



Visual software tools for multimedia authoring

Timothy Arndt*, Ethan Katz

Department of Computer and Information Sciences, Cleveland State University, 2121 Euclid Avenue, Cleveland, OH 44115-2124, USA

ARTICLE INFO

Article history:

Received 17 December 2009

Accepted 29 December 2009

Keywords:

Multimedia authoring

Software tools

Reviews

ABSTRACT

Multimedia authoring tools were originally developed more than 20 years ago to help non-programmers construct multimedia presentations, especially in the area of primary education. Since then, both the application scope and the target audience have broadened. In this paper, we review several of the more popular visual tools for multimedia authoring.

© 2010 Elsevier Ltd. All rights reserved.

1. Introduction

Multimedia authoring tools were originally developed to help non-programmers construct multimedia presentations, especially in the area of primary education. A typical early tool was Apple Computer's HyperCard [1]. Released in 1988 with version 6 of the Macintosh operating system, HyperCard was a hypermedia system, allowing hyperlinks between text, images, audio clips, and video clips. A similar hypermedia system, NoteCards, was developed at Xerox PARC [2].

Today, authoring tools are available for both programmers and non-programmers. Programmer-oriented tools allow the author to develop with the use of a scripting language; non-programmer-oriented tools allow the author to develop with the use of a graphical user interface. In either case, the authoring tool provides a way to specify the content, layout, and temporal flow of a multimedia presentation [3].

Multimedia authoring continues to be a fertile topic for research. Recent work includes papers on adapting multimedia documents for a wide range of computing platforms, from PCs to smart mobile phones [4,5], as well as various other aspects of multimedia authoring [6–15].

In the rest of this paper, we survey a representative sample of commercially available visual multimedia authoring tools. By “visual,” we mean tools that offer a graphical user interface. Throughout the discussion, we use “document,” “piece,” and “presentation” as synonyms for the end product of an authoring tool. We have concentrated on the most widely known authoring tools, examining the latest available versions.

2. Multimedia authoring tools

In this section, we will survey several representative visual multimedia authoring tools, paying particular attention to the user interfaces. Tables 1 and 2 at the end of this section provide a comparison of the various products.

2.1. Authorware

Authorware [16] is a long-established tool for creating e-learning applications. It was originally developed by Macromedia and is now available from Adobe, which purchased Macromedia in 2005. Adobe has announced that it will no longer update Authorware, as it intends to move Authorware users to the Flash platform. However, Authorware was still for sale on Adobe's Web site as of November 2009.

* Corresponding author. Tel.: +1 216 687 4779; fax: +1 216 687 5448.
E-mail address: arndt@grail.cba.csuohio.edu (T. Arndt).

Table 1

Manufacturer	Authorware Adobe	Director Adobe	iShell Tribal Media
Version	7	11	4.5
Platforms	Windows	Windows, Macintosh	Windows, Macintosh
Cost	\$3,000	\$1000	\$500
Media types imported: movie	Director, AVI, ASK, ASX, WMV, IVF, MOV, FLC/FLI/CEL, MPEG, DIP/BMP	AVI, BMP, DVD, Flash, MPEG-1, MPEG-4, Quicktime, Real Media, RIFF, WAV, WMA, WMV	Apple Video, Cinepak, DV Pro NTSC, DVC Pro NTSC, DV PAL, DVC Pro PAL, H.261, H.263, H.264, Microsoft OLE, Microsoft Video 1, Motion JPEG A, Motion JPEG B, MPEG-4 (Part 2), Sorenson Video 2, Sorenson Video 3
Media types imported: sound	AIFF, MP3, PCM, SWA, VOX, WAVE	AIFF, AU, MP3, Quicktime, SWA, WAV, WMA	AAC, ALaw 2:1, AMR Narrowband, Apple Lossless Encoder, IMA 4:1, MACE3:1, MACE 6:1, MS ADPCM, QDesign Music 2, QCELP, ULaw 2:1
Media types imported: image	BMP, EMF, GIF, JPEG, LRG, PICT, PNG, PSD/PS3, TIFF, TGA, WMF	GIF, JPEG, PICT	Apple BMP, Apple Pixlet, JPEG 2000, Photo JPEG, Planar RGB, PNG, TGA, TIFF
Export formats	Stand-alone application, file playable by free Authorware Web Player	File playable by Shockwave player, digital movie in Quicktime or AVI format, stand-alone application	Stand-alone application requiring Quicktime Player
Help: built-in	Extensive	Extensive	None (links to online help)
Help: online	User's guide, searchable archive of technical notes and articles, examples, mailing list, links to related web sites, forum, list of books published by Adobe and others	Duplicate of build-in help, searchable archive of technical notes and articles, forum	Introductory movie, bookstore, user's guide, examples with instructions (tutorials), Wiki with gaps, forum, examples
Wizards/templates	Wizard, quiz question templates	None	None
Views	(1) Flowchart of entire presentation (2) Layout of specific page	(1) List of media elements (2) Layout of the movie screen (3) Timeline of the media elements	(1) Outline of entire presentation (2) Outline of specific page (3) Timeline of specific media element

Table 2

Manufacturer	Mediaworks Interactive Solutions	Toolbook Sumtotal Systems	Studio Anark
Version	6.2	10	4
Platforms	Windows, Macintosh	Windows	Windows
Cost	\$80	\$2800	N/A
Media types imported: movie	MOV, AVI, MPEG-1, MPEG-2, MPEG-4, Sprite, SWF, animated GIF, MP3, Qualcomm, QDesign, PICS, animated GIF	AVI, MOV, MPG, streaming video by Microsoft, RealVideo, or Quicktime; Flash	MOV, AVI, MPG, ASF, WMV, M1V, MPE
Media types imported: sound	MIDI, CD tracks, SND, AIFF, WAV, Resource	AA, AIF, AIFC, AIFF, MID, MIDI, MP3, MP3 Playlist, RMI, WAV, streaming audio by Microsoft, RealAudio, or Quicktime	OGG, WAV, MP3, AIF
Media types imported: image	BMP, PICT, JPEG, GIF, TIFF, Photoshop	BMP, CDR, CH3, DIB, DRW, DXF, EPS, GIF, JPG, PCD, PCT, PCX, PIC, PNG, TGA, TIF, WMF	PSD, PNG, TGA, BMP, JPG
Export formats	Quicktime, AVI, DV, MPEG-4, 3GP, file playable by free MediaWorks player	Stand-alone application, HTML	Stand-alone application, file playable by free Anark Web plug-in, video (AVI, DV), Windows screensaver
Help: built-in	Moderate	Extensive	Extensive
Help: online	Many examples with instructions (tutorials), introductory guide, reference manual, examples	User's guides, movie tutorials, technical articles for developers, blog, examples	Forum, tutorial movies, user's guide
Wizards/templates	None	Wizard, templates, quiz question templates	None
Views	(1) All scenes, represented by thumbnail images (2) Layout of specific scene (3) Timeline of specific scene	(1) Outline of all pages (2) Layout of specific page	(1) Layout of scene (2) Timeline of scene

Download English Version:

<https://daneshyari.com/en/article/523636>

Download Persian Version:

<https://daneshyari.com/article/523636>

[Daneshyari.com](https://daneshyari.com)