

# **The Actions Editor, HTTP Post, and Simulations in ToolBook Instructor 2004**

**Including Using ActiveX and Flash in ToolBook**

Tom L. Hall  
TCC Publishing, Inc.

All rights reserved. No part of the contents of this manual may be reproduced or transmitted in any form or by any means without the prior written permission of the author. Scripts that appear in the text may be used in individual applications.

Hotwords, Multimedia ToolBook, Neuron, OpenScript, ToolBook, ToolBook Instructor, Aspen, ToolBook Assistant, and WebBook are either trademarks or registered trademarks of click2learn.com in the United States and/or other countries. Java is a trademark of Sun Microsystems, Inc. Microsoft Windows and Windows NT are registered trademarks and Video for Windows is a trademark of Microsoft Corporation. Mac is a registered trademark of Apple Computer, Inc. UNIX is a registered trademark of UNIX Systems Laboratories. InstallShield is a registered trademark of Stirling Technologies. ActiveX and Microsoft Agents are registered trademarks of Microsoft Corporation. All other company and/or product names are trademarks or registered trademarks of their respective owners.

Screen captures of the ToolBook software shown in this manual and on the front cover are from ToolBook by click2learn.com. Screen captures of Microsoft Windows are from Microsoft Corporation.

**ISBN 0-966771-8-4**  
**Published by TCC Publishing, Inc.**  
**Box 2481 Greenville, NC 27836**

**Copyright © 2004**

# TABLE OF CONTENTS

	Page
<b>Module 1: Using the Actions Editor</b> .....	1-1
Introduction.....	1-1
The Actions Editor .....	1-2
Events in the Actions Editor.....	1-3
Inserting Actions.....	1-3
General.....	1-4
Object.....	1-4
Prompts.....	1-4
Navigation.....	1-5
Scoring.....	1-5
Media .....	1-5
Control.....	1-5
Supported Properties .....	1-6
Buttons.....	1-6
Fields.....	1-6
Combo Boxes and List Boxes .....	1-6
Draw Objects and Graphics.....	1-6
Media .....	1-7
Scoring and Tracking Options.....	1-7
Other Properties .....	1-7
Building Expressions: Functions and Operators.....	1-7
Displaying an Alert Box.....	1-8
Displaying a Query.....	1-10
Recalling a Global Variable.....	1-12
Adding a Comment .....	1-14
Displaying Popup Text.....	1-15
Displaying a Confirmation with Navigation .....	1-17
Setting Properties .....	1-19
Visible .....	1-19
Enabled .....	1-22
Text.....	1-24
Caption and Conditions.....	1-25
RGBFill.....	1-27
Checked .....	1-30
SelectedItemText.....	1-31
Left and Top.....	1-35
Using Visited Property for Page.....	1-36
Setting Layers.....	1-37
Shared Actions .....	1-38
More Use of Control Actions.....	1-40
If, Else If, and Else .....	1-40

Checking for Field Input .....	1-42
Using Step Loop.....	1-44
Setting Up a Counter .....	1-45
Customizing a Question Object .....	1-47
Building a Calculator for Conversions .....	1-49
Checking for Numerical Input: The IsNumber Function .....	1-51
Triggering Other Objects .....	1-52
Using On Property Change Event.....	1-53
Controlling Media.....	1-54
Playing Media.....	1-54
Media Complete and Reset .....	1-55
Adding a Timed Delay and Automatic Navigation .....	1-56
Stopping, Pausing, and Playing Media.....	1-57
Adding Time Markers with Universal Media Player.....	1-58
Displaying a Document .....	1-60
Native Deployment .....	1-60
DHTML Deployment—Same Location.....	1-61
DHTML Deployment—Different Location .....	1-61
User Events .....	1-62
Event Parameters .....	1-63
Using the ShiftDown Parameter .....	1-63
Using the MouseX and MouseY Parameters .....	1-64
Handling Keyboard Events.....	1-66
Arrays.....	1-67
Printing a Page.....	1-69
Scoring a Quiz .....	1-70
Capturing Quiz Answers .....	1-72
Providing a Running Score.....	1-75
Using the Action Timer.....	1-77
Displaying Time Remaining.....	1-79
Creating a Login Page.....	1-80
More Use of Shared Actions .....	1-83
Clearing Characters.....	1-83
Getting an Item from a List .....	1-87
Trimming a String.....	1-88
More Use Functions.....	1-90
Using the Round Function .....	1-90
Using the UpperCase and LowerCase Functions .....	1-91
Using the Character Function.....	1-92
Special Topics .....	1-94
Displaying Elapsed Time .....	1-94
Formatting Subtracted Numbers .....	1-97

Using JavaScript with ToolBook.....	1-98
What is JavaScript?.....	1-98
Functions.....	1-98
The JavaScript File .....	1-98
Adding JavaScript to ToolBook.....	1-99
Calling the Function.....	1-100
Summary .....	1-100
<b>Module 2: Using ActiveX in ToolBook.....</b>	<b>2-1</b>
Introduction.....	2-1
Active-X Controls.....	2-1
ActiveX Methods.....	2-2
Adding Animated GIFs using Active-X Control .....	2-2
Adding the Adobe Acrobat Control.....	2-4
Native Windows Applications .....	2-4
DHTML Application .....	2-9
Adding the Microsoft Web Browser Control.....	2-10
Introduction to Microsoft Agents.....	2-17
Microsoft Agent Requirements .....	2-18
Installing Microsoft Agent 2.0.....	2-19
Using Microsoft Agents in Native ToolBook .....	2-19
Background and Credits.....	2-19
Methods and Events .....	2-19
Adding the Microsoft Agent Control.....	2-20
Setting up the Agent Control .....	2-21
Writing Script for Animate and Speak.....	2-23
Hiding the Balloon Text.....	2-24
Speaking Text from Field.....	2-25
Reading Text from File .....	2-26
Playing a WAV Sound File .....	2-27
Setting Character Position.....	2-28
Merlin with Question Page.....	2-28
Setting a User-Defined Property to Control Agent .....	2-30
Microsoft Agents in DHTML.....	2-31
Setting Up the Book .....	2-31
Modifying JavaScript File and Index File.....	2-32
Adding the Windows Media Player Control.....	2-35
Summary .....	2-37
<b>Module 3: Intergrating Flash into ToolBook .....</b>	<b>3-1</b>
Introduction.....	3-1
What is Flash?.....	3-1
Flash in Native ToolBook .....	3-1
Using the Tool Palette to Draw Flash Control.....	3-2
Using the Universal Media Player to Play Flash.....	3-3

Flash in DHTML with ToolBook .....	3-4
Controlling Flash with Actions Editor .....	3-5
Playing/Stopping Flash with Actions Editor .....	3-5
Using extGotoFrame.....	3-7
More Use of extGotoFrame and using extReWind .....	3-8
Getting a Variable from a Flash Movie .....	3-10
Setting a Variable in a Flash Movie .....	3-11
Using Flash Media Player Objects .....	3-13
Using the FS Command .....	3-15
Summary .....	3-16

<b>Module 4: Using the HTTP Action.....</b>	<b>4-1</b>
Introduction.....	4-1
The HTTP Post Action .....	4-1
Using the CDONTS Mail Object.....	4-2
A Request Form .....	4-2
Submitting Quiz Score .....	4-4
Submitting Log File .....	4-6
Using the ASPeMail Process .....	4-10
A Simple Form Using HTTP Post and ASPeMail .....	4-12
Setting up the Form.....	4-13
Writing the ASP to Process the Form.....	4-15
Submitting Quiz Results with ASPeMail.....	4-17
Setting URL Parameters .....	4-17
Writing the ASP to Submit Results .....	4-19
A Simple ASP to Verify a User .....	4-20
ASPs to Write to Log Files on Web Server .....	4-22
Writing Information to a Single Log File .....	4-22
Writing Information to Log File for Each User.....	4-24
Writing Information to Access Database on Server .....	4-29
Storing Results of a Survey.....	4-29
Storing Quiz Results .....	4-33
Returning Information for Single User .....	4-39
Storing User Name and Password.....	4-41
Storing Name, Password, Score and Bookmark .....	4-43
Using Cookies with HTTP Post .....	4-50
Setting and Retrieving Information.....	4-51
Passing Information Between Books.....	4-52
Storing Multiple Values in a Cookie.....	4-53
Setting up a Simple LMS .....	4-56
LMS Features.....	4-56
The Database.....	4-56
The ASP Page .....	4-57
The Login Page .....	4-58
Getting Lesson Completed Information.....	4-60

Changing the Password.....	4-62
Getting the Initial User Information.....	4-64
The Main Menu Page.....	4-66
Getting User Information.....	4-67
Getting Exam Score.....	4-68
Storing Lesson Complete Information.....	4-69
Providing Access to Exam.....	4-70
Displaying Last Score.....	4-71
Setting Exam Start Date.....	4-72
Setting Answers to Questions.....	4-73
Storing Exam Score.....	4-73
Storing User Answers.....	4-74
The Exam Answer Summary Page.....	4-75
The Certificate Page.....	4-76
Storing Bookmark Information.....	4-77
Recalling Last Page Visited.....	4-78
Summary.....	4-79

<b>Module 5: Using the Simulation Editor.....</b>	<b>5-1</b>
Introduction.....	5-1
Software Simulations.....	5-1
Planning Your Simulations.....	5-2
Building the User User Interface.....	5-2
Adding the Control Objects.....	5-4
Adding the Interactive Objects.....	5-4
Creating the Simulation.....	5-5
Setting Up the Simulation.....	5-5
The Simulation Modes.....	5-6
Working with Trigger Events.....	5-7
Working with Feedback.....	5-7
Levels of Feedback.....	5-9
A Close Look at the Simulation Editor.....	5-9
Overview.....	5-9
The Simulation Steps Area.....	5-11
Properties for Simulation.....	5-12
Actions.....	5-13
Controls.....	5-13
Demonstration Playback.....	5-14
Miscellaneous.....	5-14
Properties for Simulation Dialog Box.....	5-15
General Tab.....	5-15
Controls Tab.....	5-16
Objects Tab.....	5-17
Actions Tab.....	5-18
Properties for Step.....	5-19

Actions .....	5-19
Feedback .....	5-19
Instructions.....	5-20
Miscellaneous .....	5-20
Properties for Step Dialog Box .....	5-20
General Tab.....	5-20
Feedback Tab .....	5-21
Actions Tab.....	5-22
Properties for Trigger Event (Correct Trigger).....	5-22
Properties for Trigger Event (Incorrect Trigger) .....	5-23
Feedback .....	5-23
Miscellaneous .....	5-23
Properties for Trigger Event Dialog Box.....	5-24
Trigger Events Tab.....	5-24
Feedback Tab .....	5-25
Properties for Evaluation Object .....	5-26
Feedback .....	5-26
Miscellaneous .....	5-26
Properties for Evaluation Dialog Box.....	5-26
Action Methods .....	5-27
Reset Simulation Action.....	5-28
Start Simulation Action.....	5-28
Complete Simulation Action .....	5-29
Play State Change Action.....	5-29
Start Step Action.....	5-29
Attempt Step Action.....	5-30
Complete Step Action.....	5-30
Lesson One: Building a Simple Software Simulation	
in Practice Mode.....	5-31
Building the Book.....	5-31
Setting Up User Interface for First Simulation Page ..	5-32
Creating the Control Objects.....	5-33
Adding the Interactive Object .....	5-34
Adding Simulation for First Page .....	5-34
Setting Properties for Simulation .....	5-34
Setting Properties for Step.....	5-39
Setting Properties for Trigger Event .....	5-42
Testing the Finished Simulation.....	5-44
Setting Up Second Simulation Page .....	5-44
Setting Up Second Simulation .....	5-45
Setting Up Third Page .....	5-47
Setting Up Summary Page .....	5-48
Lesson Two: Automatically Generating Information.....	5-49
Lesson Three: Exploring Feedback Options .....	5-52
Lesson Four: Demonstration Mode .....	5-54

Lesson Five: Assessment Mode.....	5-56
Lesson Six: Multiple Modes.....	5-59
Lesson Seven: A Simulation with Two Steps .....	5-62
Building the Book.....	5-62
Setting Up User Interface for First Step .....	5-63
Creating the Control Objects.....	5-64
Adding the Interactive Object for First Step .....	5-65
Adding the Simulation Editor .....	5-65
Setting Up Second Layer of User Interface .....	5-69
Setting Up Simulation Editor for Second Step .....	5-69
Lesson Eight: Using Evaluation Objects.....	5-75
Building the Book.....	5-75
Setting Up User Interface for First Simulation Page ...	5-76
Creating the Control Objects.....	5-76
Adding the Evaluation Object .....	5-77
Adding the Trigger Object .....	5-77
Adding the Simulation .....	5-77
Setting Up Second Simulation Page .....	5-82
Setting Up Second Simulation Editor.....	5-82
Setting Up Results Page.....	5-84
Lesson Nine: No Limits to Attempts .....	5-85
Lesson Ten: Demonstration Mode with Autotyping .....	5-87
Lesson Eleven: Setting Up a Login Simulation Page.....	5-88
Lesson Twelve: Levels of Feedback .....	5-90
Lesson Thirteen: Feedback for Correct Action .....	5-97
Lesson Fourteen: Building Menus .....	5-98
Lesson Fifteen: Using a Combo Box .....	5-100
Lesson Sixteen: More Evaluation Objects .....	5-104
Lesson Seventeen: How to Use the New Text Panes.....	5-107
Lesson Eighteen: Exploring Types of Trigger Events .....	5-110
Using the Double-click Trigger Event .....	5-110
Using the Right-click Trigger Event.....	5-114
Lesson Nineteen: Using a Keyboard Trigger .....	5-117
Lesson Twenty: Using a Modifier .....	5-119
Lesson Twenty One: Using a Hidden Trigger.....	5-121
Lesson Twenty Two: Using the On Play State Change Action ...	5-123
Using the Sim Autobuilder Recorder.....	5-125
Preparing to Record.....	5-125
Launching the Sim Autobuilder Recorder.....	5-126
Recording the Simulation.....	5-128
Creating the Simulation in ToolBook .....	5-130
The Raw Simulation .....	5-131
Running the Raw Simulation.....	5-133
The Simulation Editor.....	5-135
Raw Simulation to Final Simulation .....	5-138

Spicing It Up a Bit .....	5-140
Recording a Multiple Step Simulation .....	5-142
Storyboarding the New Simulation.....	5-142
Setting up the Application.....	5-142
Setting up the Sim Autobuilder .....	5-143
Recording the Steps.....	5-143
Creating the Simulation.....	5-144
Working with the New Raw Simulation .....	5-145
Refining the Simulation.....	5-149
Summary .....	5-152

<b>Appendix A: Internet Resources .....</b>	<b>A-1</b>
---	------------

<b>Appendix B: What's New in ToolBook Instructor 2004.....</b>	<b>B-1</b>
--	------------