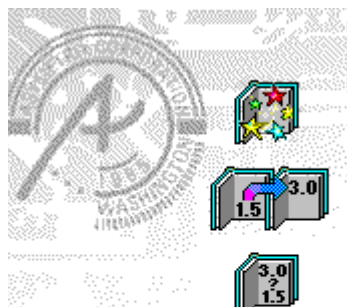


# Contents

For additional assistance, contact [Technical Support](#)

A printable version of this file is available as [RELNOTES.WRI](#).



## Features new in Multimedia ToolBook

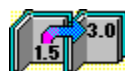
### 3.0

### Converting books from earlier versions

### Features that work differently in Multimedia ToolBook 3.0

### Documentation additions

### Documentation corrections



## Converting books from earlier versions

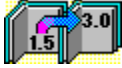
### [How to convert books from earlier versions](#)

- Recompiling scripts
- Keyword conflicts
- Books with stripped scripts

### [Recompiling scripts created with Early Access versions of Multimedia ToolBook](#)

### [Converting multimedia applications](#)

### [Maintaining old and new versions of Multimedia ToolBook](#)



## How to convert books from earlier versions

Converting books from earlier versions

See also...

The Multimedia ToolBook 3.0 file format has changed from Multimedia ToolBook 1.5. To use your existing 1.5x books in Multimedia ToolBook 3.0, you must convert them.

**Important** Once a book is converted to the new file format, you will not be able to open or otherwise access it in Multimedia ToolBook 1.5.

### To convert your 1.5x books:

1. Back up all your books before opening them in Multimedia ToolBook 3.0.  
Multimedia ToolBook automatically backs up a version of each book it converts and gives it the extension .OLD. However, for extra safety you should save your own backup copy of each file.  
Be especially careful to back up all system books and other books that are accessed from within your application.
2. Confirm that you have enough free space on your hard disk to save a duplicate copy of your books.
3. Open each book individually.  
When you open your Multimedia ToolBook 1.5x books in Multimedia ToolBook 3.0, your books are automatically converted to Multimedia ToolBook's new file format. This process may take some time if your book is large.

If your application contains multimedia elements, see [Converting multimedia applications](#) for details about converting to Multimedia ToolBook 3.0.

## Recompiling scripts

Multimedia ToolBook 3.0 features an updated compiler. To bring scripts up to date, Multimedia ToolBook recompiles them automatically.

If errors are reported during the conversion, check the conversion log file to determine the source of the error. We recommend that you then run the Script Walker utility (SCRWALK.TBK) and open each book to update all your scripts in one pass. Remember to update your system books as well. (You do not need to update system books shipped with Multimedia ToolBook 3.0, such as MTB30.SBK).

**Note** If your Multimedia ToolBook 1.5 scripts use syntax no longer supported by Multimedia ToolBook 3.0, they cannot be recompiled until you fix the syntax errors.

## Keyword conflicts

While converting books from Multimedia ToolBook 1.5x, Multimedia ToolBook 3.0 automatically adds an at symbol (@) to the beginning of any user-defined property, function, or variable in your scripts that conflicts with a new keyword. This ensures that your scripts will continue to execute correctly.

**Note** If scripts cannot be converted (for example, if they use syntax no longer allowed in Multimedia ToolBook), Multimedia ToolBook marks the script with a special code to indicate that it is an old script that was not converted. Edit the script to remove syntax errors. Multimedia ToolBook will then automatically detect that it has been marked and add the @ operator to words that conflict with new keywords.

Multimedia ToolBook cannot automatically add an at symbol to the following keywords because they are used with DLL declarations:

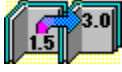
BYTE  
DWORD  
DOUBLE  
FLOAT  
INT  
LONG  
POINTER  
STRING

If these words appear in your script as the names of variables or user properties, you must manually add the at symbol as a prefix or change the name.

## Books with stripped scripts

Multimedia ToolBook cannot convert books whose script text has been removed with the Script Remover (REMOVER.EXE) utility provided in the Multimedia ToolBook 1.5 Developer Utilities. Multimedia ToolBook recompiles all scripts when it converts books to the new file format, so the original script text must be present. If you open a book whose scripts have been removed, Multimedia ToolBook converts the objects.

Stricter OpenScript syntax  
Extended user property and variable references



## Maintaining old and new versions of Multimedia ToolBook

Converting books from earlier versions

**See also...**

When you install Multimedia ToolBook 3.0, you can continue working with earlier versions of Multimedia ToolBook. Keep these points in mind when using more than one version of Multimedia ToolBook:

- If you convert a book to Multimedia ToolBook 3.0 format, you can no longer use it with earlier versions of Multimedia ToolBook. If you want to use a book with both Multimedia ToolBook 1.5 and Multimedia ToolBook 3.0, you must make a copy for each version.
- Multimedia ToolBook executables (.EXE files) and DLLs have new names in Multimedia ToolBook 3.0 so that they don't conflict with older versions of these files. You can continue to use older file names in the scripts of your Multimedia ToolBook 1.5 applications; when you convert applications to Multimedia ToolBook 3.0, update them by substituting new file names.
- You can launch the appropriate version of Multimedia ToolBook automatically when you click on a .TBK file in the Windows File Manager or use the Program Manager Run command to run a .TBK file. If you associate the new utility TBLOAD.EXE with your .TBK files, it can detect which version of Multimedia ToolBook created the file and launch it.

[How to convert books from earlier versions](#)

[New executable and DLL file names](#)

[Associating TBK files with Multimedia ToolBook 1.5 and 3.0](#)

## Technical support contact information

### Telephone support

Contact Asymetrix at the telephone numbers listed below for information on telephone support contracts.

<b>Australia/Asia Pacific</b>	(61+3) 5255471
<b>Europe (except France and Germany), Middle East, Africa, Russia</b>	44-923-208-433
<b>UK</b>	0800-716-957 (freephone)
<b>France</b>	05-90-83-19 (freephone)
<b>Germany</b>	01-30-81-27-07 (freephone)
<b>USA and rest of world</b>	206-637-1600

### Online services

Asymetrix provides complimentary support via fax, Asymetrix BBS, CompuServe, America Online, and Internet to registered users. Technical support responds to online queries within 48 hours (Monday to Friday).

#### Technical support fax

- Australia/Asia Pacific (61+3) 5255-482
- Europe 44-923-208-419
- USA 206-454-0672

#### Asymetrix BBS

- Line 1 (1200-2400 baud/9600 baud, 206-451-1173  
US Robotics HST mode)
- Line 2 (9600-14,400 baud v.32bis) 206-451-8290

#### America Online

- Find Asymetrix in the Industry Connection, a subset of the Computing and Software area.

#### CompuServe

- Windows Third Party Developer A forum, section 1 *go asymetrix or go winapa*
- Multimedia Vendors forum, Section 15 *go multiven*
- IBM Ultimedia Tools A forum, Section 5 *go ultiatools*

#### Internet

- techsup@asymetrix.com
- support@asymetrix.com

- **Recompiling scripts created with Early Access versions of  
Multimedia ToolBook**

Converting books from earlier versions

Multimedia ToolBook 3.0 features an updated compiler. To bring scripts up to date, Multimedia ToolBook recompiles them automatically if it detects that the script was compiled using the older compiler. Books created with Early Access will initially experience a slowdown as Multimedia ToolBook encounters and recompiles scripts not yet updated. We recommend that you run the Script Walker utility (SCRWALK.TBK) and open each book to update all your scripts in one pass. Remember to update your system books as well (you do not need to update system books shipped with Multimedia ToolBook 3.0 such as MTB30.SBK).



## • Converting multimedia applications

### • Converting books from earlier versions

You can convert the multimedia aspects of applications created in Multimedia ToolBook 1.5 to Multimedia ToolBook 3.0 in one of three ways:

- **Continue to call the multimedia DLL functions.** Instead of using the system book TBKMM.SBK, use the system book MTB30MM.SBK. This system book links the multimedia functions you used in your application (the functions are now in MTB30MM.DLL instead of TBKMM.DLL). Do not use the version of TBKMM.SBK provided with Multimedia ToolBook 1.5.
- **Use the `callMCI()` function.** Substitute calls to the `callMCI()` function for the `tbkMCI()` calls in your application. Because `callMCI()` is a native OpenScript function, you can execute MCI commands without requiring a system book to link DLL functions.
- **Rewrite using new multimedia features.** Rewrite the multimedia portions of your application to take advantage of the new capabilities in Multimedia ToolBook 3.0, including clips, stages, and OpenScript commands such as `mmPlay`. This is the recommended method; although the conversion effort is more involved, you can add new features to your application, and it becomes more flexible and robust.

[How to convert books from earlier versions](#)  
[Obsolete OpenScript properties, messages, commands, and functions](#)  
[Media packager](#)  
[Multimedia clips](#)  
[New OpenScript commands \(multimedia\)](#)  
[New OpenScript messages \(multimedia\)](#)  
[New OpenScript properties](#)  
[OpenScript support for multimedia](#)  
[Stages](#)



## Documentation corrections

The documentation set contains a small number of technical errors. Typographic errors that do not affect the accuracy of information are not noted in this list. For details about a particular error, click the correction text.

- ▶ **ToolBook User Manual**
- ▶ **OpenScript Reference Manual**
- ▶ **Multimedia ToolBook Manual**



## Documentation corrections

The documentation set contains a small number of technical errors. Typographic errors that do not affect the accuracy of information are not noted in this list. For details about a particular error, click the Correction text.

### ▼ ToolBook User Manual

Page	Correction
GS-5,6	<a href="#">Using the Multimedia ToolBook tutorial</a>
GS-10	<a href="#">What's New file</a>
1-6+	<a href="#">Sample application pictures</a>
3-26	<a href="#">Adding a draw object to a group</a>
4-7	<a href="#">Importing books</a>
4-16	<a href="#">Creating passwords</a>
5-5	<a href="#">Excluding buttons from the tabbing order</a>
10-6	<a href="#">Bounds of paintObject</a>
11-12	<a href="#">SkipNavigation property</a>
11-30	<a href="#">menuBar property</a>
11-39	<a href="#">Clarification of send and to get with the in control structure</a>
11-47	<a href="#">Displaying a dialog box using viewers (example)</a>
12-13	<a href="#">Setting OLE updateType</a>
12-19	<a href="#">Editing an embedded object</a>
12-23	<a href="#">PrimaryAction and secondaryAction keywords</a>
13-6	<a href="#">Menus as resources</a>
13-25	<a href="#">Disable menuItem and enable menuItem</a>
13-33	<a href="#">menuBar parameter in popMenu( )</a>
14-4	<a href="#">Extracting color palettes from resources</a>
14-15	<a href="#">Exporting resources</a>
15-8	<a href="#">printerStyle value</a>
15-13	<a href="#">Print Header and Print Footer dialog boxes</a>
15-15, 15-16	<a href="#">Data format of text</a>
15-17	<a href="#">Mismatched field names</a>
16-5	<a href="#">Importing fixed-field files</a>
16-12	<a href="#">Importing pages</a>
17-7	<a href="#">Setting up Runtime Multimedia ToolBook</a>
21-9	<a href="#">Using parameters with messages</a>
22-11	<a href="#">Parameters in handlers</a>
22-18	<a href="#">Graphic operator</a>
23-6	<a href="#">Maximum size of long integer</a>
23-7	<a href="#">Color data type</a>
23-14	<a href="#">Passing arrays by value</a>
24-28	<a href="#">verticalDisplayRes( ) and horizontalDisplayRes( )</a>
A-11	<a href="#">Finding strings with the is in operator</a>

### ► OpenScript Reference Manual

### • Multimedia ToolBook Manual

•

## Documentation corrections

The documentation set contains a small number of technical errors. Typographic errors that do not affect the accuracy of information are not noted in this list. For details about a particular error, click the correction text.

•

### ToolBook User Manual

▼

### OpenScript Reference Manual

<u>Page</u>	<u>Correction</u>
1-4+	<a href="#">Size property</a>
1-54	<a href="#">ReaderStatusBar viewer property</a>
2-23	<a href="#">AutoSize viewer property</a>
2-47	<a href="#">clear command</a>
2-62	<a href="#">CreateHotword message</a>
2-70	<a href="#">DefaultPosition of viewers</a>
2-122	<a href="#">GDIHandle() function</a>
2-145, 2-147	<a href="#">International system properties</a>
2-216	<a href="#">ParentHandle property</a>
2-263	<a href="#">RichText property</a>
2-280	<a href="#">seekFile command</a>
2-315	<a href="#">StoredImages property</a>
2-344	<a href="#">sysVersion</a>
2-347	<a href="#">TargetWindow property</a>
2-356	<a href="#">Style of target</a>
2-362	<a href="#">Transition command</a>
3-19	<a href="#">GetListBoxSelection() function</a>
3-55, 3-56	<a href="#">GetModuleList(), getModulePath()</a>
A-14	<a href="#">TextFromPoint() function</a>

•

### Multimedia ToolBook Manual

## Documentation corrections

The documentation set contains a small number of technical errors. Typographic errors that do not affect the accuracy of information are not noted in this list. For details about a particular error, click the correction text.

- **ToolBook User Manual**
- **OpenScript Reference Manual**
- ▼ **Multimedia ToolBook Manual**

Page	Correction
6-17	<a href="#">sysError at idle</a>
6-31	<a href="#">CDMediaPath in comment</a>
10-9	<a href="#">HDMediaPath property</a>
10-17	<a href="#">mmBackgroundPalette property</a>
10-18	<a href="#">mmClose command</a>
10-24	<a href="#">mmPause command</a>
10-28	<a href="#">mmRewind command</a>
10-34	<a href="#">mmStatus property</a>
10-36	<a href="#">mmStop command</a>



## Using the Multimedia ToolBook tutorial

### Documentation corrections

1 of 35

Where: ToolBook User Manual, pages GS-5, GS-6

Another way to start the tutorial is to double-click the Multimedia ToolBook Tutorial icon in the Multimedia ToolBook Program Manager group.

Step 2 suggests that you click an option in the Contents screen to learn about a particular feature. Instead, you should click the Map button in the Introduction screen for Unit 1 to see a list of units and the lessons in them.



## What's New file

Documentation corrections

2 of 35

Where: [ToolBook User Manual](#), page GS-10

There is no file called What's New; information about new features and converting applications appears in this Help application.



## Sample application pictures

Documentation corrections

3 of 35

Where: [ToolBook User Manual](#), Chapter 1

The pictures in Chapter 1 of the tutorial application do not reflect the actual Multimedia ToolBook 3.0 tutorial.





## Adding a draw object to a group

Documentation corrections

4 of 35

Where: [ToolBook User Manual](#), page 3-26

Step 1 of the instructions for adding a draw object should read:

1. Double-click any object in the group to which you want to add a new object.



## Importing books

Documentation corrections

5 of 35

Where: [ToolBook User Manual](#), page 4-7

In the first OpenScript example, the word "book" should not be inside quotation marks. The example should read:

```
import book "c:\mtb30\add.tbk"
```



## Creating passwords

Documentation corrections

6 of 35

Where: [ToolBook User Manual](#), page 4-16

Multimedia ToolBook accepts passwords in any language, not just English.



## Excluding buttons from the tabbing order

Documentation corrections

7 of 35

Where: [ToolBook User Manual](#), page 5-5

The button option Exclude From Tab Order listed in step 3 on this page is described incompletely. When you choose this option, Multimedia ToolBook does skip the button when you attempt to tab to it or if you press its mnemonic access key.

However, Multimedia ToolBook does not ignore the tab. Instead, Multimedia ToolBook moves the focus to the next object in the layer order that can accept it. For example, if a button that is excluded from the tab order is next to a field, the focus moves to the field when you try to tab to the button. If you are not aware of this behavior, or if you have set the Exclude From Tab Order option inadvertently, the results of tabbing to the button can be confusing.



## Bounds of paintObject

### Documentation corrections

8 of 35

Where: ToolBook User Manual, page 10-6

In the OpenScript example, the words `paint object` should be one word. The correct example is:

```
bounds of paintObject "flower" = 100,100,2000,2000
```



## **skipNavigation property**

Documentation corrections

9 of 35

Where: [ToolBook User Manual](#), page 11-12

The `skipNavigation` property is ignored when you use `go` to navigate. Therefore, remove the parenthetical remark, "or the `go` command with these values" in the first paragraph of this page.



## menuBar property

### Documentation corrections

10 of 35

Where: ToolBook User Manual, page 11-30

The first example at the top of the page should reference the property `menuBar`, not `menu Bar`. The correct example is:

```
menuBar of viewer "Map" = menu ID 1
```



## Clarification of `send` and `to get` with the `in` control structure

Documentation corrections

11 of 35

Where: ToolBook User Manual, page 11-39

The `in` control structure (to change the target window) changes the context for commands but it does not change the effect of the `send` command, the object hierarchy of the target object, or the `to get` control structure.

In the `send` and `to get` commands, the target is the object itself. If the object does not contain a handler for the message, the message is forwarded up the hierarchy of that object, not up the hierarchy of the target window.

For example, imagine that you have two windows open: the Main window and a small viewer called "Quick Jump," which contains buttons called "Contents" and "Index." These buttons send the messages `contentsPage` and `indexPage`, respectively. The handlers for these messages are in the background of the page displayed in the Main window.

You might write a handler such as this for the Contents button, intending to call the handler in the Main window's background:

```
to handle buttonClick
  in viewer id 0
    send contentsPage
  end
end buttonClick
```

This won't work. Even though you explicitly set the target window to be the Main window before sending the message, the message is sent first to the Contents button, then to its page, and so on up the button's hierarchy. Because the page in the Quick Jump viewer does not share a background with the Main window, the handler for `contentsPage` is not found.

To fix the problem, send the message to an explicit target, namely the current page in the Main window. Within the `in` control structure, Multimedia ToolBook interprets implicit references as referring to the current window, so this small change will achieve the intended effect:

```
to handle buttonClick
  in viewer id 0
    send contentsPage to this page
  end
end buttonClick
```



•

## Displaying a dialog box using viewers (example)

Documentation corrections

12 of 35

Where: ToolBook User Manual, page 11-47

In step 7, the first line of the `buttonClick` handler reads:

```
showPage = "dialog page"
```

It should read:

```
showPage = page "dialog page"
```

## • Setting OLE `updateType`

Documentation corrections

13 of 35

Where: ToolBook User Manual, page 12-13

In both OpenScript examples, the object reference is missing. Change the commands to something like these examples:

```
updateType of OLE ID 1 = automatic
```

```
upToDate of OLE "chart" = true
```

•

## Editing an embedded object

Documentation corrections

14 of 35

Where: ToolBook User Manual, page 12-19

The Object menu item referred to in step 1 under "Editing an embedded object" does not exist. Instead, if an OLE object is selected, you see a menu item with the form "<action> <OLE server> Object," where

- <action> is the type of action associated with the object, such as "Edit."
- <OLE server> is the name of the object's OLE server.

For example, if the currently selected OLE object is a bitmap, the menu item is "Edit Paintbrush Picture Object."

If the object has more than one possible action, the menu item is "<OLE server> Object," and it displays a cascading menu of possible actions. For example, if the OLE object is a sound file, the menu item is "Sound Object", and it displays a cascading menu with the items "Play" and "Edit."

## • **primaryAction and secondaryAction keywords**

Documentation corrections

15 of 35

Where: ToolBook User Manual, page 12-23

The last paragraph on this page refers to entries for `primaryAction` and `secondaryAction` in Chapter 2 of the OpenScript Reference Manual. However, there are no separate entries for these keywords in the book. Instead, they are documented under `action` on page 2-5 of the OpenScript Reference Manual.

In addition, in the last example the message `oleAction` is sent to a target object. However, the `oleAction` message does not allow a target parameter; it can only be sent to the currently selected OLE contained object. The correct form of the example is:

```
send oleAction secondaryAction
```

•

## Menus as resources

Documentation corrections

16 of 35

Where: ToolBook User Manual, 13-6

A note at the bottom of the chart says all menu bars except the Author menu bar are editable resources. However, the Print Preview menu bar also is not editable.

•

## **menuBar parameter in popMenu ( )**

Documentation corrections

17 of 35

Where: ToolBook User Manual, page 13-33

In the second line of the example, the word "menu" should be "menuBar". The line should read:

```
get popupMenu(pLoc, menuBar "rightClick", object of target)
```

- 

## **disable menuItem, enable menuItem**

Documentation corrections

18 of 35

Where: ToolBook User Manual, page 13-25

The examples for `disable menuItem` and `enable menuItem` should say "in menu," not "of menu."

•

## Extracting color palettes from resources

Documentation corrections

19 of 35

Where: ToolBook User Manual, page 14-4

The second footnote below the table on this page states that Multimedia ToolBook can extract color palettes from bitmaps and Windows metafiles. However, Multimedia ToolBook can extract color palettes only from palette (.PAL) files.



•

## Exporting resources

Documentation corrections

20 of 35

Where: ToolBook User Manual, page 14-15

In the OpenScript example for exporting a resource, the target file name should be in quotation marks. The correct example is:

```
export resource cursor id 100 as "point.cur"
```

•

## **printerStyle value**

Documentation corrections

21 of 35

Where: ToolBook User Manual, page 15-8

In the second line of the first example, the correct printer style is "groups", not "group". The line should read:

```
printerStyle = groups
```

•

## **Print Header and Print Footer dialog boxes**

Documentation corrections

22 of 35

Where: ToolBook User Manual, page 15-13

The dialog box for defining headers and footers has changed. To finish defining a header or footer, click Close, not OK. To cancel a header or footer, delete the text in the dialog box or set the header or footer properties to null using OpenScript.

## **Data format of text**

### **Documentation corrections**

23 of 35

Where: ToolBook User Manual, pages 15-15, 15-16

The format expression for a number of examples on these two pages is missing. On page 15-15, the example should read:

```
text of recordField "Total" > 100 as text
```

In the second line of the first example, the correct printer style is "groups", not "group". The line should read:  
"text of recordfield "total" > 100 as text"

On the example next to "Field contains a range of numbers" on page 15-16, the second line should read:  
"and text of recordfield "Contribution" >= 100 as text"

On the same page, the example next to "Field contains today's date" should read:  
"text of recordfield "PurchaseDate" > sysdate as text"

- **Mismatched field names**

**Documentation corrections****24 of 35**

Where: ToolBook User Manual, page 15-17

In the example there is a discrepancy between the field name `Hired` in the second line and the name `Hire Date` in the `printerConditions` line; these should be the same. For example, change the second line to this:

```
printerFields = "First name,Last name,Title,Hire Date"
```

## • **Importing fixed-field files**

Documentation corrections

25 of 35

Where: ToolBook User Manual, page 16-5

In the OpenScript example for importing fixed-field text files, the list of field lengths should be in quotation marks.

The correct example is:

```
import "c:\data\customer.txt" as fixed using "3,5,8,12"
```

•

## Importing pages

Documentation corrections

26 of 35

Where: ToolBook User Manual, page 16-12

In the OpenScript example for importing pages, the source file should include the extension ".TBK." The correct example is:

```
go last page
```

```
import pages 2 to 16 of book "c:\mybooks\glossary.tbk" without background
```

## • **Setting up Runtime Multimedia ToolBook**

•  
Documentation corrections

27 of 35

Where: ToolBook User Manual, page 17-7

The procedure described for setting up a Runtime version of Multimedia ToolBook has been superseded by the new Asymetrix Setup Utility, SETUPMGR.TBK. For details about setting up applications using this new utility, launch SETUPMGR.TBK from the Multimedia ToolBook 3.0 Program Manager group, then choose Help from the menu.



[Distributing Multimedia ToolBook applications](#)  
[Features not supported in Runtime](#)  
[New executable and DLL file names](#)  
[New tools for distributing applications](#)  
[Shipping files with Runtime Multimedia ToolBook](#)

## • Using parameters with messages

Documentation corrections

28 of 35

Where: [ToolBook User Manual](#), page 21-9

The first example program under "Using parameters with messages" uses the name "position" as a variable. Because `position` is an OpenScript keyword, the script will not compile. Substitute another variable name such as "pos" instead:

```
to handle buttonclick pos
    request "you clicked at " && pos
end
```

**Tip** You can also add an at symbol (@) in front of the word "position" to distinguish it from the OpenScript keyword. For details, refer to the [ToolBook User Manual](#), Chapter 23, "Variables, values, and text."

•

## Parameters in handlers

Documentation corrections

29 of 35

Where: ToolBook User Manual, page 22-11

The parameters in the first example on this page should be separated by a comma. The correct example is:  
to get GrossMargin Sales, COGS

•

## **graphic operator**

Documentation corrections

30 of 35

Where: ToolBook User Manual, page 22-18

The table of operators for string evaluation does not include the operator `graphic`, which assigns or returns graphics that are part of a text string. For details about this operator, see page 2-126 in the OpenScript Reference Manual or the online Help.

•

## Maximum size of `long` integer

Documentation corrections

31 of 35

Where: [ToolBook User Manual](#), page 23-6

The correct range for a variable with the data type of `long` is -2147483648 to 2147483647.

•

## **color data type**

### **Documentation corrections**

32 of 35

Where: ToolBook User Manual, page 23-7

The `color` data type will accept only HLS values, not RGB values.

## Passing arrays by value

Documentation corrections

33 of 35

Where: ToolBook User Manual, page 23-14

In the first handler of the example script, you cannot use the `get` command with an expression that returns an array because the variable `It` is not an array. Change the fifth line of the script to read:

```
vAlphabet = invertArray( vAlphabet )
```

If you want to preserve the value of `vAlphabet`, substitute the following handler for the entire first handler in the example:

```
to handle buttonClick
  local vAlphabet[26]
  local vInvertedAlphabet[26]
  --(fill vAlphabet[] here)
  vInvertedAlphabet = invertArray( vAlphabet )
  --(further processing here)
end
```

In addition, in the `to get` handler, you must declare the passed array as a fixed array with the keyword `fixed`. Change the first line of the `to get` handler as follows:

```
to get invertArray fixed vPassedArray[]
```

**Note** You can also now pass arrays by reference, which makes it easier to share arrays between handlers.

Passing arrays by reference  
Declaring arrays as fixed or dynamic



•

## **verticalDisplayRes () and horizontalDisplayRes ()**

Documentation corrections

34 of 35

Where: ToolBook User Manual, page 24-28

The functions `verticalDisplayRes ()` and `horizontalDisplayRes ()` are not in TB30DOS.DLL as stated on this page, but in TB30WIN.DLL.

- 

## Finding strings with the `is in` operator

Documentation corrections

35 of 35

Where: ToolBook User Manual, Appendix A, page A-11

The `in` operator in the fifth bulleted paragraph should be `is in`.

•

## **size property**

### **Documentation corrections**

**1 of 19**

Where: OpenScript Reference Manual, page 1-4 and following

In all references to the `size` property, the description should note that the property returns the "width and height" of the object, not the other way around. The first value in the `size` property is the object's width; the second is the object's height.

•

## **readerStatusBar viewer property**

Documentation corrections

2 of 19

Where: OpenScript Reference Manual, page 1-54

The entry for `readerStatusBar` on this page incorrectly states that the property specifies whether the status bar can be visible in a viewer at Reader level. It should state that this property determines whether a status bar is visible when the viewer first appears. The entry for this property on page 2-242 is correct.

•

## autoSize viewer property

Documentation corrections

3 of 19

Where: OpenScript Reference Manual, page 2-23

The documentation for a viewer's `autoSize` property states that if this property is `true`, the viewer resizes itself to its current page each time the viewer is shown or its `currentPage` property changes. More correctly, the viewer resizes itself any time the page size changes, either because the `currentPage` changes to a page of a different size, or because the background or book `pageSize` property defining the size of the `currentPage` changes.

•

## **clear command**

Documentation corrections

4 of 19

Where: OpenScript Reference Manual, page 2-47

The description of the `clear` command should note that if you attempt to clear a property that requires a value, Multimedia ToolBook displays an error. For example, the following command produces an error:

```
clear saveOnClose of this book
```

•

## **createHotword message**

Documentation corrections

5 of 19

Where: OpenScript Reference Manual, page 2-62

This message is incorrectly listed as causing an error in Runtime Multimedia ToolBook; the message works as documented in both the full and Runtime versions of Multimedia ToolBook.

•

## **defaultPosition of viewers**

Documentation corrections

6 of 19

Where: OpenScript Reference Manual, page 2-70

The default position of viewers is not `center`, as documented under `defaultPosition`, but `none`. This applies to viewers you create as well as to the Main window.



•

## **GDIHandle() function**

Documentation corrections

7 of 19

Where: [OpenScript Reference Manual](#), page 2-122

This function cannot be used to return the handle for a menu resource.

# • International system properties

Documentation corrections

8 of 19

Where: OpenScript Reference Manual, page 2-145, 2-147

The properties `sysIDigits` and `sysILZero` do not automatically set the default value of `sysNumberFormat`. You can set a new value for `sysNumberFormat` using explicit formats, or by concatenating explicit values with the values of `sysIDigits` and `sysILZero`.

•

## **parentHandle property**

Documentation corrections

9 of 19

Where: OpenScript Reference Manual, page 2-216

The second paragraph states that valid values for this property are window handles or `null`. It should state that valid values are window handles or zero (0).

•

## **sysVersion**

Documentation corrections

10 of 19

Where: OpenScript Reference Manual, page 2-344

In Multimedia ToolBook 3.0, the `sysVersion` property returns 3.0 MM United States.

## **richText property**

### Documentation corrections

11 of 19

Where: OpenScript Reference Manual, page 2-263

The second paragraph states that if you extract a smaller section of rich text from another field, the `richText` property returns `null`. It should state that the property returns the requested value based on the value of the field including the RTF information. For example, if you request `textline 2 of richText` of field "test", Multimedia ToolBook returns whatever string of characters is found between the first and second carriage return-linefeed combinations. That information will almost certainly be from the RTF header information instead of from the text.

Because it is almost always impossible to predict what information will be returned in this way, it is recommended that you not attempt to extract substrings using the `richText` property.

- **seekFile command**

Documentation corrections

12 of 19

Where: [OpenScript Reference Manual](#), page 2-280

The syntax for the seekFile command incorrectly uses the word `to` instead of `for`. The syntax statement should read:

```
seekfile <file name> for <position> from <location>
```

The examples on the following page are correct.

## • **storedImages property**

### Documentation corrections

13 of 19

Where: [OpenScript Reference Manual](#), page 2-315

The description of the value returned by this property is not correct. The documentation should state that the property returns a series of textlines, each of which contains five items:

<u>Item</u>	<u>Contents</u>	<u>Description</u>
1	bits per pixel	Number of bits per pixel used by the display device
2	color planes	Number of color planes used by the display device
3	logical x units	Number of logical horizontal units used by the display device
4	logical y units	Number of logical vertical units used by the display device
5	size	Size of the stored image in kilobytes

## • **targetWindow property**

### Documentation corrections

14 of 19

Where: [OpenScript Reference Manual](#), page 2-347, 2-348

On page 2-347: The commands `print`, `print eject`, and `sort` are not available in the context of the target window.

On page 2-348: The last line of the last example has an extra set of quotation marks around the page reference. The line should read:

```
currentPage of targetWindow = page 1 of book "bar.tbk"
```

•

## Style of target

Documentation corrections

15 of 19

Where: OpenScript Reference Manual, page 2-356

In the third line of the example, the property should not be `buttonStyle`, but `borderStyle`. The correct example is:

```
return the borderStyle of the target
```



- 

## **transition command**

Documentation corrections

16 of 19

Where: OpenScript Reference Manual, page 2-362

The transition effect `slide` does not support a direction (`in` or `out`).

•

## **getListBoxSelection() function**

Documentation corrections

17 of 19

Where: OpenScript Reference Manual, page 3-19

The syntax for this function lists a parameter called `<selection>` that does not exist. The declaration and example are correct.

•

## **getModuleList(), getModulePath()**

Documentation corrections

18 of 19

Where: OpenScript Reference Manual, pages 3-55, 3-56

The example programs for the DLL functions `getModuleList()` and `getModulePath()` link the incorrect DLL.

Both functions are in TB30WIN.DLL, so the correct form of the `linkDLL` statement is:

```
linkDLL "TB30WIN.DLL"
```

•

## **textFromPoint() function**

Documentation corrections

19 of 19

Where: OpenScript Reference Manual, page A-14 in the Appendix

The `textFromPoint()` function does not accept a second parameter that refers to a viewer, as suggested by the entry under "Mouse and keyboard functions." The function always operates in the context of the target viewer.

•

## **sysError at idle**

Documentation corrections

1 of 9

Where: [Multimedia ToolBook User Manual and OpenScript Reference](#), page 6-17

Multimedia ToolBook does not set `sysError` to `true` when it reaches its idle state; you must manually set this property to prevent errors from compounding.

## • **CDMediaPath in comment**

Documentation corrections

2 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 6-31

In the last example on the page, the first comment references a property called `sysCDMediaPath`, which doesn't exist. The line should read:

```
--Sets CDMediaPath to first CD-ROM drive and
```

The error does not affect how the example runs, but could be confusing.

- **HDMediaPath property**

**Documentation corrections****3 of 9**

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-9

In the third line of the example for HDMediaPath, the phrase `of this book` is missing. The line should read:

```
push "c:\media\sound\",c:\media\video" onto HDMediaPath of this book
```

•

## **mmBackgroundPalette property**

Documentation corrections

4 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-17

The default for the mmBackgroundPalette property is true, not false.



- **mmClose command**

Documentation corrections

5 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-18

If you use specify a particular media type rather than a media clip, the media type must be in quotation marks. For example, to close all digital audio clips, use a command such as this:

```
mmClose "waveAudio"
```

mmPause command  
mmRewind command  
mmStop command

## **mmPause command**

### **Documentation corrections**

6 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-24

If you use specify a particular media type rather than a media clip, the media type must be in quotation marks. For example, to pause all digital audio clips, use a command such as this:

```
mmPause "waveAudio"
```

mmClose command  
mmRewind command  
mmStop command

## **mmRewind command**

Documentation corrections

7 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-28

If you use specify a particular media type rather than a media clip, the media type must be in quotation marks. For example, to rewind all digital audio clips, use a command such as this:

```
mmRewind "waveAudio"
```

mmClose command  
mmPause command  
mmStop command

•

## **mmStatus property**

### **Documentation corrections**

8 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-34

The description of the `mmStatus` property incorrectly states that it is nonpersistent. The property is persistent; you can get the value of this property for a clip that is closed.

## **mmStop command**

Documentation corrections

9 of 9

Where: Multimedia ToolBook User Manual and OpenScript Reference, page 10-36

If you use specify a particular media type rather than a media clip, the media type must be in quotation marks. For example, to stop all digital audio clips, use a command such as this:

```
mmStop "waveAudio"
```



mmClose command  
mmPause command  
mmRewind command



## Features that work differently in Multimedia ToolBook 3.0

- User interface
- Files
- Multimedia
- Objects and properties
- Menus and menu commands
- OpenScript

- 

## Features that work differently in Multimedia ToolBook 3.0

- **User interface**

- [Changed keyboard accelerators](#)

- [Evaluating expressions in the Command window](#)

- [Starting Runtime Multimedia ToolBook without a file name](#)

- [ID numbers of objects during recording](#)

- **Files**

- **Multimedia**

- **Objects and properties**

- **Menus and menu commands**

- **OpenScript**

- 

## Features that work differently in Multimedia ToolBook 3.0

- **User interface**

- **Files**

- [Change in file format](#)

- [Using the MTB30.INI and ASYM.INI files](#)

- [New executable and DLL file names](#)

- [MTB30NET.EXE required for all file access](#)

- **Multimedia**

- **Objects and properties**

- **Menus and menu commands**

- **OpenScript**

- 

## Features that work differently in Multimedia ToolBook 3.0

- User interface
- Files
- Multimedia
  - Global variable functions
- Objects and properties
- Menus and menu commands
- OpenScript

- 

## Features that work differently in Multimedia ToolBook 3.0

- User interface
- Files
- Multimedia
- Objects and properties

[Importing picture graphics](#)

[Visible property of groups](#)

[Changes in wordwrap behavior](#)

- Menus and menu commands
- OpenScript

- 

## Features that work differently in Multimedia ToolBook 3.0

- User interface
- Files
- Multimedia
- Objects and properties
- Menus and menu commands

[New Author menu](#)

[Author menu item in Runtime Multimedia ToolBook](#)

- OpenScript

•

## Features that work differently in Multimedia ToolBook 3.0

- User interface
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[Extended user property and variable references](#)

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## Changed keyboard accelerators

### Features that work differently in Multimedia ToolBook 3.0

A number of Multimedia ToolBook's keyboard accelerators have changed. To view the new keyboard accelerator assignments, browse through the menus.

You can now move the edit cursor one word at a time in a field by pressing the Ctrl+Left Arrow or Ctrl+Right arrow keys. To accommodate this change, Multimedia ToolBook's new keyboard accelerators for page navigation are as follows:

<u>Navigation</u>	<u>Old accelerator</u>	<u>New accelerator</u>
Previous Page	Ctrl+Left	Alt+Left
Next Page	Ctrl+Right	Alt+Right
First Page	Ctrl+Up	Alt+Up
Last Page	Ctrl+Down	Alt+Down

**Note:** To move from word to word in the Command window, use Alt+arrow keys.

Global accelerator keys  
Improved Command window

•

## Evaluating expressions in the Command window

Features that work differently in Multimedia ToolBook 3.0

Because of the new assignment operator (=), you can no longer evaluate expressions by typing them in the Command window by themselves. Instead, enter a full command such as the following:

```
put sqrt(540)
request uniqueName of this book
```

- **Starting Runtime Multimedia ToolBook without a file name**

**Features that work differently in Multimedia ToolBook 3.0**

You can start the Runtime version of Multimedia ToolBook 3.0 without specifying a file name in the command line. In Multimedia ToolBook 1.5, executing TBOOK.EXE without a file name would result in an error message and Multimedia ToolBook would not start. If you start Runtime Multimedia ToolBook 3.0 (MTB30RUN.EXE) without a file name, Multimedia ToolBook displays an Open dialog box from which you can choose a book.

•

## **ID numbers of objects during recording**

### **Features that work differently in Multimedia ToolBook 3.0**

As in Multimedia ToolBook 1.5, Multimedia ToolBook 3.0 inserts the keyword `selection` into a script as you are recording it. However, if you use the right-click menu to change an object's properties while recording, Multimedia ToolBook inserts the object's actual ID number. You should examine scripts you record with the script recorder in Multimedia ToolBook 3.0 to be sure that this change does not affect how the recorded script runs.

- ## Change in file format

- ### Features that work differently in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 features a new file format for books (.TBK and .SBK files). Files from older versions of Multimedia ToolBook (including ToolBook 3.0) are converted automatically when you open them using Multimedia ToolBook 3.0, or when you refer to an object in them.

**Important** After you convert a book using Multimedia ToolBook 3.0, you cannot open it using an earlier version. Be sure to make backup copies of books that you intend to use with both versions.

Converting books from earlier versions  
Maintaining old and new versions of Multimedia ToolBook

- ## Using the MTB30.INI and ASYM.INI files

### Features that work differently in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 keeps startup information in the MTB30.INI file (in contrast to Multimedia ToolBook 1.5, which kept this information in a [TOOLBOOK] section of the WIN.INI file).

Information about graphic filters is now stored in the ASYM.INI file, which can be shared with other Asymetrix applications such as MediaBlitz! and Compel. ToolBook 1.5 stored this information in the [ToolBook Filters] section of the WIN.INI file.



## New executable and DLL file names

### Features that work differently in Multimedia ToolBook 3.0

The names of the Multimedia ToolBook executable (.EXE) files and DLLs have been changed in Multimedia ToolBook 3.0, so you can continue using your Multimedia ToolBook 1.5 applications without changing names or scripts that link DLLs. When you convert your application to Multimedia ToolBook 3.0, however, you should update scripts that link DLLs to use the new DLL names.

The old and new names appear in the tables below. For information about what files to include when you are shipping your application, see [Shipping files with Runtime Multimedia ToolBook](#)

### Development version files

<u>Old name</u>	<u>New name</u>
tbkbase.dll	mtb30bas.dll
tbkbmpt.dll	mtb30bmp.dll
tbkcomp.dll	mtb30cmp.dll
tbkedit.dll	mtb30edt.dll
tbkmm.dll	mtb30mm.dll
tbkmm.ini	mtb30mm.ini
tbknet.exe	mtb30net.exe
tbknet.exe	mtb30net.exe
tbkutil.dll	mtb30utl.dll
toolbook.exe	mtb30.exe

### Optional runtime files

<u>Old name</u>	<u>New name</u>
tbkdb3.dll	tb30db3.dll
tbkdlg.dll	tb30dlg.dll
tbkwin.dll	tb30win.dll
tbkfile.dll	tb30dos.dll

### Runtime Multimedia ToolBook files

<u>Old name</u>	<u>New name</u>
tbkrun.exe	mtb30run.exe
tbkbase.dll	mtb30bas.dll
tbkutil.dll	mtb30utl.dll
tbkcomp.dll	mtb30cmp.dll
tbkmm.dll	mtb30mm.dll

[Converting multimedia applications](#)

[Maintaining old and new versions of Multimedia ToolBook](#)

[MTB30NET.EXE required for all file access](#)

## • **Importing picture graphics**

### **Features that work differently in Multimedia ToolBook 3.0**

When you imported any graphic that created a picture in Multimedia ToolBook 1.5, the graphic was imported at a fixed size, regardless of its natural size. In Multimedia ToolBook 3.0, graphic files are imported at their true size, which can be as large or larger than the Main window. If you want to import graphic files and create fixed-size picture objects out of them, use a script such as the following:

```
importGraphic "C:\GRAPHICS\SAMPLE.TIF"  
get size of selection  
size of selection = 1920,1920*(item 2 of It/item 1 of It)
```

## • **visible property of groups**

### **Features that work differently in Multimedia ToolBook 3.0**

In Multimedia ToolBook 1.5, if you set a group's `visible` property to `true`, the `visible` property of all the objects in the group was set to `true` as well, and they became visible. If you set the group's `visible` property to `false`, all objects in the group disappeared as well.

Multimedia ToolBook no longer passes the group's `visible` property to individual objects in the group. If you hide a group, all objects in it disappear. However, if you show a group, only the objects whose `visible` property is `true` appear. If an object's `visible` property is `false`, it remains hidden.

This change may affect Multimedia ToolBook 1.5 applications that show or hide all objects in a group by showing or hiding the group. To work around this problem, you can show or hide the objects of the group. For example, these Multimedia ToolBook 1.5 statements show or hide all objects in a group:

```
show group id 23  
hide group id 23
```

To do the same in Multimedia ToolBook 3.0, use statements such as these:

```
show objects of group id 23  
hide objects of group id 23
```

If you have nested groups, you must execute these commands on all the nested groups in turn.

•

## **Changes in wordwrap behavior**

### **Features that work differently in Multimedia ToolBook 3.0**

Multimedia ToolBook 3.0 wraps text slightly differently than Multimedia ToolBook 1.5. All text now wraps the same way on the printed page as it does on screen.

If you notice that text in fields or button captions is wrapping and clipping differently, resize your fields and buttons to regain the same wrapping and clipping of text as in Multimedia ToolBook 1.5.

- 

## New Author menu

- 

### Features that work differently in Multimedia ToolBook 3.0

The Multimedia ToolBook 3.0 Author-level menu bar is changed from Multimedia ToolBook 1.5. Scripts that modify the Author-level menu bar may not work correctly if they refer to menus or items that no longer exist.

In addition, menus are now resources that can differ from book to book. For backward compatibility, Multimedia ToolBook 3.0 provides the `keepMenuBar` property that specifies whether the menu bar should be retained when you switch between books.

Menus

Author menu item in Runtime Multimedia ToolBook

## • **Author menu item in Runtime Multimedia ToolBook**

### • **Features that work differently in Multimedia ToolBook 3.0**

Runtime Multimedia ToolBook no longer automatically removes the Author menu item from the default menu bar resource assigned to the Main window. To remove it, use the OpenScript `remove menuItem` command.

You may want to remove the Author menu item from all menus, even in the full version of Multimedia ToolBook. Because the F3 accelerator key is always available, you do not require the Author menu item in order to switch to Author level in the full version of Multimedia ToolBook.

[Global accelerator keys](#)

[Managing embedded objects as resources](#)

[Menus](#)

[New Author menu](#)



## Extended user property and variable references

### Features that work differently in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 allows you to add the at symbol (@) prefix to the names of user properties, user-defined functions (to get or to set handlers), or variables to distinguish them from OpenScript keywords.

The following statements illustrate using @ to distinguish a user property name from a keyword:

```
text of field id 0 = "this goes into the text of the field"
@text of field id 0 = "this goes into a user property"
get @text of field id 0
```

The following example illustrates using @ for variable references. Without the prefix, Multimedia ToolBook would generate a syntax error because `style` is a property name:

```
local @style
@style = 1
```

There are over 180 new keywords that may conflict with user properties or variable names you used in Multimedia ToolBook 1.5. For example, one of Multimedia ToolBook's new keywords is `enabled`; if you had a user property named `enabled` in Multimedia ToolBook 1.5, you must now use the @ prefix to get or set its value:

```
get @enabled of button "Quit"
set @enabled of button "Quit" to false
```

[Converting books from earlier versions](#)

## • Passing `null` to a DLL

### Features that work differently in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 treats "" and `null` differently when you use them as string parameters to a DLL function. If you specify "", Multimedia ToolBook passes a pointer to an empty string (""). If you specify `null`, it passes a null pointer (0:0). In contrast, Multimedia ToolBook 1.5 passes a pointer to an empty string in both cases.

This change makes it easier to pass a null pointer to DLLs that distinguish between a pointer to an empty string and a null pointer (for example, the Windows `FindWindow()` function).

To ensure complete compatibility with Multimedia ToolBook 1.5, change your scripts to use "" instead of `null` when passing empty strings to DLL functions. If you do not make this change, you may encounter a general protection fault when a script passes `null` to a DLL.

If you write your own DLLs, be sure a string parameter is a null pointer before dereferencing it. Otherwise, your DLL may cause a general protection fault when Multimedia ToolBook passes `null` to it.

## • **Stricter OpenScript syntax**

### • **Features that work differently in Multimedia ToolBook 3.0**

Multimedia ToolBook 3.0 enforces OpenScript syntax more rigorously than Multimedia ToolBook 1.5 did. When you save your scripts, the OpenScript compiler does not allow some syntax that was allowed in Multimedia ToolBook 1.5. You may not be able to save some of your scripts without making minor modifications to eliminate syntax errors.

To check the syntax of an individual script, display the script in the Script editor, then choose Check Syntax from the File menu.

To review all scripts in the book in one pass, run the Script Walker utility included with Multimedia ToolBook 3.0 by double-clicking its icon from the Multimedia ToolBook 3.0 Program Manager group. Script Walker examines all of the scripts in a converted book and finds those that contain syntax errors.

[Changed OpenScript commands, functions and messages](#)

[Changes in to get handlers](#)

[Converting books from earlier versions](#)

[Extended user property and variable references](#)

[Obsolete OpenScript terms](#)

[Redeclaring variables in handlers](#)

## Changes in to get handlers

### Features that work differently in Multimedia ToolBook 3.0

Unlike Multimedia ToolBook 1.5x, Multimedia ToolBook 3.0 requires every code path in a `to get` handler to contain a `return` statement. If a `to get` handler does not contain the necessary `return` statements, its script will not compile when the book is converted. You can fix this by editing the script and adding `return` statements at appropriate locations.

For example, you might be missing a `return` statement in a `conditions` control structure that doesn't have a default branch and has no `return` statement after it. Even if you provide a `return` statement for each branch, Multimedia ToolBook requires that you provide a default `return` statement of some kind. The following handler is missing a `return` statement:

```
to get calcVal x
  conditions
    when x is 1
      return 2
    when x is 2
      return 3
  end conditions
end calcVal
```

The following two scripts illustrate corrected versions of this handler.

```
to get calcVal x
  conditions
    when x is 1
      return 2
    when x is 2
      return 3
    else
      return 0 --return added to default branch
  end conditions
end calcVal
```

```
to get calcVal x
  conditions
    when x is 1
      return 2
    when x is 2
      return 3
  end conditions
  return 0 -- return added after conditions
end calcVal
```

You might also be missing `return` statements in `if/then` control structures. If the only `return` statement is inside an `if/then` control structure that doesn't have an `else` branch, you must add at least one additional `return` statement following the `if/then` control structure.

•

## Redeclaring variables in handlers

• Features that work differently in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 does not allow you to declare the same variable twice in the same handler. You should delete duplicate variable declarations. If you're using the `local` statement to clear a local variable, use the `clear` command instead.

[Converting books from earlier versions](#)



- 

## **Null versus none**

### **Features that work differently in Multimedia ToolBook 3.0**

Multimedia ToolBook 3.0 does not allow you to use `null` and `none` interchangeably, as you could in some circumstances in Multimedia ToolBook 1.5. For example, these two statements are equivalent in Multimedia ToolBook 1.5:

```
set borderStyle to null
set borderStyle to none
```

The actual value is `none`, but Multimedia ToolBook 1.5 automatically converts `null` to `none`.

In Multimedia ToolBook 3.0 you must replace such uses of `null` with `none`.

- 

## **Changed error messages**

### **Features that work differently in Multimedia ToolBook 3.0**

A number of error messages in Multimedia ToolBook 3.0 have changed, so an error in Multimedia ToolBook 3.0 may return a different error message than the same error in Multimedia ToolBook 1.5. If your application checks for particular error messages, test carefully to ensure that your error checking still operates correctly.

# Obsolete OpenScript properties, messages, commands, and functions

## Features that work differently in Multimedia ToolBook 3.0

The following OpenScript terms are obsolete in Multimedia ToolBook 3.0. Some of the terms still work for backward compatibility with Multimedia ToolBook 1.5, but you should update your scripts to use the new terms. For more information about the new terms, see the [OpenScript Reference Manual](#) and online Help.

### Properties

<u>Term</u>	<u>Replaced with</u>	<u>Still works?</u>
caption book property	caption of mainWindow	yes
captionShown book property	set caption of mainWindow to space	no
icon book property	icon of mainWindow	yes
sysMagnification	magnification viewer property	yes
sysMousePosition	mousePosition viewer property	yes
sysRuler	rulers viewer property	yes

### Messages

<u>Term</u>	<u>Replaced with</u>	<u>Still works?</u>
align menu event message	align<Type> messages	no
palettes menu event message	(use new messages that toggle each individual palette)	no
printerSetup menu event message	printSetup	no
toggleStatus keyboard event message	statusBar message	no
windowMoved notification message	moved	no
windowShown notification message	shown	no
windowSized notification message	sized	no

### Commands and functions

<u>Term</u>	<u>Replaced with</u>	<u>Still works?</u>
activate menuItem command	enable menuItem	yes
deactivate menuItem command	disable menuItem	yes
menuState() function	menuEnabled, menuItemChecked, menuItemEnabled	yes
before after with translateWindowMessage	(forward from called handler)	yes

### Multimedia DLL functions

The following multimedia-related OpenScript terms were DLL functions in Multimedia ToolBook 1.5, but are now native OpenScript functions. You can continue to use the older functions by using the `MTB30MM.SBK` system book with your application.

<b>Function</b>	<b>Change</b>
<code>tbkMCI()</code>	<code>callMCI()</code>
<code>tbkBitmap()</code>	<code>imageCommand()</code>
<code>tbkTimerCapability()</code>	<code>timerCapability()</code>
<code>tbkTimerStart()</code>	<code>timerStart()</code>
<code>tbkTimerStop()</code>	<code>timerStop()</code>
<code>tbkMMSignal</code>	<code>MCISignal</code>
<code>tbkMMNotify</code>	<code>MCINotify</code>
<code>tbkMMTimer</code>	<code>timerNotify</code>

New commands and functions

New commands

New functions

New messages

New OpenScript properties

# Changed OpenScript commands, functions, and messages

Features that work differently in Multimedia ToolBook 3.0

## Commands

<b>Command</b>	<b>Change</b>
<code>local &lt;array&gt;</code>	Declares the dimensions of an array.
<code>system &lt;array&gt;</code>	Declares the dimensions of an array that is used as a system variable.

## Functions

<b>Function</b>	<b>Change</b>
<code>round()</code>	Accepts a parameter to specify the number of decimal places at which to round.
<code>objectFromPoint()</code>	Accepts a viewer reference.

## Messages

<b>Message</b>	<b>Change</b>
<code>moved</code>	Sends a message when a viewer is moved.

ToolBook User Manual, Chapter 23, "Variables, values, and text"

## • **Global variable functions**

### •**Features that work differently in Multimedia ToolBook 3.0**

The Multimedia ToolBook 1.5 functions listed below are still included in MTB30BMP.DLL for backward compatibility. However, they are linked automatically only if you make MTB30MM.SBK a system book. Otherwise, you must link the functions manually.

```
clearAllGlobalVars()  
getGlobalVar()  
globalVarCount()  
setGlobalVar()
```



## Converting multimedia applications

- 

## **MTB30NET.EXE required for all file access**

**Features that work differently in Multimedia ToolBook 3.0**

- 

Multimedia ToolBook now requires the MTB30NET.EXE file for all file access. In previous versions of ToolBook, this file was required only if you were coordinating access to a book by multiple users on a network. Be sure to include the MTB30NET.EXE file any time you distribute an application.

[Shipping files with Runtime Multimedia ToolBook](#)



## Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 contains hundreds of new features, including a new interface, new and enhanced objects, and many improvements to OpenScript.

- Authoring environment
- Multimedia
- Objects
- OpenScript

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- **Authoring environment**

- [New interface tools](#)

- [Tools menu](#)

- [Enhanced text support](#)

- [Improved importing](#)

- [Printing improvements](#)

- [Enhanced color support](#)

- [Managing embedded objects as resources](#)

- [Optimizing for CD-ROM](#)

- [New tools for distributing applications](#)

- **Multimedia**

- **Objects**

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- **Multimedia**

- [Multimedia clips](#)

- [Stages](#)

- [OpenScript support for multimedia](#)

- [Media packager](#)

- [Clip media](#)

- [Digital Video Producer](#)

- **Objects**

- **OpenScript**

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- [Drag and drop](#)

- [Path animation](#)

- [Buttons](#)

- [Fields and record fields](#)

- [Groups](#)

- [Paint objects \(bitmaps\)](#)

- [Hotwords](#)

- [Shapes and lines](#)

- [Menus](#)

- [Viewers \(windows\)](#)

- [Combo boxes](#)

- [Stages](#)

- [OLE objects](#)

- **OpenScript**

- 

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[Improved Script editor](#)

[Improved Debugger](#)

[Auto-Script script library utility](#)

[Improved Command window](#)

[Improved OpenScript performance and efficiency](#)

[Improvements to variables](#)

[New operators](#)

[Improvements to messages](#)

[Notify handlers](#)

[New commands and functions \(overview\)](#)

[New commands](#)

[New functions](#)

[New messages](#)

[New properties](#)

[New DLL features and Windows messaging interface](#)

[New DLL functions](#)



- 

## New interface tools

### Features new in Multimedia ToolBook 3.0

- **Tool bar.** Execute commands directly by clicking buttons on Multimedia ToolBook's new tool bar.
- **Ruler shadows.** When you select an object, the object's dimensions display as shadows in the ruler so you can more precisely size and move it.
- **Status bar.** Display your own messages in the status bar. Turn the status bar on and off for any viewer in your application.
- **Right-click menus.** Click the right mouse button to display a context-sensitive menu and tool bar you can use to manipulate an object as well as view and edit its properties.
- **New Tools menu.** Choose from a wide range of custom tools that make authoring easier and more efficient, including a Properties Browser, a window to define startup preferences, and other timesaving options.
- **Command window history.** Recall previously executed commands in the Command window using the Command window history.
- **Recently used books on File menu.** Open books quickly by choosing from the four most recently used books listed in the File menu.
- **Duplicate menu item.** Choose Duplicate from the Edit menu or press Ctrl+D to duplicate the selected object.

[New Tools Menu](#)

[Command window](#)

[ToolBook User Manual](#), Chapter 2, "ToolBook orientation"

[ToolBook User Manual](#), Chapter 20, "Using the scripting tools"

•

## Tools menu

### Features new in Multimedia ToolBook 3.0

Adding MTB30.SBK to the `sysBooks` property adds a Tools menu at Author level that contains useful authoring tools, including utilities to:

- view and change an object's properties or any system variables.
- set startup preferences.
- find and replace text in all scripts in the book.
- help you align objects, add three-dimensional effects, and set layer order.
- import and export text to and from fields and record fields.
- create hyperlinks between pages of your book.
- draw [path animations](#).
- copy stages with prescribed controls into your book to add digital video without programming.

For details about the Tools menu, refer to the Menu commands in the Multimedia ToolBook online Help.

- 

## Improved importing

Features new in Multimedia ToolBook 3.0

- **Importing pages.** Import pages from other books in one step. Multimedia ToolBook automatically imports the associated resources and remaps the record field text.
- **Importing graphics.** Import a wider variety of graphics.

[Importing graphics](#)

ToolBook User Manual, Chapter 16, "Importing and exporting data"

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## Printing improvements

Features new in Multimedia ToolBook 3.0

- **Updated interface.** Use the updated printing user interface for easier access to printing.
- **WYSIWYG word wrapping.** Design your printed output more accurately with WYSIWYG (what you see is what you get) word wrapping, which makes text look the same on the screen as it does on the printed page.
- **Printing colors.** Control how well colors are rendered on black-and-white printers.
- **Page scaling.** Create more flexible printer output with improved page scaling.
- **Robust printing.** Enjoy consistent and reliable output with more robust printing support.

[Printing viewers](#)

[Printing colors on black-and-white printers](#)

[ToolBook User Manual, Chapter 15, "Printing from ToolBook"](#)

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## Enhanced color support

Features new in Multimedia ToolBook 3.0

- **Solid colors.** Display custom solid object colors by setting a book's `solidColorsEnabled` property to `true`.
- **RGB values.** Set colors using RGB values instead of, or in addition to, HLS values.
- **New constants.** Use the new color constants `gray` and `lightGray`.
- **Palette shift.** Eliminate palette shift by assigning a shared color palette to a book.
- **16- and 24-bit color support.** Take advantage of 16- and 24-bit display devices in your applications.
- **Graphics of all color depths.** Add 8-bit, 16-bit, or 24-bit graphics to your application. Multimedia ToolBook 3.0 automatically dithers the images to the color depth of the user's machine.
- **Windows colors.** Set objects to use the colors set in the Windows Control Panel with the new `useWindowsColors` property.



ToolBook User Manual, Chapter 3, "Drawing objects"

ToolBook User Manual, Chapter 23, "Variables, values, and text"

ToolBook User Manual, Appendix B, "Working with 256-color display devices"

- 

## Managing embedded objects as resources

Features new in Multimedia ToolBook 3.0

- **Centralized resources.** Maintain a centralized database of resources, including menu bars, icons, cursors, bitmaps, and color palettes, that you can use throughout your book.
- **Menu bars.** Create and modify menu bars without scripting using the new Menu Bar editor.
- **Icons and cursors.** Create and edit icons and cursors using the new Icon/Cursor editor.
- **Bitmaps and color palettes.** Create and edit bitmaps and color palettes, including those created with other Windows programs, using BitEdit or PalEdit.
- **Wave audio files.** Edit wave audio files (.WAV files) using WaveEdit.
- **Single-source changes.** Update every occurrence in a book of a bitmap, icon, color palette, or cursor with a single change. For example, if several graphic buttons share the same bitmap resource, Multimedia ToolBook automatically updates each button when you edit or replace the bitmap.
- **Clip art.** Get a head start on user interface design by importing predefined icons, cursors, and bitmaps from the library of clip art included with Multimedia ToolBook. 3.0.

ToolBook User Manual, Chapter 14, "Using Windows resources"

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## New tools for distributing applications

Features new in Multimedia ToolBook 3.0

- **.EXE files.** Save books as .EXE files that you can launch directly from the Program Manager without starting Multimedia ToolBook or Runtime Multimedia ToolBook first. (Multimedia ToolBook must still be available in your path, however.)
- **CD-ROM optimization.** Save your application in a format optimized for access on CD-ROM. Create a temporary or permanent cache file to speed access to CD-ROM-based applications.
- **Installation utility.** Package your applications with the new Asymetrix Setup Utility, which allows you to create installable components, assign icons to each file, and compress files for distribution on floppy disks or CD-ROM.

[Distributing Multimedia ToolBook applications](#)

[Searching for Multimedia ToolBook from .EXE files](#)

[ToolBook User Manual, Chapter 17, "Preparing applications for release"](#)

[Multimedia ToolBook User Manual and OpenScript Reference, Chapter 9, "Preparing for distribution"](#)

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## Drag and drop

Features new in Multimedia ToolBook 3.0

- **Drag objects.** Define drag-and-drop behavior for any object to create highly interactive and intuitive applications.
- **Drag-and-drop properties.** Specify drag-and-drop properties using dialog boxes or create conditional drag-and-drop behavior in OpenScript.
- **Drag and no-drop cursors.** Use any graphic resource as a drag cursor, including full-color bitmaps (a capability unique to Multimedia ToolBook).

ToolBook User Manual, Chapter 27, "Using special effects"

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## Buttons

Features new in Multimedia ToolBook 3.0

- **3D buttons.** Create three-dimensional radio buttons and check boxes for your application interface.
- **Graphical buttons.** Create custom checkboxes, radio buttons, and pushbuttons by adding graphics to your buttons.
- **Radio buttons.** Create radio button groups more easily with the new `autoRadioButtons` group property.
- **Disabled buttons.** Prevent users from using buttons by disabling the buttons with the new `enabled` property.
- **Mnemonic access characters.** Define custom keyboard interfaces in your application by assigning mnemonic access characters to your buttons, so that users can use Alt plus a keystroke to click the button.



Managing embedded objects as resources  
ToolBook User Manual, Chapter 5, "Adding buttons"

- 

## Fields and record fields

Features new in Multimedia ToolBook 3.0

- **Inline graphics.** Paste bitmaps and icon graphics into a field, or insert a graphic that you've imported into Multimedia ToolBook's resource system.
- **Borderless fields.** Create transparent, borderless fields in one step using the borderless field tool.
- **Label buttons.** Create labels next to fields or in group boxes to define mnemonic access characters for objects that don't have captions.
- **Superscripts and subscripts.** Add superscripts and subscripts to your field text (invaluable for displaying mathematical and scientific data).
- **Color text.** Add visual emphasis to your fields with color. Each character in a field can be a different color.
- **Inset and raised styles.** Create three-dimensional fields and record fields using new styles.
- **Rich-text format (RTF) support.** Paste formatted text from word processing programs into fields or import it directly from a DOS file. Reduce development of text-rich applications by eliminating time spent reformatting imported text. Move formatted text, including hotwords, from one field to another using the `richText` field property.

[Tools menu](#)

[Creating hotwords from RTF text](#)

[ToolBook User Manual](#), Chapter 6, "Adding text"

[ToolBook User Manual](#), Chapter 7, "Adding record fields"

- 

## Groups

Features new in Multimedia ToolBook 3.0

- **Group editor.** Select objects in a group individually so you can edit them without destroying the group. You can also add objects to groups by selecting an object in the group and then drawing the new object, which automatically becomes part of the group.
- **Add or delete objects.** Add or delete objects in existing groups.
- **Auto-radio buttons.** Define radio button behavior more easily with the new `autoRadioButtons` property.

ToolBook User Manual, Chapter 3, "Drawing objects"

- 

## Hotwords

### Features new in Multimedia ToolBook 3.0

- **Hotword styles.** Define hotwords in color, as dotted or as underlined (which matches the styles available in Windows Help). Define a single hotword style for an entire book for convenience, but override it for individual hotwords for flexibility. For details about new hotword styles, refer to the Multimedia ToolBook online Help.
- **Importing hotwords.** Define hotwords in your word processing program, then import them into your Multimedia ToolBook fields. This feature is very useful to anyone who is creating hypertext applications in Multimedia ToolBook.
- **Disabling hotwords.** Selectively disabled hotwords using the new `enabled` property. If this property is false, the hotwords script does not run when users click the hotword at Reader level.
- **Finer control.** Control hotwords more precisely with the new `text`, `textOffset`, and `bounds` hotword properties.
- **Hotword graphics.** Create hotword graphics by including graphics in your hotwords.

[Creating hotwords from RTF text](#)

[ToolBook User Manual](#), Chapter 9, "Adding hotwords"

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## Shapes and lines

Features new in Multimedia ToolBook 3.0

- **Reshape objects.** Reshape polygons and arcs more easily with an enhanced Reshape command that allows you to add and remove vertices.
- **Line ends.** Add arrowheads and other effects to lines with the new line ends palette.



ToolBook User Manual, Chapter 3, "Drawing objects"

- 

## Menus

### Features new in Multimedia ToolBook 3.0

- **Menu Bar editor.** Use the new Menu Bar editor to create and edit menu resources without programming. You can define multiple levels of cascading menus. Multimedia ToolBook 3.0 comes with a predefined Reader-level menu resource.

Use menu resources instead of modifying menus in the `enterBook` handler, as you did in Multimedia ToolBook 1.5.

- **menuItem selected message.** Write a handler for the new `menuItemSelected` message instead of writing individual handlers for each menu item. (Multimedia ToolBook still sends the menu command and alias messages if there is no `menuItemSelected` handler.)
- **New OpenScript commands.** Control menus more precisely with new OpenScript commands and functions that support menus, such as `menuEnabled`, `setMenuName`, `setMenuHelpText`, `removeSeparator`, and others.
- **Popup menus.** Display popup menus with the new `popupMenu()` function.

**Tip** You can use the tool bar to send many of the same commands that are defined in menus.

ToolBook User Manual, Chapter 13, "Creating and modifying menu bars"

- 

## Viewers (multiple windows)

Features new in Multimedia ToolBook 3.0

- **Multi-window applications.** Display pages and create multi-window applications, dialog boxes, palettes, tool and status bars, popup windows, nested child windows, and much more to display your information in a variety of ways.
- **Multiple concurrent windows.** Display multiple pages simultaneously.
- **Dialog boxes and palettes.** Create deluxe dialog boxes and palettes that make use of all of Multimedia ToolBook's color and graphics capabilities.
- **Popup windows.** Create popup viewers that disappear when you click the mouse.
- **Captions.** Add thin captions to create low-profile windows such as tool palettes.
- **Replace multiple instances.** Combine multiple Multimedia ToolBook instances in a single, powerful, easily-managed application.

ToolBook User Manual, Chapter 11, "Creating windows with viewers"

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## Combo boxes

Features new in Multimedia ToolBook 3.0

- **Drop-down list box.** Provide the choices of a list box in the space of a single-line field by creating combo box objects with drop-down lists.
- **Sort items.** Sort items in the drop-down list automatically.
- **Full-text search.** Index the text in combo boxes to help users locate the page on which the combo box appears.

ToolBook User Manual, Chapter 8, "Creating list boxes and combo boxes"

Multimedia ToolBook User Manual and OpenScript Reference, Chapter 8, "Adding full-text search"

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## OLE objects

Features new in Multimedia ToolBook 3.0

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- **Embed OLE 1 objects.** Embed or link any OLE 1.0 object into your Multimedia ToolBook application.
- **Embed data from other Windows programs.** Add graphs, drawings, and other objects to your Multimedia ToolBook pages by pasting them from OLE-compatible applications.



ToolBook User Manual, Chapter 12, "Using object linking and embedding"

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## Improved Script editor

Features new in Multimedia ToolBook 3.0

- **Multiple windows.** Edit multiple scripts simultaneously in multiple modeless Script editors.
- **Tool bar.** Use the Script editor tool bar as a shortcut for most commands.
- **Exchange text.** Import and export text files directly into and from the Script editor.
- **Block commenting.** Comment and uncomment blocks of code in one step.
- **Block indenting.** Promote and demote blocks in one step.
- **Parent script editing.** Edit the scripts of parent objects by choosing the name of the parent object from a menu.

ToolBook User Manual, Chapter 20, "Using the scripting tools"

- 

## Improved Debugger

Features new in Multimedia ToolBook 3.0

- **Edit variables.** View and edit variable values of any length.
- **Command window.** Inspect and change any property using the Command window while in the Debugger.

ToolBook User Manual, Chapter 20, "Using the scripting tools"

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## Auto-Script script library utility

Features new in Multimedia ToolBook 3.0

- **Learning tool.** Learn Multimedia ToolBook quickly by browsing through predefined handlers, inserting a handler into a script, and testing the results.
- **Copy scripts.** Insert predefined handlers from a script library using the Auto-Script feature. You can customize options in each handler you insert.
- **Edit existing scripts.** Add your favorite handlers to an Auto-Script library file.
- **Programmer productivity.** Share Auto-Script libraries among multiple programmers.

ToolBook User Manual, Chapter 20, "Using the scripting tools"

- 

## Improved Command window

Features new in Multimedia ToolBook 3.0

- **Command window history.** The Command window maintains a history of the most recent commands you executed. Use the PageUp and PageDown keys to review and recall the commands or execute any command by double-clicking it.
- **Support for Ctrl+arrow keys.** Jump from word to word using Ctrl+Left Arrow or Ctrl+Right Arrow.
- **Properties stored between sessions.** Command window position, size, and split bar height are written to MTB30.INI when you close the program. They're restored when you start Multimedia ToolBook again and display the Command window.

**Note:** You can no longer evaluate expressions directly in the Command window.



[Evaluating expressions in the Command window](#)

ToolBook User Manual, Chapter 20, "Using the scripting tools"

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## Improved OpenScript performance and efficiency

Features new in Multimedia ToolBook 3.0

- **Faster compiler.** Write scripts that are up to 10 times faster than scripts in Multimedia ToolBook 1.5 with the new optimizing OpenScript compiler. Looping and access to program variables are key areas where performance has been improved.
- **Larger scripts.** Write more complex programs that use larger variables. Each variable in OpenScript can contain 64K of data, and you can have up to 16MB of variable data (an increase from 32K in Multimedia ToolBook 1.5).
- **Optional typed variables.** Improve efficiency of your programs by using optional typed variables, including types such as `int`, `word`, `string`, `object`, and many others.

- 

## Improvements to variables

• Features new in Multimedia ToolBook 3.0

- **Optional typed variables.** Improve efficiency of your programs by using optional typed variables, including types such as `int`, `word`, `string`, `object`, and many others.
- **Larger variables.** Write more complex programs that use larger variables; each variable in OpenScript can contain 64K of data, and you can have up to 16MB of variable data -- an increase from 32K in Multimedia ToolBook 1.5.
- **New assignment operator.** Assign values to variables and properties more conveniently using the new equal assignment operator (`=`), which also makes your OpenScript handlers faster to type and easier to read.
- **Arrays.** Access structured data quickly and easily using arrays of up to 16 dimensions. Use fixed arrays for fast, efficient management of data and dynamic arrays to store variable data whose size changes dynamically. Each array element can contain up to 65,536 characters.

[Declaring arrays as fixed or dynamic](#)

[Passing arrays by reference](#)

[ToolBook User Manual, Chapter 23, "Variables, values, and text"](#)

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## New operators

Features new in Multimedia ToolBook 3.0

- **Assignment operator.** Assign values to variables and properties more easily using the new equal assignment operator (=), which also makes your OpenScript handlers simpler to read.
- **Embedded graphics.** Manipulate graphics embedded in text with the new `graphic` text operator.
- **Bitwise operators.** Manipulate individual bits in numbers using the new bitwise operators. This capability is important when you're working with DLLs and certain algorithms.
- **Variable names.** Use the at symbol (@) to distinguish variable names from OpenScript keywords or property names.
- **Variable as message.** Use parentheses with the `send` command to evaluate an expression as a message.

[Improvements to messages](#)

[Converting books from earlier versions](#)

[ToolBook User Manual, Chapter 22, "Statements, functions, and expressions"](#)

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## Improvements to messages

Features new in Multimedia ToolBook 3.0

- **Clicking mouse buttons.** Make buttons and other objects respond more like standard Windows controls with the new `buttonClick` message -- the message is only sent if the user releases the mouse button while the cursor is still over the object.
- **Linking and unlinking system books.** Write more reliable system books with the new `linkSysBook` and `unlinkSysBook` messages. These messages notify your system book when it is time to initialize or clean itself up, so you no longer need to rely on forwarded `enterSystem`, `enterBook`, or `enterPage` messages.
- **Entering and leaving applications.** Track when a book is opened and closed in the Main window with the `enterApplication` and `leaveApplication` messages. Because you can now display multiple books concurrently using viewers, you can use these messages in place of `enterBook` and `leaveBook` to perform application initialization and cleanup.
- **Pressing Alt+key combinations.** Write handlers for the new `keyMnemonic` message to define your own Alt+key combinations.
- **Sending variables as messages.** Send the contents of variables as messages using an enhanced `send` command. For example:

```
ask "Send what message?"
send (It)
```
- **Request notification of messages.** Write handlers that are notified when messages reach the current page or background. This allows you to create self-contained objects that maintain their customized behavior when they are copied.

[New OpenScript messages](#)

[Notify handlers](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

[ToolBook User Manual](#), Chapter 25, "Handling user events"



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## Notify handlers

Features new in Multimedia ToolBook 3.0

- **Self-contained objects.** Build intelligent, self-contained objects using the new notify handlers, which execute in response to messages that are sent to the object's page. For example, you can write a clock object that automatically updates the current time whenever the page receives an idle message, or you can write an animation object that starts playing when the page is entered. You can copy and paste these objects onto any page and they will work with no further scripting.
- **Libraries.** Use notify handlers to create libraries of intelligent objects that you and other Multimedia ToolBook authors can reuse.

ToolBook User Manual, Chapter 21, "Messages, objects, and properties"

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## New commands and functions (overview)

Features new in Multimedia ToolBook 3.0

- **Multimedia.** Control multimedia with commands that allow you to play, stop, pause, and rewind media easily.
- **Page transitions.** Add a variety of special effects to page navigation using the new `transition` command. Choose from `blinds`, `drip`, `push`, `slide`, `spiral`, and many others.
- **Number formats.** Format numbers as binary or hexadecimal with new options for the `format` command.
- **Importing books.** Import other books with the `import book` command.
- **Importing pages.** Import any single page or range of pages from any other book with the `import pages` command.
- **Copying objects.** Copy objects directly, without the Clipboard, using the `copyObject()` function.
- **Verify objects.** Test for the existence of an object with the `isObject()` function.
- **Verify formats.** Test whether a value matches a format using the `isType()` function.
- **Financial functions.** Create "money-smart" applications using a wide range of financial functions.
- **Converting coordinates.** Convert easily between page units and pixels using new coordinate conversion functions.
- **Popup menus.** Display popup menus using the `popupMenu()` function.

[Changed OpenScript commands, functions, and messages](#)

[New commands](#)

[New functions](#)

[New messages](#)

[New properties](#)

[ToolBook User Manual](#), Chapter 11, "Creating windows with viewers"

[ToolBook User Manual](#), Chapter 13, "Creating and modifying menu bars"

[Multimedia ToolBook User Manual and OpenScript Reference](#), Chapter 6, "Playing multimedia"

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## New commands

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### Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes new commands in the following categories. For more details about each command, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

[Books, pages, and backgrounds](#)

[Menus](#)

[Multimedia](#)

[Objects](#)

[Resources](#)

[Viewers](#)

[Other](#)

Multimedia ToolBook 3.0 online Help

[Changed OpenScript commands, functions, and messages](#)

[New DLL functions](#)

[New notify handlers](#)

[New OpenScript functions](#)

[New OpenScript messages](#)

[New OpenScript properties](#)

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## New functions

- 

### Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes new functions in the following categories. For more details about each function, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

[Coordinate conversion](#)

[Financial](#)

[Full-text search](#)

[Menus](#)

[Multimedia](#)

[Resources](#)

[Other](#)

Changed OpenScript commands, functions, and messages

Managing embedded objects as resources

New DLL functions

New OpenScript commands

New OpenScript messages

New OpenScript properties

Notify handlers



- ## New messages

- ### Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes new messages in the following categories. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

[Drag and drop](#)

[Enter and leave event](#)

[Menu events](#)

[Mouse and keyboard events](#)

[Multimedia](#)

[Notification events](#)

[Object linking and embedding \(OLE\)](#)

[System](#)

[Viewers](#)

Changed OpenScript commands, functions, and messages

Drag and drop

New DLL functions

New OpenScript commands

New OpenScript functions

New OpenScript properties

Notify handlers

OLE objects

Viewers (multiple windows)

## New properties

### Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new properties. For more details about each property, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

## Books, pages, and backgrounds

Property	Description
<code>buildCacheFile</code>	Specifies whether a CD-ROM-based application uses a cache file for speed.
<code>cacheFileType</code>	Specifies the size of the cache file for a CD-ROM-based application.
<code>CDMediaPath</code>	Specifies the directories on a CD-ROM in which Multimedia ToolBook searches for media files.
<code>ftsAdditionalText</code>	Specifies additional text for a page (beyond that in fields, record fields, buttons, and combo boxes) to be included in a full-text search index.
<code>ftsContext</code>	Specifies the context of a page for a full-text search index.
<code>ftsIgnore</code>	Specifies whether the page is to be excluded from a full-text search index.
<code>ftsIndexName</code>	Specifies the name of an index settings file used when creating a full-text search index.
<code>ftsKeywords</code>	Specifies the keywords with which users can locate the page during a full-text search.
<code>ftsSetFile</code>	Specifies the path for the index settings file used when creating a full-text search index.
<code>ftsTitle</code>	Specifies a page's title for a full-text search index.
<code>ftsTitleOverride</code>	Specifies whether the page's title for a full-text search index overrides the default title specified for the book as a whole.
<code>HDMediaPath</code>	Specifies the directories on a hard disk in which Multimedia ToolBook searches for media files.
<code>hotwordColor</code>	Specifies the default color for hotwords.
<code>hotwordStyle</code>	Specifies the default style ( <i>frame</i> , <i>color</i> , or <i>none</i> ) in which Multimedia ToolBook displays hotwords.
<code>keepMenubar</code>	Specifies whether the current menu bar should be retained when opening a new book.
<code>notifyObjects</code>	Lists objects on a page that have requested notification of messages reaching the page.
<code>percentFreeSpace</code>	Specifies the approximate percentage of free space available on a page or background.
<code>saveOnClose</code>	Specifies how changes are saved when the book is closed.
<code>shownBy</code>	Lists the viewers currently showing a specified page.
<code>skipNavigation</code>	Prevents Multimedia ToolBook from displaying the page at Reader level when the user navigates to it using the Page menu or using a script with implicit navigation commands ( <i>send next</i> , <i>send previous</i> , and so on).
<code>solidColorsEnabled</code>	Specifies whether a book uses solid colors or dithered colors.
<code>windows</code>	Lists the viewers in a book.

## Buttons

Property	Description
<code>checkedGraphic</code>	Specifies the graphic resource (bitmap, cursor, or icon) that is displayed when a checkbox-style button is checked.
<code>disabledGraphic</code>	Specifies the graphic resource that is displayed when a button is disabled.
<code>ftsExclude</code>	Specifies whether the text of the button should be excluded from a full-text search index.
<code>ftsSection</code>	Specifies the section in a full-text index to which the button belongs.
<code>invertGraphic</code>	Specifies the graphic resource that is displayed when an enabled button is clicked and held down.
<code>normalGraphic</code>	Specifies the graphic resource that is displayed when a button is enabled and not being held down.

## Lines

Property	Description
<code>lineEndSize</code>	Specifies the size of a line's arrowhead and other ends.
<code>lineEndStyle</code>	Specifies the style of a line's ends (filled or open arrowheads and tails).

## Fields and record fields

Property	Description
<code>richText</code>	Specifies the RTF version of text, which includes information about character and paragraph formatting.
<code>ftsExclude</code>	Specifies whether the text of the field or record field should be excluded from a full-text search index.
<code>ftsSection</code>	Specifies the section in a full-text index to which the field or record field belongs.

## Hotwords

Property	Description
<code>enabled</code>	Specifies whether the hotword's script runs when a user clicks the hotword.
<code>ftsTag</code>	Specifies the name of the hotword's tag for a full-text search index.
<code>ftsTagValue</code>	Specifies an override value for the hotword in a full-text search index.
<code>hotwordStyle</code>	Specifies how Multimedia ToolBook should display hotwords ( <i>frame, color, dotted, underlined, or none</i> ).

## Groups

Property	Description
<code>autoRadioButtons</code>	Specifies whether the radio buttons in a group operate as mutually exclusive buttons.

## Viewers

Property	Description
<code>authorStatusBar</code>	Specifies whether a viewer will display a status bar by default at Author level.
<code>imageBuffers</code>	Specifies the number of buffers (0, 1, or 2) available to store

`readerStatusBar`

pages and backgrounds for the current viewer.

Specifies whether a viewer will display a status bar by default at Author level.

## Multiple objects

Property	Description
<code>defaultAllowDrag</code>	Specifies whether an object is dragged by default when a user clicks it.
<code>defaultAllowDrop</code>	Specifies whether an object accepts a drop by default.
<code>dragImage</code>	Specifies the graphic resource (bitmap, cursor, or icon) that is displayed when the object is dragged.
<code>enabled</code>	Specifies whether the object can respond to mouse clicks and receive the focus.
<code>noDropImage</code>	Specifies the graphic resource (bitmap, cursor, or icon) that is displayed when the object is dragged over an object that does not accept a drop.
<code>notifyAfterMessages</code>	Lists the messages for which the object has requested notification with <code>notifyAfter</code> handlers.
<code>notifyBeforeMessages</code>	Lists the messages for which the object has requested notification with <code>notifyBefore</code> handlers.
<code>rgbFill</code>	Specifies the object's fill color using RGB values (instead of HLS values).
<code>rgbStroke</code>	Specifies the object's stroke color using RGB values (instead of HLS values).

## Multimedia

Property	Description
<code>sysMediaBreakKey</code>	Specifies a key that can be pressed to stop media played with the <code>wait</code> parameter.
<code>sysMediaSuspend</code>	Specifies whether Multimedia ToolBook displays an Execution Suspended error if a noncritical error occurs while a media command is playing.
<code>sysMMEngineVersion</code>	Specifies the version of the Multimedia ToolBook engine used to play media.
<code>sysOpenMedia</code>	Specifies a list of all currently open media.
<code>sysSupportedMedia</code>	Specifies the types of media devices supported on the current computer.

## System

Property	Description
<code>caretLocation</code>	Specifies the location of the insertion point within a field or record field.
<code>startup3DInterface</code>	Specifies whether Multimedia ToolBook displays dialog boxes using a three-dimensional effect by default.
<code>sys3DInterface</code>	Specifies whether Multimedia ToolBook currently displays dialog boxes using a three-dimensional effect.
<code>sysMediaSuspend</code>	Specifies whether Multimedia ToolBook displays an Execution Suspended error if a noncritical error occurs while a media command is playing.
<code>sysOptimizedSave</code>	Specifies whether a book is optimized for CD-ROM access when it is saved at Author level.
<code>sysToolBookDirectory</code>	Returns the path from which Multimedia ToolBook was

started.

Changed OpenScript commands, functions, and messages

New DLL functions

New OpenScript commands

New OpenScript functions

New OpenScript messages

Notify handlers

- 

## New DLL features and Windows messaging interface

Features new in Multimedia ToolBook 3.0

- **New functions.** Extend your application with new functions in the DOS (formerly File), Windows, and Dialog DLLs.
- **Database functions.** Call the Paradox database engine to create and access Paradox database tables and indexes using the new Paradox DLL.
- **Resource handles.** Manipulate resources with Windows API functions by getting a handle for the resource with the `GDIHandle()` function.
- **Windows messages.** Extend your ability to intercept Windows messages with an improved `translateWindowMessage` control structure, which gives you complete control over how and when a message is sent to a window. You can intercept any Windows message and prevent it from reaching its window, and you can add your own custom processing for any Windows message. To make it easier for you to find the right Windows message, Multimedia ToolBook includes an online Help application called WINCONST.HLP that lists Windows constants.

New DLL functions  
New executable and DLL file names



## New DLL functions

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new DLL functions. For more details about each function, see the [OpenScript Reference Manual](#) or the online Help.

### TB30DLG.DLL

```
addComboBoxItem()
addListBoxItem()
chooseColorDlg()
chooseDirectoryDlg()
chooseFontDlg()
colorPaletteDlg()
controlIDToName()
controlNameToHwnd()
controlNameToID()
deleteComboBoxItem()
deleteListBoxItem()
deletenComboBoxItem()
deletenListBoxItem()
dialogCallback()
enableControl()
endTBKDialog()
enterWaitState()
getControlText()
getCustomColors()
getDialogFocus()
getListBoxItems()
getListBoxSelection()
getnListBoxSelection()
getOpenFileDlgFilterIndex()
getSaveAsDlgFilterIndex()
isButtonChecked()
isControlEnabled()
leaveWaitState()
openFileDlg()
saveAsDlg()
setBitmapData()
setButtonCheck()
setComboBoxItems()
setControlText()
setCustomColors()
setDialogFocus()
setGroupedButtonCheck()
setIconData()
setListBoxItems()
setListBoxSelection()
setnListBoxSelection()
```

### TB30DOS.DLL

```
getCDDriveList()
getDirectoryOnlyList()
getDriveKind()
getFileOnlyList()
getVolumeName()
isCDDrive()
setFileDate()
setSystemDate()
```

```
setSystemTime()
```

## **TB30WIN.DLL**

```
getFileVersion()  
getIniVar()  
getModuleList()  
getModulePath()  
popText()  
popTextGetBounds()  
sendKeys()  
setIniVar()
```

## **MTB30MM.DLL**

```
HMSfromMillisec(  
)  
millisecFromHMS(  
)  
millisecFromMSF(  
)  
millisecFromSMPT  
E()  
MSFfromMillisec(  
)  
SMPTEfromMillise  
c()  
tbkMMTranslate()
```

[Changed OpenScript commands, functions, and messages](#)

[New DLL functions and Windows messaging interface](#)

[New OpenScript commands](#)

[New OpenScript functions](#)

[New OpenScript messages](#)

[New OpenScript properties](#)

[Notify handlers](#)

- 

## **Paint objects (bitmaps)**

Features new in Multimedia ToolBook 3.0

- **Transparent bitmaps.** Create paint objects with "see-through" sections that allow you to see the objects underneath the bitmap. For details, refer to the Multimedia ToolBook online Help.

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## Stages

### Features new in Multimedia ToolBook 3.0

To display visual media such as digital video files, you can create a stage, which is an object that defines a position and size for the clip. Multimedia stages offer these advantages:

- **Position and size visual media.** Draw a stage to set the location where visual media such as digital videos will play and to adjust the size of the play window.
- **Device independence.** Eliminate device-dependency problems because the stage is automatically resized if you change video devices.
- **Prescribed objects.** Use the Media Widgets tool to drag and drop prescribed stages into your application. These stages contain controls to play, stop, and pause visual media.
- **Borders.** Add beveled borders to the stage for visual appeal.
- **Transitions.** Add transition effects (wipes, fades, slides) to the stage that play at the beginning or end of a clip.



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## Enhanced text support

Features new in Multimedia ToolBook 3.0

- **Full-text search.** Create an index of all the words in your application and search it to quickly locate any page in your application.
- **Check spelling.** Polish your application by checking the spelling of words in any object that contains text.
- **Embed TrueType fonts.** Include with your application the fonts you used to create it, guaranteeing that the application will look the same on every system.

Other enhancements to text in Multimedia ToolBook are listed in [Fields and record fields](#).

Multimedia ToolBook User Manual and OpenScript Reference, Chapter 7, "Embedding TrueType fonts"  
Multimedia ToolBook User Manual and OpenScript Reference, Chapter 8, "Adding full-text search"  
Multimedia ToolBook User Manual and OpenScript Reference, Chapter 9, "Preparing for distribution"

- 

## Optimizing for CD-ROM

Features new in Multimedia ToolBook 3.0

- **Optimized format.** Store your application in a format optimized for access on a CD-ROM.
- **Cache file.** Create a cache file containing frequently-used information to speed access to CD-ROM-based applications.





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## Path animation

Features new in Multimedia ToolBook 3.0

- **Create animations without programming.** Draw animation paths for any object by pointing and clicking with the mouse. Set the duration and speed of the animation using a dialog box.
- **Create cel animations.** Create animations that show one view of an object after another (such as a series of bitmaps of a globe to suggest the spinning of the earth) by grouping objects and setting options in a dialog box. For details about path animation, refer to the Path Animation online Help system provided separately with Multimedia ToolBook.

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## Multimedia clips

### Features new in Multimedia ToolBook 3.0

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To access multimedia in Multimedia ToolBook you create clips, which are references to a segment of a media file (such as an .AVI file) or a media device (such as a CD in a CD-ROM player). A clip includes these attributes:

- A name that you assign
- A start point
- An end point

Depending on the type of clip, it might also include additional information. For example, a clip referencing a digital audio file might include information about how loud the clip should play.

Creating clips allows you to:

- keep information about the multimedia elements of your application in a central location to simplify application development and maintenance.
- create search paths for the clips to make your application path-independent.
- edit attributes of the media clip (such as changing its start and end points) without changing scripts that reference the clip.
- incorporate still images (.BMP, .DIB, .WMF, .GIF, PICT, and Kodak Photo CD) into your application using the same techniques used for video types.

You can create clips for any MCI-compatible media type, including these:

<b>Type</b>	<b>Example</b>
Video	Video For Windows, QuickTime, videodisc, video overlay, and VISCA-compatible VCRs
Audio	Wave audio, Musical Instrument Digital Interface (MIDI), CD audio
Animation	Macromedia Director movies, Autodesk® .FLI and .FLC files

[Creating clips from Kodak PhotoCD images](#)

[Multimedia ToolBook User Manual and OpenScript Reference](#), Chapter 4, "Accessing multimedia using clips"

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## **OpenScript support for multimedia**

Features new in Multimedia ToolBook 3.0

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Using new OpenScript commands, you can

- play, pause, stop, and rewind multimedia.
- get and set properties of clips (references to media files) such as their start and end points, volume, and display size.
- create new clips or import multimedia elements.
- adjust the volume of MIDI, wave audio, and CD audio.

Multimedia ToolBook also includes commands to execute MCI commands directly to take advantage of device-specific features.

[New OpenScript commands \(multimedia\)](#)

[New OpenScript functions \(multimedia\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript properties](#)

[Stages](#)

[Multimedia clips](#)

[Multimedia ToolBook User Manual and OpenScript Reference, Chapter 6, "Playing multimedia"](#)

## New functions (multimedia)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions for multimedia. For more details about each function, see the Multimedia ToolBook online Help.

### Multimedia functions

Command	Description
<code>callMCI()</code>	Executes an MCI command.
<code>imageCommand()</code>	Displays a graphic (bitmap or vector graphic).
<code>importPhoto()</code>	Copies an image from a Kodak Photo CD as a bitmap.
<code>mixerCommand()</code>	Controls sound level for different devices.
<code>timerCapability()</code>	Requests information about the timer device.
<code>timerStart()</code>	Accesses the Windows timer device.
<code>timerstop()</code>	Stops a timer started with <code>timerStart()</code> .

[New functions \(coordinate conversion\)](#)

[New functions \(financial\)](#)

[New functions \(full-text search\)](#)

[New functions \(menus\)](#)

[New functions \(resources\)](#)

[New functions \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

[Multimedia ToolBook User Manual and OpenScript Reference](#), Chapter 6, "Playing multimedia"

## New functions (menus)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions for menus. For more details about each function, see the [OpenScript Reference Manual](#) or the online Help.

### Menu-related functions

Function	Description
<code>menuEnabled()</code>	Verifies whether a menu is active.
<code>menuItemChecked()</code>	Verifies whether a menu item has a checkmark next to it.
<code>menuItemEnabled()</code>	Verifies whether a menu item is active.
<code>popupMenu()</code>	Displays a popup (tear-off) menu.
<code>setMenuHelpText()</code>	Sets the status bar text that appears when this menu is highlighted.
<code>setMenuItemHelpText()</code>	Sets the status bar text that appears when this menu item is highlighted.
<code>setMenuItemName()</code>	Changes the name of a menu item.
<code>setMenuName()</code>	Changes the name of a menu.

[New functions \(coordinate conversion\)](#)

[New functions \(financial\)](#)

[New functions \(full-text search\)](#)

[New functions \(multimedia\)](#)

[New functions \(resources\)](#)

[New functions \(other\)](#)

[ToolBook User Manual](#), Chapter 13, "Creating and modifying menu bars"

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"



## New functions (coordinate conversion)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions for converting between pixels and page units. For more details about each function, see the [OpenScript Reference Manual](#) or the online Help.

### Coordinate conversion functions

Function	Description
<code>clientToPageUnits()</code>	Converts a location in a client window in pixels to page units.
<code>clientToScreen()</code>	Converts a location in a client window in pixels into an absolute location in the screen.
<code>frameToPageUnits()</code>	Converts a location within a window's frame in pixels into page units.
<code>frameToScreen()</code>	Converts a location within a window's frame in pixels into an absolute screen location.
<code>pageUnitsToClient()</code>	Converts a location in page units into a location in a client window in pixels.
<code>pageUnitsToFrame()</code>	Converts a location in page units into a location in a frame window in pixels.
<code>pageUnitsToScreen()</code>	Converts a location in page units into an absolute screen location in pixels.
<code>screenToClient()</code>	Converts an absolute location on the screen into a location in a client window in pixels.
<code>screenToFrame()</code>	Converts an absolute location on the screen into a location in a frame window in pixels.
<code>screenToPageUnits()</code>	Converts an absolute location on the screen into page units.

[New functions \(financial\)](#)

[New functions \(full-text search\)](#)

[New functions \(menus\)](#)

[New functions \(multimedia\)](#)

[New functions \(resources\)](#)

[New functions \(other\)](#)

[ToolBook User Manual](#), Chapter 11, "Creating windows with viewers"

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New functions (financial)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions for performing financial calculations. For more details about each function, see the [OpenScript Reference Manual](#) or the online Help.

### Financial functions

Function	Description
<code>annuityFactor()</code>	Returns a factor of the present value of an annuity.
<code>compoundFactor()</code>	Returns the future value of an interest-bearing account.
<code>ddb()</code>	Returns depreciation of an asset for a specific period.
<code>fv()</code>	Returns the future value of an annuity.
<code>ipmt()</code>	Returns the amount of interest to be paid on an investment.
<code>irr()</code>	Returns the interest rate for a series of cash flow amounts.
<code>nper()</code>	Returns the number of periods required for an investment.
<code>npv()</code>	Returns the present value of an investment based on cash flow amounts.
<code>pmt()</code>	Returns the periodic payment for an annuity.
<code>ppmt()</code>	Returns the payment on principal for an investment.
<code>pv()</code>	Returns the present value of an investment.
<code>rate()</code>	Returns the interest rate per period for an investment.
<code>syd()</code>	Returns the depreciation of an asset.

[New functions \(coordinate conversion\)](#)

[New functions \(full-text search\)](#)

[New functions \(menus\)](#)

[New functions \(multimedia\)](#)

[New functions \(resources\)](#)

[New functions \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New functions (resources)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions for using resources such as bitmaps, cursors, palettes, and menu bars. For more details about each function, see the [OpenScript Reference Manual](#) or the online Help.

### Resource functions

Function	Description
<code>chooseResource()</code>	Displays the Choose Resource dialog box from which you can select a bitmap, icon, cursor, color palette, or menu bar resource.
<code>GDIHandle()</code>	Returns the handle of a resource in a format that can be passed to Windows.
<code>resourceCount()</code>	Returns the number of times a resource is referenced in the book.
<code>resourceHandle()</code>	Returns the handle of a resource in a format that can be passed to Multimedia ToolBook.
<code>resourceList()</code>	Returns a list of the resource references for a specified resource type.

[New functions \(coordinate conversion\)](#)

[New functions \(financial\)](#)

[New functions \(full-text search\)](#)

[New functions \(menus\)](#)

[New functions \(multimedia\)](#)

[New functions \(other\)](#)

[ToolBook User Manual](#), Chapter 14, "Using resources"

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New functions (full-text search)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions for creating an index and searching it. For more details about each function, see the [Multimedia ToolBook User Manual](#) and [OpenScript Reference Manual](#) or the online Help.

### Full-text search functions (creating an index)

Function	Description
<code>ftsAddContext()</code>	Adds a new context to the index.
<code>ftsAddPage()</code>	Adds a page to the index.
<code>ftsAddSectionsToPage()</code>	Assigns one or more sections to a page.
<code>ftsAddTextToSection()</code>	Adds the text of a specified object to a section.
<code>ftsBuildIndex()</code>	Builds the index based on an index settings file.
<code>ftsInitIndex()</code>	Initializes an index in preparation of adding information into it.
<code>ftsRemoveIndex()</code>	Deletes an index.

### Full-text search functions (searching)

Function	Description
<code>ftsAllContextTitles()</code>	Returns a list of all page contexts.
<code>ftsAllMatchingRefs()</code>	Returns all page titles from the most recent query.
<code>ftsAllMatchingTitles()</code>	Returns all page references from the most recent query.
<code>ftsCloseIndex()</code>	Closes an open index.
<code>ftsContextCount()</code>	Returns the number of contexts.
<code>ftsContextTitle()</code>	Returns the text of a context based on a context number.
<code>ftsGetErrorNotify()</code>	Returns error notification status.
<code>ftsGetErrorNumber()</code>	Returns number of most recent error.
<code>ftsGetErrorString()</code>	Returns text of most recent error.
<code>ftsGetOffsets()</code>	Returns a list of coordinates identifying the search term in a block of text.
<code>ftsMatchRef()</code>	Returns one page reference from the most recent query.
<code>ftsMatchTitle()</code>	Returns one page title from the most recent query.
<code>ftsNamedSections()</code>	Returns a list of all named sections.
<code>ftsOpenIndex()</code>	Makes an index available for searching.
<code>ftsQuery()</code>	Searches the index.
<code>ftsReQuery()</code>	Searches the index, limiting the search to the pages found in a previous query.
<code>ftsSetContextScope()</code>	Narrows a search to a specific page context.
<code>ftsSetErrorNotify()</code>	Specifies whether errors are displayed.
<code>ftsTagEntries()</code>	Returns a list of all phrases stored in a hotword tag.
<code>ftsTags()</code>	Returns a list of all hotword tags.

[New functions \(coordinate conversion\)](#)

[New functions \(financial\)](#)

[New functions \(menus\)](#)

[New functions \(multimedia\)](#)

[New functions \(resources\)](#)

[New functions \(other\)](#)

[ToolBook User Manual, Chapter 22, "Statements, functions, and expressions"](#)

[Multimedia ToolBook User Manual and OpenScript Reference Manual, Chapter 8, "Adding full-text search"](#)

## New functions (other)

### Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript functions. For more details about each function, see the [OpenScript Reference Manual](#) or the online Help.

### Other functions

Function	Description
<code>clipboardFormats()</code>	Returns a list of formats currently on the Clipboard.
<code>dimensions()</code>	Returns the dimensions of the specified array.
<code>flushMessageQueue()</code>	Clears pending keystrokes, mouse clicks, or messages.
<code>isObject()</code>	Determines if the specified object exists.
<code>getObjectList()</code>	Returns a list of objects contained within the specified object, for example, all objects in a background.
<code>getHandlerList()</code>	Returns a list of handlers of a specified type from any object.
<code>getHandlerScript()</code>	Returns the full script (including handler, parameters, and end statement) of the specified handler from the script of the referenced object.
<code>isType()</code>	Determines if the specified variable matches a particular data type.
<code>playSound()</code>	Plays a .WAV file.
<code>setHandlerScript()</code>	Places the handler script into the script of the referenced object.
<code>windowFromPoint()</code>	Returns a reference to the topmost viewer (window) displayed at the specified location.
<code>windowRefFromHandle()</code>	Returns a reference to the viewer (window) identified by the specified handle.



[New functions \(coordinate conversion\)](#)

[New functions \(financial\)](#)

[New functions \(full-text search\)](#)

[New functions \(menus\)](#)

[New functions \(multimedia\)](#)

[New functions \(resources\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

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## **Media packager**

**Features new in Multimedia ToolBook 3.0**

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To help you manage clips efficiently, Multimedia ToolBook includes a Media Packager utility, which

- removes explicit path references from clips.
- enables you to set up media search paths that Multimedia ToolBook uses to locate a clip.
- enables you to move or copy media source files.

For details about the Media Packager utility, refer to the Multimedia ToolBook 3.0 online Help.

[Distributing Multimedia ToolBook applications](#)

[Multimedia ToolBook User Manual and OpenScript Reference](#), Chapter 9, "Preparing for distribution"

## New messages (multimedia)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

### Multimedia messages

Message	Description
<code>imageNotify</code>	Sent to the specified object after an <code>imageCommand()</code> function executes.
<code>MCINotify</code>	Sent to the specified object after a <code>callMCI()</code> function executes.
<code>MCISignal</code>	Sent to the specified object by the MCI signal command.
<code>mmNotify</code>	Sent to the specified object after a media command such as <code>mmPlay</code> or <code>mmStop</code> executes.
<code>timerNotify</code>	Sent to the specified object after a <code>timerStart()</code> function executes.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

[Multimedia ToolBook User Manual and OpenScript Reference](#), Chapter 6, "Playing multimedia"

## New messages (menu events)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Menu event messages

Message	Description
<code>align&lt;type&gt;</code>	Aligns selected objects.
<code>color</code>	Toggles display of the Color Tray.
<code>find</code>	Displays the Find dialog box.
<code>graphic</code>	If the focus is in a field and a character is selected, displays the Graphic dialog box, from which the user can choose a graphic to insert into text.
<code>insertGraphic</code>	Inserts a graphic resource (bitmap, icon) into a field.
<code>line</code>	Displays the line palette.
<code>lineEnds</code>	Displays the line ends palette.
<code>normalScript</code>	Removes superscripting or subscripting from the selected text.
<code>pasteSpecial</code>	Displays the Paste Special dialog box, from which the user can choose the format for pasting an object from the Clipboard (including creating an OLE object).
<code>pattern</code>	Displays the pattern palette.
<code>polygon</code>	Displays the polygon palette.
<code>printSetup</code>	Displays the Print Setup dialog box, from which the user can choose the current printer. See also <a href="#">Obsolete OpenScript terms</a> .
<code>readerRightClick</code>	Toggles the <code>sysReaderRightClick</code> property, which determines whether the right-click menus appear at Reader level.
<code>regular</code>	Changes a font style to <code>regular</code> (no italics or bold).
<code>replace</code>	Displays the Replace dialog box to allow the user to specify replacement text when searching for text.
<code>resources</code>	Displays the Resource Manager dialog box, from which the user can import, edit, or remove resources. See also <a href="#">Managing embedded objects as resources</a> .
<code>saveAsExe</code>	Displays the Save As .EXE dialog box, from which the user can specify the name of the .EXE file to create. See also <a href="#">New tools for distributing applications</a> .
<code>sendMail</code>	Displays the Send Note dialog box, from which the user can send an electronic mail message. See also <a href="#">Sending electronic mail from Multimedia ToolBook</a> .
<code>statusBar</code>	Toggles the display of the status bar.
<code>subscript</code>	Formats the selected text as subscripted.
<code>superscript</code>	Formats the selected text as superscripted.
<code>tool</code>	Toggles the display of the tool palette.
<code>toolBar</code>	Toggles the display of the tool bar.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 13, "Creating and modifying menu bars"

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

## New messages (enter and leave events)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Enter event and leave event messages

Message	Description
enterApplication	Sent when a book opens in Multimedia ToolBook's Main window.
enterComboBox	Sent when a combo box receives the focus. See also <a href="#">Combo boxes</a>
enterDrop	Sent when the cursor enters the bounds of an object during a drag-and-drop operation.
enterDropDown	Sent when a user clicks the combo box pushbutton to display the drop-down list.
enterMenu	Sent just before a menu is shown.
enterWindow	Sent when a viewer gets the focus.
leaveApplication	Sent when the book in Multimedia ToolBook's Main window is closed.
leaveComboBox	Sent when a combo box loses the focus.
leaveDrop	Sent when the cursor leaves the bounds of an object during a drag-and-drop operation.
leaveDropDown	Sent when a combo box's drop-down list box closes.
leaveWindow	Sent when the target window changes.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"



## New messages (mouse and keyboard)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

### Mouse and keyboard event messages

Message	Description
<code>buttonClick</code>	Sent when the user presses and releases the mouse button while remaining over one object.
<code>keyMnemonic</code>	Sent when the user presses an Alt+key combination not already defined as a button or menu mnemonic access key.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

[ToolBook User Manual](#), Chapter 25, "Handling user events"

## New messages (system)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Standard messages

Message	Description
autoScript	Displays the Auto-Script dialog box, from which the user can insert a prewritten script.
convertPicture	Converts the currently selected picture object to a paint object.
customEdit	Sent when the user clicks the Custom Edit button in an object's right-click menu. If the current system books include MTB30.SBK, this message displays the Property Browser.
debugScript	Displays the Debugger.
editScript	Displays the Script editor.
pageSize	Displays the Page Size dialog box, from which the user can choose a new size for the current book or background.
showGrid	Toggles the visibility of the grid.
sizeToViewer	Contracts or expands the current background to the size of the viewer in which it is displayed.
snapGrid	Toggles whether objects snap to the grid.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

## New messages (notification)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Notification messages

Message	Description
<code>linkSysBook</code>	Sent when a book is added to the <code>sysBooks</code> property.
<code>menuItemSelected</code>	Sent when a menu item is selected.
<code>pageScrolled</code>	Sent when the page scroll of a viewer changes to indicate how far a page has been scrolled.
<code>selectChange</code>	Sent when the user selects an item from a combo box's drop-down list box.
<code>selectionChanged</code>	Sent when the object selection changes at Author level.
<code>shown</code>	Sent when a viewer is shown.
<code>sized</code>	Sent when a viewer is sized.
<code>unlinkSysBook</code>	Sent when a book is removed from the <code>sysBooks</code> property.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

## New messages (drag and drop)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Drag-and-drop messages

Message	Description
<code>allowDrag</code>	Sent to query whether the object can be dragged.
<code>allowDrop</code>	Sent to query whether the object will allow another object to be dropped on it.
<code>beginDrag</code>	Sent to the dragged object when a drag-and-drop operation begins.
<code>endDrag</code>	Sent to the dragged object when it is dropped.
<code>enterDrop</code>	Sent to an object when the drag cursor enters its bounds.
<code>leaveDrop</code>	Sent to an object when the drag cursor leaves its bounds.
<code>objectDropped</code>	Sent to the destination object when a dragged object is dropped on it.
<code>stillOverDrop</code>	Sent continuously to an object while the drag cursor is above it.

[New OpenScript messages](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

[ToolBook User Manual](#), Chapter 27, "Using special effects"

## New messages (object linking and embedding)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### OLE messages

Message	Description
<code>insertOLEObject</code>	Displays the Insert OLE Object dialog box, which lists the types of OLE servers available.
<code>oleAction</code>	Executes the specified action for the selected OLE object.
<code>oleLinks</code>	Displays the OLE Links dialog box, which allows users to maintain links for OLE objects.
<code>pasteSpecial</code>	Displays the Paste Special dialog box, from which the user can create an OLE object by pasting it from the Clipboard.



[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(system\)](#)

[New OpenScript messages \(viewers\)](#)

[ToolBook User Manual](#), Chapter 12, "Using object linking and embedding"

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

## New messages (viewers)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript messages. For more details about each message, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Viewer messages

Message	Description
closeWindow	Sent to a viewer when it is closed.
enterMenu	Sent to a viewer when it is displayed.
enterWindow	Sent to a viewer when it is activated.
hidden	Sent to a viewer when it is hidden.
leaveWindow	Sent to a viewer when it loses the focus.
menuItemSelected	Sent to a viewer when the user chooses a menu item.
moved	Sent to a viewer when it is repositioned.
newViewer	Displays the New Viewer dialog box, from which the user can create a new viewer.
openWindow	Sent to a viewer when it is opened.
shown	Sent to a viewer when it is shown.
sized	Sent to a viewer when it is resized.
viewers	Displays the Viewers dialog box, from which users can choose a viewer to edit or create a new one.

[New OpenScript messages](#)

[New OpenScript messages \(drag and drop\)](#)

[New OpenScript messages \(enter and leave events\)](#)

[New OpenScript messages \(menu events\)](#)

[New OpenScript messages \(mouse and keyboard\)](#)

[New OpenScript messages \(multimedia\)](#)

[New OpenScript messages \(notification\)](#)

[New OpenScript messages \(object linking and embedding\)](#)

[New OpenScript messages \(system\)](#)

[ToolBook User Manual](#), Chapter 11, "Creating windows with viewers"

[ToolBook User Manual](#), Chapter 21, "Messages, objects, and properties"

## New commands (multimedia)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [Multimedia ToolBook User Manual and OpenScript Reference](#) or the online Help.

### Multimedia commands

Command	Description
<code>installFontResource</code>	Copies a TrueType font from the book to the current computer.
<code>mmClose</code>	Unloads a media clip loaded previously.
<code>mmCue</code>	Moves the start point of a clip.
<code>mmHide</code>	Hides the current frame of a visual clip.
<code>mmOpen</code>	Loads a clip into memory and readies it for playing.
<code>mmPause</code>	Temporarily stops a clip from playing.
<code>mmPlay</code>	Begins playing a clip.
<code>mmRewind</code>	Returns to the start point of a clip.
<code>mmSeek</code>	Moves to a particular point in a clip.
<code>mmShow</code>	Shows one frame from a visual clip.
<code>mmStop</code>	Stops a clip from playing.
<code>mmYield</code>	Yields processing time so that multimedia drivers can refresh buffers and process messages (this command is documented in online Help only).
<code>new clip</code>	Creates a new clip from a media file or media device.

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(books, pages, backgrounds\)](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(objects\)](#)

[New OpenScript commands \(resources\)](#)

[New OpenScript commands \(viewers\)](#)

[New OpenScript commands \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New commands (menus)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [OpenScript Reference Manual](#) or the online Help.

### Menu commands

Command	Description
<code>disable menu</code>	Deactivates an entire menu.
<code>disable menuItem</code>	Deactivates a single menu item.
<code>enable menu</code>	Activates a menu previously disabled with <code>disable menu</code> .
<code>enable menuItem</code>	Activates a menu item previously disabled with <code>disable menuItem</code> .
<code>remove separator</code>	Removes the line between items in a menu.

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(books, pages, backgrounds\)](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(multimedia\)](#)

[New OpenScript commands \(objects\)](#)

[New OpenScript commands \(resources\)](#)

[New OpenScript commands \(viewers\)](#)

[New OpenScript commands \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New commands (objects)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [OpenScript Reference Manual](#) or the online Help.

### Objects

Command	Description
<code>align &lt;type&gt;</code>	Aligns selected objects.
<code>copy resource</code>	Makes another copy of an embedded bitmap, icon, cursor, palette, or menu bar.
<code>drag</code>	Starts a drag-and-drop operation.
<code>sendNotifyAfter</code>	Sends a message that triggers an object's <code>notifyAfter</code> handler.
<code>sendNotifyBefore</code>	Sends a message that triggers an object's <code>notifyBefore</code> handler.

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(books, pages, backgrounds\)](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(multimedia\)](#)

[New OpenScript commands \(resources\)](#)

[New OpenScript commands \(viewers\)](#)

[New OpenScript commands \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New commands (resources)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

### Resource commands

Command	Description
<code>export resource</code>	Copies an embedded bitmap, icon, cursor, palette, or menu bar to a DOS file.
<code>import resource</code>	Embeds a bitmap, icon, cursor, palette, or menu bar from a DOS file
<code>insert graphic</code>	Embeds a bitmap or icon resource into a field.
<code>replace resource</code>	Overwrites an embedded bitmap, icon, cursor, palette, or menu bar with another.
<code>remove resource</code>	Discards an embedded bitmap, icon, cursor, palette, or menu bar imported previously with <code>import resource</code> .

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(books, pages, backgrounds\)](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(multimedia\)](#)

[New OpenScript commands \(objects\)](#)

[New OpenScript commands \(viewers\)](#)

[New OpenScript commands \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"



## New commands (books, pages, backgrounds)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

### Book, page, and background commands

Command	Description
<code>import book</code>	Copies all pages from another book to the current book.
<code>import pages</code>	Copies selected pages from another book to the current book.
<code>save as EXE</code>	Saves the current book with an .EXE shell that starts Multimedia ToolBook automatically.
<code>transition</code>	Displays a special effect such as fade or wipe between pages.

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(multimedia\)](#)

[New OpenScript commands \(objects\)](#)

[New OpenScript commands \(resources\)](#)

[New OpenScript commands \(viewers\)](#)

[New OpenScript commands \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New commands (viewers)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual](#) and [OpenScript Reference](#), or the online Help.

### Viewer (window) commands

Command	Description
<code>activate &lt;viewer&gt;</code>	Makes a particular viewer the current one.
<code>close &lt;viewer&gt;</code>	Closes a viewer.
<code>hide &lt;viewer&gt;</code>	Makes a viewer invisible but still available.
<code>in &lt;viewer&gt;</code>	Changes the active window temporarily in a script.
<code>new viewer</code>	Creates a new viewer.
<code>open &lt;viewer&gt;</code>	Initializes a viewer and makes its nonpersistent properties available.
<code>show &lt;viewer&gt;</code>	Displays a viewer opened previously with <code>openViewer</code> .

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(books, pages, backgrounds\)](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(multimedia\)](#)

[New OpenScript commands \(objects\)](#)

[New OpenScript commands \(resources\)](#)

[New OpenScript commands \(other\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## New commands (other)

Features new in Multimedia ToolBook 3.0

Multimedia ToolBook 3.0 includes the following new OpenScript commands. For more details about each command, see the [OpenScript Reference Manual](#), the [Multimedia ToolBook User Manual and OpenScript Reference](#), or the online Help.

### Other new commands

Command	Description
<code>fill &lt;array&gt;</code>	Fills all values in an array with a single value.
<code>seekFile</code>	Moves to a specified position in an ASCII file after opening the file with <code>openFile</code> .

Multimedia ToolBook 3.0 online Help

[New OpenScript commands](#)

[New OpenScript commands \(books, pages, backgrounds\)](#)

[New OpenScript commands \(menus\)](#)

[New OpenScript commands \(multimedia\)](#)

[New OpenScript commands \(objects\)](#)

[New OpenScript commands \(resources\)](#)

[New OpenScript commands \(viewers\)](#)

[ToolBook User Manual](#), Chapter 22, "Statements, functions, and expressions"

## • **Clip media**

### • **Features new in Multimedia ToolBook 3.0**

Multimedia ToolBook includes a wide selection of sound, video, and still-image clip media that you can use in your applications. Clip media files are located in directories below the \MEDIA directory on the Multimedia ToolBook 3.0 CD.

**Note** You have limited distribution rights to some of the clip media included with Multimedia ToolBook 3.0. For details about distributing clip media with your application, refer to the Multimedia ToolBook 3.0 license agreement.

Shipping files with Runtime Multimedia ToolBook

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## **Digital Video Producer**

### **Features new in Multimedia ToolBook 3.0**

Included with Multimedia ToolBook 3.0 is Digital Video Producer, a standalone utility for working with digital video files (.AVI files). Digital Video Producer enables you to create and edit digital videos, and add effects such as transitions and titles.

For information about Digital Video Producer, click its icon in the Multimedia ToolBook 3.0 Program Manager group, then choose Help or press F1.



## Documentation additions

The following topics describe information that became available after we printed the Multimedia ToolBook documentation.

- **General**
- **User Interface**
- **Full-text search**
- **Objects**
- **OpenScript**

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## Documentation additions

The following topics describe information that became available after we printed the Multimedia ToolBook documentation.

- **General**

- [Associating TBK files with Multimedia ToolBook 1.5 and 3.0](#)

- [Creating and accessing databases using Multimedia ToolBook](#)

- [Distributing Multimedia ToolBook applications](#)

- [Sending electronic mail from Multimedia ToolBook](#)

- [Printing colors on black-and-white printers](#)

- [Asymetrix System Information utility](#)

- [Using multiple instances of Multimedia ToolBook](#)

- [Using Multimedia ToolBook on a network](#)

- [Limits of Multimedia ToolBook objects](#)

- [Available multimedia drivers](#)

- [Features not supported in Runtime](#)

- [Available multimedia drivers](#)

- [Shipping files with Runtime Multimedia ToolBook](#)

- [Searching for ToolBook from .EXE files](#)

- **User Interface**

- **Full-text search**

- **Objects**

- **OpenScript**



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## Documentation additions

The following topics describe information that became available after we printed the Multimedia ToolBook documentation.

- **General**

- **User Interface**

- [Specifying three-dimensional controls in dialog boxes](#)

- [Global accelerator keys](#)

- [Menu event messages sent from tool bar](#)

- [Tool palette and tool bar captions and wrapping behavior](#)

- **Full-text search**

- **Objects**

- **OpenScript**

- 

## Documentation additions

The following topics describe information that became available after we printed the Multimedia ToolBook documentation.

- **General**

- **User Interface**

- **Full-text search**

- [Adding keywords to a page using OpenScript](#)

- [Adding pages to contexts using OpenScript](#)

- [Objects in unnamed sections](#)

- [Overriding word separators](#)

- [Overriding Hotword tag values](#)

- **Objects**

- **OpenScript**

- 

## Documentation additions

The following topics describe information that became available after we printed the Multimedia ToolBook documentation.

- **General**

- **User Interface**

- **Full-text search**

- **Objects**

- [32-instance limit on viewers](#)

- [Creating hotwords from RTF text](#)

- [Editing resources using resource editors](#)

- [Changes to the File menu](#)

- [Creating clips from Kodak PhotoCD images](#)

- [Importing graphics](#)

- [OLE server busy message](#)

- [Coordinating linked OLE objects with closed servers](#)

- [Displaying modal viewers](#)

- [Printing viewers](#)

- **OpenScript**

- 

## Documentation additions

The following topics describe information that became available after we printed the Multimedia ToolBook documentation.

- **General**
- **User Interface**
- **Full-text search**
- **Objects**
- **OpenScript**

[Clearing and resetting arrays](#)

[Declaring arrays as fixed or dynamic](#)

[Linking or embedding OLE objects using OpenScript](#)

[Optimizing comparison to true and false](#)

[Passing arrays by reference](#)

[Unlinking DLL functions](#)

[Undocumented OpenScript keywords](#)

## • **Associating .TBK files with Multimedia ToolBook 1.5 and 3.0**

### • **Documentation additions**

To manage .TBK files created with different versions of Multimedia ToolBook (1.5, and 3.0), use the File Manager to associate .TBK files with the TBLOAD.EXE utility. When you double-click any Multimedia ToolBook file or use the RUN command in File Manager, TBLOAD.EXE decides which version of ToolBook was used to create the book and launches the appropriate version. To establish the proper paths for different versions of ToolBook, add a section to your ASYM.INI file based on this example:

```
[ToolBook Load Information]
TB15=C:\TOOLBOOK\TOOLBOOK.EXE
TB30=C:\TB30\TB30.EXE
MTB30=C:\MTB30\MTB30.EXE
```

[Maintaining old and new versions of Multimedia ToolBook](#)

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## **Creating and accessing databases using Multimedia ToolBook**

### **Documentation additions**

Multimedia ToolBook allows you to create and maintain databases using two sets of DLL function calls: one to maintain a dBASE III-compatible database, and another to maintain a Paradox database. These database DLLs enable you to combine Multimedia ToolBook's graphical user interface with sophisticated database management.

To learn about using the database DLLs with Multimedia ToolBook, refer to the Database Reference online Help system provided separately with Multimedia ToolBook.

## Distributing Multimedia ToolBook applications

### Documentation additions

A new tool, Asymetrix Setup Utility, has two parts: SETUPMGR.TBK and SETUP.EXE. SETUPMGR.TBK allows you to package your application into a set of compressed files you can ship to customers. Your users can then use SETUP.EXE to decompress and install the files on disk.

Asymetrix Setup includes features to

- package multiple books, DLLs, and additional files into a single application.
- create optional modules in your application.
- create Program Manager groups and items.
- assign Program Manager icons to individual files.
- launch additional applications after installation is complete.

For details about Asymetrix Setup Utility, launch SETUPMGR.TBK from the Multimedia ToolBook 3.0 Program Manager group, then choose Help from the menu. For a list of files required when shipping Runtime Multimedia ToolBook, see [Shipping files with Runtime Multimedia ToolBook](#).



## • **Sending electronic mail from Multimedia ToolBook**

### **Documentation additions**

You can use your electronic mail (e-mail) system directly from Multimedia ToolBook by choosing Send Mail from the File menu at Author level. For this menu item to function, you must be using an e-mail system compatible with the Windows Mail API (MAPI), such as Microsoft Mail.

To use e-mail from OpenScript, send the `sendMail` message.

You can also use OpenScript programs to invoke e-mail from Multimedia ToolBook. For an example of how to do this, see the MAPI.TBK sample application.

## • **Printing color pages on black-and-white printers**

### **Documentation additions**

Multimedia ToolBook 3.0 provides enhanced color conversion for printing to monochrome and grayscale printers. The effect of this enhancement is that color pages printed to black-and-white printers from Multimedia ToolBook 3.0 will look significantly better than they do in Multimedia ToolBook 1.5.

When printing colors to a black-and-white printer, Multimedia ToolBook scales the colors to gray using a value called the "gamma factor," which specifies how much Multimedia ToolBook lightens each color. The value of the gamma factor can be between 1 and 255; the lower the number, the more colors are lightened. The default is 125.

To change the gamma factor, specify a new value for the "GammaFactor" entry in the MTB30.INI file. For example, to lighten colors further, change the entry in the MTB30.INI file to a value such as this:

```
GammaFactor=100
```

- 

## **Asymetrix System Information utility**

### **Documentation additions**

You can use a utility called Asymetrix System Information to display the following information about your computer:

- Processor type
- Memory available
- Disk drives available and the amount of free space on each one
- Windows directory
- Color device information (such as the number of colors and the driver name)
- Drivers installed for multimedia

Run Asymetrix System Information as a standalone utility from the Program Manager or by choosing Run from the File menu in Multimedia ToolBook 3.0. You can also add it as a menu item on the Help menu in Multimedia ToolBook by adding MTB30.SBK to the `sysBooks` property.

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## Using multiple instances of Multimedia ToolBook

### Documentation additions

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With Multimedia ToolBook 3.0's ability to create viewers (multiple windows), most applications can run successfully using only a single Multimedia ToolBook instance (copy). However, in some circumstances you might want to start a second instance of Multimedia ToolBook as part of your application. If you do, here are a few tips:

- You do not need to open another instance of Multimedia ToolBook in order to get and set properties of objects in other books. You can simply refer to the property of an object from another book, and Multimedia ToolBook will access the book and get the value without starting another instance.
- Persistent properties apply across instances. If you load the same book in two or more instances of Multimedia ToolBook, any persistent property of an object is reflected in all running instances of that book. For example, if a user is typing in a field, each change to the field's text shows up in all instances.
- Settings for nonpersistent properties of all objects apply only to the current instance. For example, if you set `sysGrid` to `true` in one instance, it is not necessarily true in the other instance. Viewers have a special set of nonpersistent properties that allow them to be used effectively in multiple instances.
- You can run one instance of Multimedia ToolBook at Author level while another is at Reader level. This allows you to send commands to the Reader-level instance if you cannot get to Author level in that instance.



## • Using Multimedia ToolBook on a network

### Documentation additions

Multiple users can share Multimedia ToolBook applications on a network if the Multimedia ToolBook utility TB30NET.EXE is in each user's path. This utility comes with Multimedia ToolBook and is installed in the same directory as Multimedia ToolBook itself.

TB30NET guards against two or more users changing a book at the same time. If that were to happen, either one user's changes would be lost or the book could become corrupted.

There are two ways to maintain network versions of Multimedia ToolBook applications:

- Provide a read-only version of a book that can be opened and used by anyone. However, because the book is read-only, no changes can be saved, including text changed in fields.
- Provide a standard, read-write version of a book, which can be opened by only one user at a time. No other user can open the book (even implicitly by attempting to get the property of an object in the book). Other users cannot copy the book, delete it, or change its file attributes until the first user closes it.

To make a book read-only, use the Windows File Manager. Select the file, choose Properties from the File menu, then check the Read Only box under Attributes.

**Tip** For best performance, each user should run Multimedia ToolBook locally and use the network only to access the book itself.

## Limits of Multimedia ToolBook objects

### Documentation additions

The following table lists the limits to which various Multimedia ToolBook objects are constrained.

Object	Limit
Book	Maximum number of pages: 65,536 (64K). This maximum is reduced when the book contains viewers, scripts with more than 1,024 bytes, bitmap resources, menu bars, color palettes, or embedded OLE objects. In practical terms, a book is limited to about 50,000 pages.
Background, page	<p>Maximum number of objects on background or page: varies. Each background or page can occupy up to 65,536 bytes (64K) of memory. Each object on the background or page, including pages, requires a fixed amount of memory. (For example, each button requires about 90 bytes.) Additional memory is occupied by text (in fields, record fields, and combo boxes), scripts, and user properties.</p> <p>The maximum number of objects therefore depends on which objects are placed on the background and how much extra memory they require. As an example, you could put 1,100 lines on a background if none of them had scripts or user properties. However, you could only place two fields on the background if each contained 32,000 characters of text.</p> <p>To optimize the way a background or page uses memory, save the book with a different name with the <code>save as</code> command, which organizes the memory used by a background or page to its optimal configuration.</p>
Field, record field	Maximum number of characters: 32,000. If the text is formatted, or if there are other objects on the background or page, you might not be able to put the maximum amount of text into the field or record field.
Variable	Maximum number of characters: 65,473. Maximum data in all variables combined: 16MB.
Handlers	Maximum levels of nesting: 1,024 (1K), but this limit is reduced depending on the complexity of the script. The practical limit is between 50 and 300.

**Tip** To determine how much free space is available on a background or page, use `percentFreeSpace` property.

## Features not supported in Runtime Multimedia ToolBook

### Documentation additions

The following tables list the properties, commands, and messages that do not function in Runtime Multimedia ToolBook. Unless otherwise noted, attempting to use these results in an error.

At the end of this topic you will find a list of additional differences in behavior between the development and Runtime versions of Multimedia ToolBook.

### Properties

Attempting to set any of the following properties in Runtime Multimedia ToolBook results in an error. You can get the value of some of the properties, as listed in the table.

Property	Value in Runtime Multimedia ToolBook
bounds of <code>commandWindow</code> , <code>toolBar</code> , <b>any palette</b>	
position of <code>commandWindow</code> , <code>toolBar</code> , <b>any palette</b>	
size of <code>commandWindow</code> , <code>toolBar</code> , <b>any palette</b>	
<code>startupAutoScriptFile</code>	Name of Auto-Script file
<code>startupReaderRightClick</code>	false
style of <code>toolBar</code> , <code>toolPalette</code>	
<code>sysAutoScriptFile</code>	Name of Auto-Script file
<code>sysGrid</code>	false
<code>sysGridSnap</code>	false
<code>sysGridSpacing</code>	
<code>sysLevel</code>	reader
<code>sysReaderRightClick</code>	false
<code>sysRuler</code>	false
<code>sysRuntime</code>	true
<code>sysShowMRUFiles</code>	false
<code>sysTool</code>	reader
tile of <code>toolbar</code> , <code>toolPalette</code>	
tileOrder of <code>toolbar</code> , <code>toolPalette</code>	
tileWrap of <code>toolbar</code> , <code>toolPalette</code>	
visible of <code>commandWindow</code>	false
visible of <code>toolbar</code> , <b>any palette</b>	false

### Commands

Attempting to execute the following commands results in an error in Runtime Multimedia ToolBook:

```
edit script
sort (but not the sort message)
put command with commandWindow as the
destination
```

Runtime Multimedia ToolBook does not respond when you execute the following commands, but it does not display an error message:

```
add menu
add menuItem
```



check menu  
check menuItem  
disable menu  
disable menuItem  
enable menu  
enable menuItem  
remove menu  
remove menuItem  
restore menubar  
uncheck menu  
uncheck menuItem  
Any menu command that specifies at author

## Messages

Runtime Multimedia ToolBook displays an error if you attempt to send any of the following messages that display an Author-level dialog box, manipulate the palettes or the grid, or change to Author level.

author  
autoScript  
backgroundProperties  
bookProperties  
color  
command  
contents  
debugScript  
editScript  
file1, file2, file3, file4 (MRU  
**file list aliases)**  
grid  
importGraphic  
keyboardShortCuts  
learningToolBook  
line  
lineEnds  
menuCommands  
newViewers  
openScriptReference  
pageProperties  
pageSize  
pattern  
polygon  
properties  
reader (ignored; no error)  
resources  
rulers  
searchForHelpOn  
showGrid

snapGrid  
sort  
startRecording  
stepByStep  
stopRecording  
technicalSupport  
tool  
toolbar  
viewers

### **Additional differences in Runtime Multimedia ToolBook**

- Help buttons are removed in all built-in dialog boxes.
- Instead of displaying the Execution Suspended message box when encountering an error, Runtime Multimedia ToolBook displays the text of the error message in an Error message box. The user can see more information about the error by holding down the Ctrl key while clicking Cancel. Runtime Multimedia ToolBook displays the Execution Suspended dialog box with all buttons removed except Cancel.
- If you start Runtime Multimedia ToolBook without a file name
  - Multimedia ToolBook displays the Open dialog box to prompt you for the name of a .TBK file to open.
  - Runtime Multimedia ToolBook displays the copyright bitmap (no copyright bitmap is displayed if you specify a book on the command line).
  - the default menu bar is the File menu with Open and Exit menu items.

# Shipping files with Runtime Multimedia ToolBook

## Documentation additions

The following files are required for Runtime Multimedia ToolBook:

MTB30BAS.DLL  
MTB30BMP.DLL  
MTB30CMP.DLL  
MTB30FLT.DLL  
MTB30LNL.DLL  
MTB30MM.DLL  
MTB30MM.INI  
MTB30NET EXE  
MTB30RUN.EXE  
MTB30UTL.DLL  
PCDLIB.DLL  
PCDXBMP.DLL  
PHOTO.DLL  
TBLOAD.EXE

The following files are optional; you can include them with your application if necessary:

PXENGWIN.DLL      (used with Paradox Engine DLL)  
TB30DB3.DLL      (used with dBASE III DLL)  
TB30DLG.DLL  
TB30DOS.DLL  
TB30PDX.DLL      (used with the Paradox Engine DLL)  
TB30WIN.DLL

**Note** For information about the Paradox Engine and dBASE III DLLs, see [Creating and accessing databases using ToolBook](#).

If you are shipping an application containing a full-text search index, you should include the following files as well:

FTS30IQR.DLL  
FTS30RDR.DLL  
FTS30HLP.STS  
FTS30MAC.STS  
FTS30MSG.STS  
FTS30MTB.DLL

For information about what files you are allowed to distribute with your Runtime Multimedia ToolBook application, refer to the file called FILELIST.WRI.

MTB30NET.EXE required for all file access

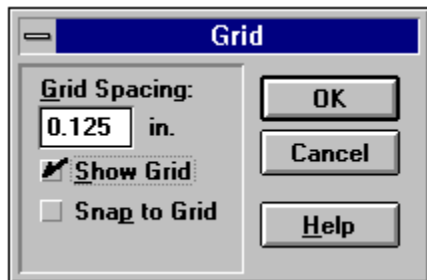
## Specifying three-dimensional controls in dialog boxes

### Documentation additions

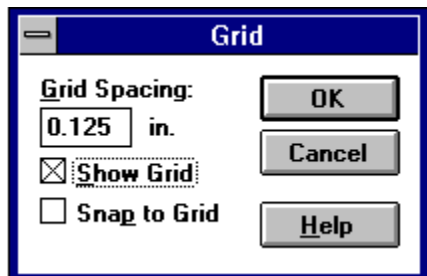
The built-in dialog boxes that appear in Multimedia ToolBook can appear in the traditional Windows style or the newer three-dimensional style. You specify the style of dialog boxes using the system property `sys3DInterface`. If this property is `true`, all dialog boxes appear in the three-dimensional style; if `false`, all dialog boxes appear in the traditional style.

You can set Multimedia ToolBook's default value for this property by setting the corresponding `startup3DInterface` to `true` or `false`.

### Example of a three-dimensional dialog box



### The same dialog box in the traditional style



## Global accelerator keys

### Documentation additions

To switch from Author to Reader level and back again, you can choose Reader or Author from the Edit menu, or you can press the F3 accelerator key. The F3 accelerator key is always available at Reader level. Therefore, you can remove the Author menu item from the menu of the Main window or of your viewer and still be able to switch to Author level.

When you press F3, Multimedia ToolBook sends the `author` message to the current page in the window that has the focus. If there is no handler in the object hierarchy to interpret the message, Multimedia ToolBook switches to Author level.

**Note** You cannot switch from Reader to Author level in Runtime Multimedia ToolBook, so the F3 accelerator key is not available in that version.

## Disabling the F3 key

To disable the F3 key, write a handler for the `author` message that does not forward the message. For example:

```
to handle author
  request "You cannot switch to Author level in this book."
end
```

**Note** Use this approach with care. If you trap the `author` message, you will not be able to switch to Author level at all, even if you retain the Author menu item.

## Defining additional accelerator keys

To define other accelerator keys, specify them as part of the menu bar for a viewer (window). For details about creating or editing a menu bar, start the Menu Bar editor by choosing Menu Bar under Available Resources in the Resource Manager dialog box, then clicking New. Press F1 in the Menu Bar editor for help on how to define accelerator keys.

Alternatively, you can write a `keyUp` handler to respond to key event message for particular keys. For example, this handler in a book script allows you to edit the script of any object when you press Ctrl+E:

```
to handle keyUp key, isShift, isCtrl
  if key = KeyE and isCtrl = true then
    Ask "What object?"
    edit script of It
  else
    forward
  end
end
```

Changed keyboard accelerators

- ## Menu event messages sent from tool bar

- ### Documentation additions

When you click a button on the tool bar, Multimedia ToolBook sends the corresponding menu event message to the page in the viewer that has the focus. For example, if you click the New Page button, Multimedia ToolBook sends the `NewPage` message.

**Tip** To use the tool bar in a viewer other than the Main window, tear it off the Main window by clicking between buttons and dragging it away from the frame. It will then operate with whatever viewer has the focus.



ToolBook User Manual, Chapter 2, "ToolBook orientation"

ToolBook User Manual, Chapter 21, "Messages, objects, and properties"

- 

## Tool palette and tool bar captions and wrapping behavior

### Documentation additions

- 

You can right-click the tool palette and the tool bar to display a menu that allows you to specify whether you want to see graphics, captions, or both. Both can also be wrapped when they're tiled. The wrapping is optional and can be set by right-clicking the tool bar or tool palette, or by setting a new property called `tileWrap` to true.



•

## **32-instance limit on viewers**

### **Documentation additions**

•

There is a 32-instance limit on opening and closing viewers in one script (a single handler and any other handlers that it calls). This limit applies to opening and closing the same viewer repeatedly or opening and closing up to 32 separate viewers.

When Multimedia ToolBook is idle, it clears the count of viewer instances.



## Creating hotwords from RTF text

### Documentation additions

You can create hotwords using a word processing or other Windows program that supports rich-text format (RTF), then pasting or importing them into your application:

#### To create a hotword from RTF text:

1. Create the text in a word-processing program that can cut or copy RTF text onto the Clipboard.
2. Format the text that will be a hotword with a double underline.
3. Format at least one character immediately following the double-underlined text as hidden text.
4. Close the hotword definition with a semicolon (;).
5. Cut or copy the text to the Clipboard.
6. In Multimedia ToolBook, put the insertion point into a field and paste the text. Text that is double-underlined with a following hidden character becomes a hotword.

**Tip** Instead of cutting the text to the Clipboard and pasting it in Multimedia ToolBook, you can use the Import Text option from the Tools menu.

You can specify the `name` and `hotwordstyle` properties for the hotword by including parameters for them in the hidden text following the double-underlined text. Use this format, where the single underline represents hidden text:

```
NewHotword name=Contents; hotwordstyle=frame;  
=====
```

The space immediately following `newHotword` is hidden as well. You can include additional user properties and values (up to 100 characters), but any properties other than `name` and `hotwordstyle` will be treated as user properties.

[Tools menu](#)

[ToolBook User Manual](#), Chapter 6, "Adding text"

## • **Editing resources using resource editors**

### • **Documentation additions**

Multimedia ToolBook includes a number of editors you can use to create new resources (bitmaps, color palettes, menu bars, icons, and cursors) or edit existing ones. To create a new resource, click New in the Resource Manager dialog box. To edit an existing resource, select the resource in the Resource Manager dialog box and click Edit. Multimedia ToolBook starts the appropriate resource editor.

<b><u>When editing</u></b>	<b><u>Multimedia ToolBook starts</u></b>
Bitmaps	BitEdit (BITED30.EXE)
Color palettes	PalEdit (PALED30.EXE)
Menu bars	MenuEdit (MENUED30.EXE)
Icons	Icon/Cursor editor (ICONED30.EXE)
Cursors	Icon/Cursor editor (ICONED30.EXE)

You can also run these editors as standalone applications.

For help while using the resource editors, press F1.



## Changes to the File menu

## Changes to the File menu

### Documentation additions

If you invoke a resource editor from the Resource Manager dialog box, Multimedia ToolBook changes the resource editor's File menu to reflect the commands that are available while working within Multimedia ToolBook. The File menu is laid out as shown below (<type> menu item refers to the type of resource supported by the editor: Bitmap, Palette, Menubar, Icon, or Cursor).

#### File

##### New

##### Open From...

<Type> In Current Book...

<Type> In Other Book...

File...

##### Save | Update

##### Save As...

<Type> In Current Book...

<Type> In Other Book...

File...

-----  
Exit

**New (Ctrl+N)**

Creates a new resource after prompting you to save or update the current resource. If a current book is defined, it is closed. In the Icon/Cursor editor, the New Resource dialog box allows you to specify what type of resource to create.

## **Open From <Type> In Current Book**

Opens a resource for editing from those already imported into the book you are working with. This menu item is only enabled if you invoked the editor from a Multimedia ToolBook book.

## **Open From <Type> In Other Book**

Opens a resource for editing from a book other than one you are working with. The book you choose becomes the current book and the Choose Resource dialog box is displayed, from which you can choose the resource to edit.

## **Open From File**

Open a resource from a DOS file. For example, you can open and edit a color palette as a DOS file that has a .PAL extension. If you are working in a book, it is closed.

## **Save | Update Menu Item                      (Ctrl+S)**

Saves or updates the current resource. If you have not previously saved the resource, or if you are editing a resource as a DOS file, this menu item is Save. If you are editing a resource already imported into a book, the menu item is Update.

Selecting this menu item for a new, unsaved resource is the same as selecting Save As File.

**Save As <type> In Current Book**

Saves the resource you are working with as a new resource in the current book. When you choose this option, you are prompted to assign a name to the resource.



## **Save As R<type> In Other Book**

Saves the resource as a new resource in a book other than the one you are working with. When you choose this option, you are prompted to assign a name to the resource. The book you are working with is closed, and the new book becomes the current book.

## **Save As File**

Saves the resource as DOS file. If you are working with a book, the book is closed.

## **Exit**

Close the application. If you have not saved your work, you are prompted to do so.



## Importing graphics

### Documentation additions

In Multimedia ToolBook 3.0 you can import graphics from a variety of formats. The ASYM.INI file lists the filters that are available.

<u>File extension</u>	<u>Source file format</u>	<u>ToolBook object type</u>
.BMP	Bitmap	bitmap
.DIB	Device Independent Bitmap	bitmap
.CDR	CorelDRAW	picture
.CGM	Computer Graphics Metafile	picture
.DRW	Micrografx Draw Picture	picture
.DXF	Autodesk AutoCAD Interchange	picture
.EPS	Encapsulated PostScript	picture
.GIF	Graphics Interchange Format	picture
.CH2	Harvard Graphics 2.x	picture
.CH3	Harvard Graphics 3.0	picture
.PCT	Macintosh QuickDraw Picture	picture
.PCX	ZSoft PC Paintbrush	picture
.PIC	Lotus 1-2-3 Graphic	picture
.SY3	Harvard Graphics 3.0 Symbol	picture
.SYM	Harvard Graphics 2.3 Symbol	picture
.TIF	Tagged Image File Format	picture
.WMF	Windows Metafile	picture

(h)Multimedia ToolBook creates a picture out of any graphic file format that requires an import filter. However, you can convert picture objects to paint objects using the new `convertPicture` message.

## Quality of imported graphics

You might detect a difference in how well Multimedia ToolBook displays a graphic depending on how you have imported it. For example, if you import a Windows metafile (.WMF file) by copying it to the Clipboard and then pasting it onto a Multimedia ToolBook page, it might not look as good as if you had imported it using the Import Graphic command on the File menu. If the quality of an imported graphic is not what you expected, try one of these solutions:

- Export the graphic from the original source as a .WMF file, then use the Import Graphic command on the File menu to import it.

- Import the graphic from the source application into some other application (such as a word processing program); if it looks good there, copy it to the Clipboard, then paste it in Multimedia ToolBook.

If the colors in the graphic are not what you expect, you may be importing a graphic into Multimedia ToolBook that was created with more colors than your computer can display. For example, if the graphic was created with 32,000 colors but your system only uses 256, Multimedia ToolBook dithers the 32,000 colors using the current color palette, which may result in colors that don't match the original graphic very well. You can adjust the colors by using a different color palette in the book, or by modifying the graphic in the source application to match the number of colors available on your system.

[Using the MTB30.INI file](#)

ToolBook User Manual, Chapter 10, "Adding graphics and images"

ToolBook User Manual, Appendix B, "Working with 256-color display devices"

## **OLE server busy message**

### **Documentation additions**

If the OLE server is busy when you try to edit or play an OLE object, Multimedia ToolBook enters a wait state in which you cannot click the mouse or enter keystrokes. If the server is still unavailable after six seconds, Multimedia ToolBook displays a dialog box that lets you switch to the application that is the OLE server or retry your operation. (By switching to the application, you may be able to correct a condition, such as an open dialog box, that is keeping it from becoming available as an OLE server.) If the server becomes free, the dialog box disappears and your operation continues.

ToolBook User Manual, Chapter 12, "Using object linking and embedding"



## • Coordinating linked OLE objects with closed servers

### Documentation additions

If your Multimedia ToolBook book contains a linked OLE object and the OLE server closes its view of the linked files, you may experience two problems.

1. If the OLE server closes its view of the linked file without saving changes, your OLE object might still reflect these discarded changes.

To keep your OLE object current, set its `upToDate` property to `true` at strategic times, such as when you navigate to the page that displays the object, when you leave that page, or when you close the book. Keep in mind, though, that setting an OLE object's `upToDate` property to `true` invokes the OLE server if it is not already running.

2. If the OLE object is in a book that doesn't currently appear in the Main window, the OLE object may keep that book open until it is notified that the OLE server has closed its view of the linked file.

Each time you set the `upToDate` property of an OLE object, it confirms its connection to the OLE server. You can therefore temporarily set the OLE object's `upToDate` property to `false`; if the OLE object determines that the OLE server has closed its view of the linked object, the OLE object allows the Multimedia ToolBook book to close.

ToolBook User Manual, Chapter 12, "Using object linking and embedding"

- 

## Displaying modal viewers

### Documentation additions

- 

You cannot display modal viewers at Author level. If you display a modal viewer at Reader level and then switch to Author level, the viewer becomes modeless. If you are at Author level when you try to display a modal viewer, Multimedia ToolBook displays an error.

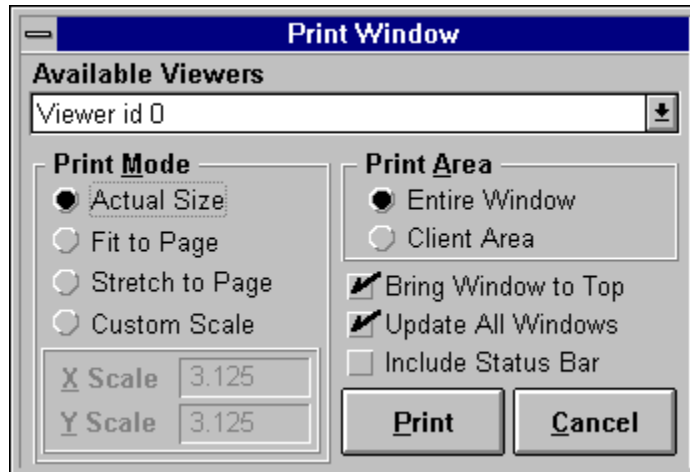


## Printing viewers

### Documentation additions

A new system book, PRINTWND.SBK, allows you to print a viewer and its current contents. Adding PRINTWND.SBK to the `sysBooks` property adds a Print Window item to the File menu at the Author level (which sends the `printWindow` message).

When you choose this menu item, Multimedia ToolBook displays this dialog box:



Commands available in the target window  
Printing colors on black-and-white printers

## **Available Viewers**

Choose the viewer to print from the list of all viewers currently open. The viewer you choose determines what area of the screen is printed.

## **Print Mode**

Specifies how the viewer is scaled to the printed page.

Actual Size. Prints the viewer at the size it appears on the screen.

Fit to Page. Scales the viewer up to the best fit on the page.

Stretch to Page. Stretches the viewer to fill the entire page.

Custom Scale. Scales the viewer by the factors you specify in the X Scale and Y Scale boxes.



## **Print Area**

If Entire Window is checked, Multimedia ToolBook prints the contents of the viewer as well as its frame and caption bar. If Client Area is checked, Multimedia ToolBook prints only the area inside the viewer's frame.

## **Bring Window to Top**

If this option is checked, Multimedia ToolBook places the viewer to be printed on top of other windows before printing. Multimedia ToolBook also hides the tool bar, palettes, and the Command window before printing.

**Note:** Multimedia ToolBook cannot place a viewer on top of its own child windows. For example, if the viewer you want to print displays a child window as a tiled tool palette, both viewers print, even if you check the Bring Window to Top box.

## **Update All Windows**

Specifies that all windows currently visible should be refreshed before Multimedia ToolBook prints the viewer. This option ensures that if Multimedia ToolBook hides the Command window and tool palettes, any objects behind them print correctly.

**Include Status Bar**

If checked, specifies that the viewer's status bar (if any) is printed.

**X and Y Scale boxes**

If you choose Custom Scale under Print Mode, enter the factors (X for horizontal dimension and Y for vertical dimension) by which you want the viewer scaled. For example, an X factor of 3.125 will cause the viewer to be printed three and one-eighth times wider than normal.

## • Clearing and resetting arrays

### • Documentation additions

The `clear` command deletes both fixed and dynamic arrays. After an array is cleared, it is no longer accessible in the current handler. The `clear` command is useful for freeing the memory used by an array. You should clear large arrays, especially system arrays, when they are no longer used.

If you want to preserve the dimensions of a dynamic array but clear all of its entries, use the `fill` command to set all elements of the array to `null`. For example:

```
fill myArray with null
```

An undocumented command, `reset`, resets the dimensions of a dynamic array to zero, which is useful if you want to replace contents of the array with new contents containing fewer elements. Resetting the array saves memory and allows the `dimensions()` function to return an accurate count of the number of elements. For example:

```
local largeArray[], smallArray[]
largeArray[20] = "sample text"
smallArray[1] = "more text"
request dimensions( largeArray ) --Returns 20
reset largeArray      --Removes all elements
largeArray = smallArray
request dimensions( largeArray ) --Returns 1
```

Multimedia ToolBook displays an error if you attempt to reset a fixed array.

[Declaring arrays as fixed or dynamic](#)

[Passing arrays by reference](#)

[ToolBook User Manual, Chapter 23, "Variables, values, and text"](#)

## Declaring arrays as fixed or dynamic

### Documentation additions

You can declare an array as `fixed` or `dynamic`. This eliminates the ambiguity that arises when you use arrays for system variables and arguments, and it provides more rigorous error checking when arrays are passed between handlers. For example:

```
to handle buttonClick
  local array1[10]
  local array2[]
  get userFunction(array1, array2)
end

to get userFunction fixed arrayVar[], dynamic arrayVar2[]
  --Further statements here
end
```

The `fixed` keyword in this example specifies that `arrayVar` is a fixed array of one dimension with an unspecified number of elements. Because the array is fixed, you cannot perform any dynamic array operation on it, such as resetting or expanding it. If you declare an argument to be a fixed array, but you pass it as a dynamic array, the argument is still treated as a fixed array, and you cannot expand or reset it. The keyword `dynamic` specifies that the array `arrayVar2` is a dynamic array and can be reset.

System variables may also be declared as `fixed` or `dynamic`. You can declare a fixed system variable whose size you do not know in advance. For example:

```
system fixed bar[]
system fixed string alphaArray[]
system dynamic int numArray[]
system int numArray2[]      --dynamic is the default
```

Multimedia ToolBook will check your array system variables to ensure they are compatible with any previously declared version of the same variable. For example, if you try to redeclare a 10-element fixed array as a 5-element fixed array, or redeclare a dynamic array as a static array of different dimensions, Multimedia ToolBook displays an error.



[Clearing and resetting arrays](#)

[Passing arrays by reference](#)

[ToolBook User Manual](#), Chapter 23, "Variables, values, and text"

- 

## Linking or embedding OLE objects using OpenScript

### Documentation additions

- 

You can paste an OLE object in OpenScript by copying the object from the OLE server to the Clipboard, then sending the `pasteSpecial` message with one of these Clipboard format parameters:

- `linked` to create a linked object
- `embedded native` to create an embedded object

For example:

```
--Creates a linked object from the object on the Clipboard  
send pasteSpecial linked
```

ToolBook User Manual, Chapter 12, "Using object linking and embedding"

•

## Optimizing comparisons to `true` and `false`

### Documentation additions

•

If you are determining whether a value is `true` or `false`, you can optimize the comparison by avoiding a string comparison with the string `true`. For example:

```
--As documented
if visible of selection = true then ...
--Faster version of same comparison
if visible of selection then ...
```



## • Passing arrays by reference

### • Documentation additions

By default, when you pass an array as a parameter to another handler, the array is passed by value, meaning that Multimedia ToolBook makes a copy of it for the new handler. Changes made to the array in the called handler are not reflected in the calling handler, which retains its own copy of the array.

To provide optimal speed and programming convenience, you can also pass an array by reference: the calling and called handlers share the same array. Changes made to the array in the called handler are reflected in the calling handler automatically. Passing arrays by reference is preferred for tasks such as sorting arrays.

To pass an array by reference, add the phrase `by reference` in the parameter list of the called handler. For example:

```
to get swapElements myArray[] by reference, elem1, elem2
    temp = myArray[elem1]
    myArray[elem1] = myArray[elem2]
    myArray[elem2] = temp
    return true
end
```

Because you are passing the array `myArray` by reference, the swap operation performed in this handler swaps the original elements in the calling handler.

[Clearing and resetting arrays](#)

[Declaring arrays as fixed or dynamic](#)

ToolBook User Manual, Chapter 23, "Variables, values, and text"

## • Unlinking DLL functions

### Documentation additions

You can now unlink individual DLL functions instead of unlinking the entire DLL. Use either of these formats:

```
unlinkDLL function <function list> from <dll name>
unlinkDLL functions <function list> from <dll name>
```

The <function list> parameter contains an expression that evaluates to a list of one or more function names.

The <dll name> parameter contains the name of the DLL from which to unlink the functions. For example:

```
unlinkdll function "messageBeep" from "user"
unlinkdll functions "messageBeep,GlobalAlloc" from "kernel"
```

## Determining what DLL functions are already linked

You can determine which DLL functions are linked by calling the `DLLFunctions()` function. Use the following syntax:

```
DLLfunctions(<dll name>)
```

The <dll name> parameter contains the name of the DLL for which you want to determine what functions are linked. The function returns a comma-separated list of the functions linked in the specified DLL. If the DLL is not linked, the function returns `null`. For example:

```
get DLLfunctions("tb30dlg.dll")
```



## Undocumented OpenScript keywords

### Documentation additions

The following OpenScript keywords have been added since the [OpenScript Reference Manual](#) was finished.

### Commands and functions

Keyword	Description	Further information
<code>by reference</code>	Qualifier for passing arrays as parameters to other handlers.	<a href="#">Passing arrays by reference</a>
<code>fixed</code> , <code>dynamic</code>	Qualifiers for declaring arrays with the <code>local</code> and <code>system</code> commands.	<a href="#">Declaring arrays as fixed or dynamic</a>
<code>getFileListDlg()</code>	DLL function that displays the standard Windows File List dialog box.	Online Help
<code>getFileListDlg-Index()</code>	DLL function that returns the index number of a file selected in the File List dialog box.	Online Help
<code>getFileVersion()</code>	DLL function that returns information about a file, including its current path, version number, copyright, and product name.	Online Help
<code>listToTextline()</code>	DLL function that converts comma-delimited lists to CRLF-delimited textlines.	Online Help
<code>sortList()</code>	DLL function that sorts lists of items.	Online Help
<code>sortText()</code>	DLL function that sorts CRLF-delimited lines.	Online Help
<code>textlineToList()</code>	DLL function that converts CRLF-delimited textlines to comma-delimited lists.	Online Help

### Messages

Keyword	Description	Further information
<code>stateChanged</code>	Sent to a viewer when it is minimized, restored, or maximized.	Online Help
<code>systemRestored</code>	Sent when the Restore System command is executed. Useful to alert system books that they must reinitialize system variables and relink DLLs	Online Help

### Properties

Keyword	Description	Further information
<code>onSave</code>	Additional value for <code>updateLink</code> property of linked OLE objects that specifies that the object is to be updated when the user saves the book containing it.	(not documented elsewhere)
<code>tileWrap</code>	Tool bar and tool palette property. If <code>true</code> , and if the object (tool bar or tool palette) is tiled, the object wraps when the window is made narrower than the object. If <code>false</code> , the object is clipped.	<a href="#">Captions and wrapping behavior for the tool palette and tool bar</a> Online Help
<code>wordWrapUnits</code>	Book property that specifies horizontal and vertical spacing for text.	<a href="#">Changes in word wrap behavior</a> Online Help

## Available multimedia drivers

### Documentation additions

The Multimedia ToolBook 3.0 CD-ROM contains drivers for the following multimedia types:

- Video for Windows version 1.1 (.AVI files)
- AutoDesk Animator version 1.1 (.FLI and .FLI files)
- QuickTime for Windows version 1.1.1 (.MOV, .PIC, and .JPG files)
- Pioneer laserdisc players
- VISCA-compatible VCR devices

These files are located in the \drivers directory on the CD-ROM. MCI drivers for additional multimedia devices are available from the device manufacturer.

With the exception of QuickTime for Windows, these drivers may be redistributed with your Multimedia ToolBook application. For information regarding licensing the QuickTime drivers for redistribution, please see the README.WRI file in the QTW directory.

## Installing the multimedia drivers

### **Video for Windows version 1.1 (.AVI files)**

- Run SETUP.EXE in the \DRIVERS\VFW11 directory on the Multimedia ToolBook CD-ROM.

### **AutoDesk Animator version 1.1 (.FLI and .FLI files)**

- Run SETUP.EXE in the \DRIVERS\AUTODESK directory on the Multimedia ToolBook CD-ROM.

### **QuickTime for Windows version 1.1.1 (.MOV, .PIC, and .JPG files)**

- Run SETUP.EXE in the \DRIVERS\QTW directory on the Multimedia ToolBook CD-ROM.

### **Pioneer laserdisc players**

1. In the Windows Control Panel, click the Drivers icon to display the Drivers dialog box.
2. Click Add.
3. Under List of Drivers in the Add dialog box, choose Unlisted or Updated Driver.
4. In the Install Driver dialog box, click Browse, then select the \DRIVERS\LASERDISK directory on the Multimedia ToolBook CD-ROM.
5. Click OK twice.

To configure the laserdisc driver for your system, click Setup in the Drivers dialog box.

### **VISCA-compatible VCR devices**

1. In the Windows Control Panel, click the Drivers icon to display the Drivers dialog box.
2. Click Add.
3. Under List of Drivers in the Add dialog box, choose Unlisted or Updated Driver.
4. In the Install Driver dialog box, click Browse, then select the \DRIVERS\VISCA directory on the Multimedia ToolBook CD-ROM.
5. Click OK twice.

## • Creating clips from Kodak Photo CD images

### Documentation additions

You can create a clip to display photographs from a Kodak Photo CD. This is different from importing a Photo CD image, which converts the image into a bitmap. Creating a clip of a Photo CD image enables you to position and size the photograph using a stage, display it with OpenScript commands, and change its attributes by setting clip properties.

### To create a clip from a Kodak Photo CD:

1. From the Object menu, choose Clips to open the Clip Manager.
2. Click New to open the Choose Source Type dialog box, then select Image (Photo CD).  
The Photo CD dialog box appears.
3. Under CD Drive, select the letter of the drive that contains the Photo CD.  
A thumbnail of the first photo on the CD appears
4. To move between photos, use the scroll bar at the bottom of the picture. To speed the process of scrolling, click Load All to preload the thumbnails into memory.
5. When you have selected the photo, choose its size from the Size list box. (You can resize the image in a stage when you display it.)
6. Click OK to create the clip.
7. In the Clip editor Clip box, type a name for the image.
8. Click OK to close the Clip editor, then click Close to close the Clip Manager.

**Tip** If you intend to distribute the Photo CD with your application, be sure you have appropriate rights. For information about the rights for any particular image, click Rights in the Photo CD dialog box.

## • **Searching for Multimedia ToolBook from .EXE files**

### • **Documentation additions**

When you create an .EXE file using the Save as EXE command, the book contains instructions on launching Multimedia ToolBook (MTB30.EXE). The book searches for MTB30.EXE in this order:

- (1) The directory specified in the TB30 entry of the [Registered Apps] section in the ASYM.INI file.  
The book searches first for the development version of Multimedia ToolBook (MTB30.EXE), then the Runtime version (MTB30RUN.EXE).
- (2) The DOS search paths.
- (3) The program associated with .TBK files in the [Extensions] section of the WIN.INI file. If you perform a full installation of Multimedia ToolBook, the associated application will be TBLOAD.EXE.

[Associating TBK files with Multimedia ToolBook 1.5 and 3.0](#)  
[Using the MTB30.INI file](#)

[ToolBook User Manual](#), Chapter 17, "Preparing applications for release"

## • **Adding keywords to a page using OpenScript**

### • **Documentation additions**

You can add keywords to a page using the Page Settings box. Alternatively, you can use an OpenScript command such as the following:

```
push "Pigeons" onto ftsKeywords of this page
```

There is no equivalent command to create a list of keywords for the book as a whole. If you add keywords to pages using this command, they do not initially appear in the Keywords in Book(s) list box when you display the Page Settings dialog box or in the Keywords Used in Index list in the Keywords tab of the Index Settings dialog box.

However, you can build the list out of existing keywords. In the Index Settings dialog box, click the Files tab, then remove and re-enter the name of the current book from the list under Included Books. When you click OK, Multimedia ToolBook rebuilds the list of keywords currently available in the book.

Multimedia ToolBook User Manual and OpenScript Reference, Chapter 8, "Adding full-text search"

## • **Adding pages to contexts using OpenScript**

### • **Documentation additions**

You can add a page to a context using an OpenScript command such as the following:

```
ftsContext of this page = "owls"
```

There is no equivalent command to create a list of contexts for the book as a whole. If you add a page to a context using this command, the context does not initially appear in the Page Contexts list in the Pages tab of the Index Settings dialog box.

However, you can build the list out of existing contexts. In the Index Settings dialog box, click the Files tab, then remove and re-enter the name of the current book from the list under Included Books. When you click OK, Multimedia ToolBook rebuilds the list of contexts currently available in the book.





## • **Objects in unnamed sections**

### • **Documentation additions**

If you do not explicitly assign an object on a page to a section, Multimedia ToolBook assigns it to a default section called OTHER. You can search this section as you would any other.

To change the name of the default section, edit the index settings file (.SST file) that defines the index. In the [CREATE] section, change the following line, substituting a new name for the word OTHER:

```
DEFAULT_SECTION=OTHER, YES
```



## • Overriding word separators

### • Documentation additions

By default, when Multimedia ToolBook builds an index for full-text search, it considers alphabetic characters (A-Z, a-z) part of a word, and numeric characters (0-9) if they appear in a word next to alphabetic characters. Any other characters, including spaces and punctuation, are considered white space that separates words. For example, if your application contains file names with paths (such as \APPS\MTB30), Multimedia ToolBook separates each component into separate words ("APPS" and "MTB30")

You can override Multimedia ToolBook's definition of a word separator. For example, if you want "\APPS\MTB30" to be indexed as a single word, you can specify that the backslash is part of the word.

To treat characters as part of a word instead of as separators, edit the index settings file (.SST file) that defines the index. In the [CREATE] section, add the characters to the SPECIALS setting. For example, to treat a backslash as a word character, use this command:

```
SPECIALS=\
```

If you want to add more than character, list them one after another with no spaces or other characters in between, as in this example that includes an underscore:

```
SPECIALS=/_
```

Avoid treating the following characters as word characters, because they are reserved in search expressions:

- comma (,)
- plus sign (+)
- minus sign/hyphen (-)
- equal sign (=)
- at-sign (@)

**Note** Be sure that you want every instance of the character treated as part of a word before assigning it to the SPECIALS item.



## • Overriding hotword tag values

### • Documentation additions

By default, the value of a Hotword tag is the text of the hotword itself. However, you can override the value by assigning an alternative value for that tag. This is useful to help you index consistent values for a Hotword tag, such as using only a singular form of a word or using a consistent date format.

To override the value of a hotword tag, assign its `ftsTagValue` property:

`ftsTagValue` of hotword "01 Jan 94" = "01:01:94"



