



Annotated List: Software for WBT and CBT Training Programs

<http://www.CognitiveHorizons.com>

This is an evaluation of software programs to create computer-based (CBT) or web-based (WBT) training material. I am not examining web sites such as [Blackboard](#) and [WebCT](#) that simply provide instructors with a way to create and post curriculum to the web site. Macromedia was nice enough to compare their various learning products for me. While I did compare them to their competition below, Macromedia's [e-learning matrix](#) is very informative.

This is a living document. If you have worked in one of these programs, or another program I haven't included, and have comments or feedback, please contact me at learn@CognitiveHorizons.com and I will update this table.

Product Name	Ease of use	Cost	Platform	Delivery Method
Microsoft PowerPoint	Easy-Medium Anyone with a moderate comfort-level with computers can create a PowerPoint Presentation.	\$149-\$479 Prices vary based on package and features. Educational discount is around \$149.	PC and Mac Can be authored on either platform. Can be delivered to a computer that doesn't have the PowerPoint installed.	Desktop & web Doesn't require a plug-in for web delivery.
Educational Quality				
	Grade: D Not compliant with AICC standards. No testing or scoring ability. Cannot interface with LMS database.			

Product Name	Ease of use	Cost	Platform	Delivery Method
<p>Macromedia Dreamweaver</p> <p>or</p> <p>Macromedia Dreamweaver UltraDev</p>	<p>Medium-Difficult</p> <p>Training may be necessary to create a training program with Dreamweaver. UltraDev requires a solid knowledge of databases.</p>	<p>e-Learning Studio- Authorware/Flash/ Dreamweaver \$2999 (retail version)</p> <p>Dreamweaver \$299 (retail version)</p> <p>Dreamweaver/Fireworks \$149 (academic version)</p> <p>Web Design Studio- Dreamweaver/ Fireworks/ Flash/Freehand \$239 (academic version)</p>	<p>PC and Mac</p>	<p>Web</p> <p>Dreamweaver and UltraDev do not require plug-ins.</p>
Educational Quality				
	<p>Dreamweaver: Grade: C+</p> <p>Dreamweaver Ultra/Dev Grade: B+</p> <p>In and of itself, Dreamweaver is not an effective educational tool. However several extensions have been created for Dreamweaver that make it better for simple educational purposes.</p> <p>Isn't AICC compliant.</p>			

Product Name	Ease of use	Cost	Platform	Delivery Method
Macromedia Flash	Difficult Coding requires expert knowledge.	e-Learning Studio- Authorware/Flash/ Dreamweaver \$2999 (retail version) Flash \$399 (retail version) Web Design Studio- Dreamweaver/ Fireworks/ Flash/Freehand \$239 (academic version) Flash/Freehand \$139 (academic version) Flash \$99 (academic version)	Author on either a PC or Mac. Deliver on either platform.	Desktop or web (primarily web) Web delivery requires the Flash plug-in. It is a very common plug-in, but there are still many browsers that either don't have the latest plug-in.
Educational Quality				
	<p>Grade: C-</p> <p>While Flash has some great features and does have some extensions that make it a better educational tool, it does have a fairly high learning curve. Just learning the basics of the program will probably require training and the coding (necessary for any of the extensions and scoring) require a knowledge of javaScripting.</p>			

Product Name	Ease of use	Cost	Platform	Delivery Method
Macromedia Director	<p>Medium- Difficult</p> <p>Simple coding can be done with the behavior library. More complex coding requires expert knowledge.</p>	<p>Director Shockwave Studio \$1199 (retail version)</p> <p>Director Shockwave Studio (includes Fireworks, RealMedia support and Multi-user Server enabling) \$659 (academic version)</p> <p>Director Shockwave \$329 (academic version)</p>	<p>Author on the PC or Mac.</p> <p>For desktop delivery, you must have the program for the platform you are developing for. This may require purchasing both platforms.</p>	<p>Desktop or web</p> <p>The desktop version can be packaged to install any extras (which may require a programmer to create the install).</p> <p>For web delivery, the shockwave plug-in is required.</p>

Educational Quality

Grade: B-

The learning curve makes this a program that the average user cannot pick up and begin to develop a professional learning tool.

Director has the capabilities to create powerful interactive gaming and training programs. However, for an effective project, you must have a highly trained programmer working with your team.

Product Name	Ease of use	Cost	Platform	Delivery Method
Macromedia Authorware	<p>Medium- Difficult</p> <p>Simple coding can be done with the behavior library. More complex coding requires expert knowledge.</p>	<p>e-Learning Studio- Authorware/Flash/ Dreamweaver \$2999 (retail version)</p> <p>Authorware \$2699 (retail version)</p> <p>e-Learning Studio- Authorware/Flash/ Dreamweaver \$479 (retail version)</p>	<p>Authoring on PC only.</p> <p>Can be delivered to either a PC or Macintosh system.</p>	<p>Desktop or web</p> <p>Can be packaged for the Desktop without the need for a programmer.</p> <p>For web delivery, a plug-in is needed.</p>
Educational Quality				
	<p>Grade: A</p> <p>Authorware is a direct competitor with Toolbook. They are considered the software standard for creating learning curriculum.</p> <p>I prefer Authorware because it works so well with Fireworks (image editing) Flash (animation) and Director (animation and shockwave). Portions of a training piece created in these other programs can be easily integrated with Authorware because they are all produced by Macromedia.</p> <p>It is AICC and SCORM compliant and works well with a variety of LMS systems.</p>			

Product Name	Ease of use	Cost	Platform	Delivery Method
Click2Learn Toolbook Instructor	Medium- Difficult	\$2495 (retail version)	Authoring on PC only.	Desktop or web
Educational Quality				
	<p>Grade: A-</p> <p>Toolbook is a direct competitor with Authorware. They are considered the software standard for creating learning curriculum.</p> <p>It is AICC and SCORM compliant and works well with a variety of LMS systems.</p>			
Product Name	Ease of use	Cost	Platform	Delivery Method
Click2Learn Toolbook Assistant	Medium	\$1495 (retail version)	Authoring on PC only.	Desktop or web
Educational Quality				
	<p>Grade: B+</p> <p>Assistant is missing the ability for Custom Content Behaviors and Scripting found in the Instructor version.</p>			

Product Name	Ease of use	Cost	Platform	Delivery Method
HyperStudio	Easy	Teacher's edition—comes with two licenses. \$199 (academic version) Student edition \$69.95 (academic version)	Authoring on PC and Mac. Delivery on PC and Mac.	Desktop or web Web delivery requires a plug-in.
Educational Quality				
	<p>Grade: D</p> <p>This program may be fine for a K-12 classroom but is inappropriate for developing professional learning programs. Not compliant with AICC standards. No testing or scoring ability. Cannot interface with LMS database.</p>			
References, Reviews & Web Sites:				
<p>About.com's information about training software programs: http://distancelearn.about.com/library/blpages/blreview-tools.htm?terms=authorware</p> <hr/> <p>Brown, B. (2000). <u>Web-based Training</u> [on-line]. Available: http://ericacve.org/docgen.asp?tbl=digests&ID=103</p> <p>Kasowitz, A. (1998). <u>Tools for Automating Instructional Design</u> [on-line]. Available: http://www.ed.gov/databases/ERIC_Digests/ed420304.html: Dated, but gives a foundation to see how far we've come (IconAuthor is no longer made and Toolbook is now owned by Click2Learn).</p> <p>Reed, D. S., & McNergney, R. F. (2000). <u>Evaluating Technology-Based Curriculum Materials</u> [on-line]. Available: http://www.ed.gov/databases/ERIC_Digests/ed449118.html</p>				

Microsoft: <http://www.microsoft.com>

Saving PowerPoint Presentations from the Web:

<http://maxweber.hunter.cuny.edu/~mkuechle/pp-webserve.htm>

Saving a PowerPoint 97 Presentation as HTML:

<http://www.presentersuniversity.com/courses/Webppt/web97.htm>

PowerPoint to the Web: <http://cit.information.unl.edu/tips/Webpage/>

*PowerPoint 2000 to the Web saves the pages using frames. Not all browsers support frames so there is some incompatibility here. Netscape doesn't work too well with most outputs of PPT2000 to HTML. Through trial and error, we have figured out the choices you have, written brief instructions and give an example of how the site will look from that particular choice. General instructions for creating HTML pages from PowerPoint 2000 can be found in the Land Grant Training Alliance PowerPoint 2000 Lesson 5 (<http://www.lgta.org/ppt2000/ppt2000.15.contents.htm>)

Macromedia Exchange for Dreamweaver: <http://www.macromedia.com/exchange/dreamweaver/>

Search for the extension by name or select "Learning" from the drop down menu

Authorware extension: Inserts/inspects an Authorware Web Player object.

CourseBuilder extension: quickly and easily creates Web-based learning content.

Learning Site Command Extension: Creates instructional Web site using built-in navigation, tracking features and lesson administration and configuration.

Manifest Maker Extension: Creates an IMS Course Packaging Manifest that complies with IMS Global Consortium, Microsoft LRN and ADL SCORM specifications.

SCORM RTI Minimal Code Extension: Inserts JavaScript code & HTML attributes for minimal compliance with ADL SCORM specifications for learning content.

Macromedia Exchange for Flash: <http://www.macromedia.com/exchange/flash/>

Search for the extension by name or select "Learning" from the drop down menu

FS SCORM Extension: This publishing template allows developers to call ADL SCORM 'LMS' functions by

using fscommands within Flash movies. LMS functions allow developers of learning content to communicate with a student tracking database using a standard API.

Flash Minimal SCORM RTI Extension: These two publishing templates provide minimal ADL SCORM RTI (Run Time Interface) compliance for Flash movies.

- The publishing template 'ADL RTI Minimum' does the bare minimum. It finds the API object, calls initialize and finish, but does not pass any data.
- The publishing template 'ADL Minimum +completion' adds a single call to mark the lesson/AU/SCO as complete when the page is loaded.

Learning Extensions Extension: Multiple files to create instructional courses in Flash 5 and track the results.

Macromedia Director Xtra Extensions: <http://www.macromedia.com/software/xtras/director/>

Macromedia Authorware Xtra Extensions: <http://www.macromedia.com/software/xtras/authorware/>

Click2Learn: Toolbook Instructor: http://home.click2learn.com/en/toolbook/toolbook_instructor.asp

"ToolBook Instructor produces effective 100%-Web content that is interoperable through standards, such as the emerging standards created and supported in SCORM, AICC, IMS, ADL, and IEEE. ToolBook Instructor content can be launched, bookmarked, and tracked using SCORM or AICC."

Click2Learn:Toolbook Assistant: http://home.click2learn.com/en/toolbook/toolbook_assistant.asp

"ToolBook Assistant is a complete Desktop-based content authoring system that allows people with varying levels of authoring skills to create and distribute e-Learning content without programming."

Hyperstudio: <http://www.hyperstudio.com/>

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