

Martha Singer
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File Extension(s): .mov

File Format Name: QuickTime is a multimedia technology developed by Apple that plays “.mov”. QuickTime is a container format that contains various types of data (audio, video, text, images, Macromedia Flash, etc), each in a standardized codec. The container mixes and synchronizes the data together. Video formats supported: anything through QuickTime codec manager. Audio formats supported: anything through Sound Manager or CoreAudio.

Date Introduced: (year): QuickTime was released in 1992. Uncertain when the “.mov” file extension became established. According to Apple technical support (October 5, 2005), as far back as seven years ago, “.mov” file format existed. Prior to that is still uncertain.

Dates in Use: (years): 1992 to present

Variations:

Many versions of QuickTime over the years for Mac and Windows. The latest is QuickTime 7 for Mac OSX.

See <http://en.wikipedia.org/wiki/Quicktime#History> for the history of Quicktime.

Developers: Apple

Open Source/Proprietary: QuickTime is royalty-free, but proprietary. The file extension, “.mov”, is specific to QuickTime. It has an open architecture so that other companies can develop plug-ins. Examples of plug-ins: iPIX allows 360⁰ views of architecture for real estate companies; Alias’s FBX allows for 3D viewing and interaction of artists working in this medium.

Associated Operating System: The operating system for QuickTime can be Mac or Windows.

Associated Application(s): “.mov” files are played on QuickTime only.

Associated Media: (storage): none

Compression: Yes. Once saved in “.mov” format, the viewable file is compressed.

Primary Usage: Edit, capture, archive, distribute, play back video, audio, texts, effects and animation.

Risks:

“.mov” is proprietary, functioning only in QuickTime. Being proprietary, it is vulnerable to

market demands. At present, QuickTime is very popular and will not be discontinued soon.

According to Mac information on QuickTime, the company tries to “ensure backward compatibility....Movies created with QuickTime 1 still play today in QuickTime 7.” There is no guarantee that this trend will continue in the future if QuickTime is no longer popular.

If migrated into another format (like MPEG), uncertain if there is a loss of quality in new format. Several commercial programs can convert “.mov” files into other formats.

Conservation Actions:

Prior to acquisition, consider the long-term preservation issues and decide if the files can be maintained.

Consider at some point, converting to a file format that is issued by an international standard body (such as MPEG formats). Can this file be migrated across successive generations and still remain close to the original? If the format by the standard body is not appropriate, choose a format that will be present for a long time. Not only must the file format be read, but also the metadata (if available) must be viewable by current technology.

Implement refreshment cycles into system of collection. Develop a timetable to evaluate holdings in collection and think about conversion of the files.

Store a master copy, a duplicate copy and a reference copy, not all in the same place. Choose more than one vendor of a media. There may be a flaw in the vendor’s batch.

Other Resources:

Digital Video Archives: Managing Through Metadata (2000) by Howard Wactlar and Michael Christel at Carnegie Mellon University. Accessed on Oct. 5, 2005 at: <http://www.clir.org/pubs/reports/pub106/video.html>

Internet Resources: Nonprint media preservation: A guide to resources on the Web by Katherine Pennavaria in C&RL News (Sept. 2003). Accessed on October 5, 2005 at: <http://www.ala.org/ala/acrl/acrlpubs/crlnews/backissues2003/september8/nonprintmedia.htm>

FILE FORMATS

File Format Name: WordStar (WS) made by MicroPro.

File Extension(s):

DOS WordStar files by default have no extension; some users adopted their own conventions, such as the letters WS followed by the version number (for example, WS3). Backup files were automatically saved as BAKs.

- WordStar for Windows files use the extension WSD
- WordStar for Windows templates use the extension WST
- WordStar for Windows macros use the extension WMC
- WordStar for Windows temporary files use the extension !WS
- WordStar 2000 for DOS and UNIX PC don't have a fixed extension but DOC was common

Date Introduced: (year): 1978

Dates in Use: (years): 1978-1999. There were several versions of WS and by the end of the 1980's, the use was in decline. There are emulators for Word, so that one can feel like they are working in WS, when in fact they are in Word.

Variations: Please note that clones of WS are not mentioned.

WS made various programs for different operating systems.

WS 1.0 for CP/M

WS 2.x for CP/M

WS 3.x for CP/M & MS-DOS

WS 2000 Release 1 for MS-DOS

WS 2000 1.01 for AT&T and UNIX

WS Express and WS 1512 for MS-DOS

WS 2000 Release 2 for MS-DOS

WS 4.x for CP/M and MS-DOS

WS 2000 plus Release 3 for MS-DOS

WS 5.x for MS-DOS

WS 6.0 for MS-DOS

WS Legacy for Windows 3.0

WS for Windows 1.0 and 1.1 for Windows 3.0

WS 7.0c TextBook edition for MS-DOS

WS 7.0d for MS-DOS

WS for Windows 1.5 for Windows 3.1

WS for Windows 2.0 for Windows 3.1

WS 7.0d for MS-DOS

Developers: Seymour Rubinstein owned MicroPro. John Robbins Barnaby (version 0.89) originally wrote the program and then Jim Fox helped finish it and wrote the installer for WordStar version 1 for CP/M. The company re-named itself in 1989 to WordStar International. In 1994, the company merged with two other companies and

became Softkey International. Also, Corel Corporation retained the rights for WS for Windows code while Softkey International also had the right independently of Corel. Xoom, a start up company, bought the rights from Corel in 1997. In 1996 SoftKey International changes its name to The Learning Company which for a while in 1998 associates with Mattel and then in late 2000, is bought by Gores Technology. In the end, 2002, an Irish company named Riverdeep purchases The Learning Company. Trio Consulting in 2002 states that it has the rights for WS up to version 4.0 for both MS-DOS and CP/M.

Open Source/Proprietary: Proprietary

Associated Operating System: CP/M, MS-DOS, AT&T, Unix, Windows 3.0 and 3.1

Associated Application(s): WS is an application but had add-ons for mass mailings (MailMerge) or for spell checking (SpellStar).

Associated Media: (storage): None

Compression: No information on this topic could be found.

Primary Usage: WordStar was a word processor application that was written for text only display devices. People preferred WS because the focus is on the text and there is less need of a mouse, formatting possibilities, etc. The use of this program rapidly declined when WordPerfect became the preferred word processing application.

Risks: There are several versions of this program for various operating systems (many no longer used). Although there are websites to support the use of WordStar, the conversion of the earlier WS programs are dependent on earlier operating systems or earlier versions of Word (the present popular word processing application). There may be some loss to the formatting during the conversion as well. Many of those early WS files may no longer be viewed or read.

There are other issues as well. To mention just a couple: To convert, one needs to have the extension names in ws3, ws4 to reflect which version of WS they are in. Microsoft used to have a WS import converter in the early 2000s, but no longer does. If there is a problem with an earlier version of this application, the version is no longer available and probably difficult to find, even on the support sites for WS.

Conservation Actions:

Actions depend on the goal and budget of the project. If the goal is to obtain information within the WS files, convert the WS files into an appropriate format.

Question: Is it worth opening the files and then scanning them into an image format like .pdf or something considered more "archival" so that the information remains?

Periodically review files in collection to be sure that they are converted to formats that are available and widely accepted by the preservation communities and can be

supported.

Invest /Hire someone to work on conversion of the files from WordStar to a modern readable format or create an emulation program to read the file. This may be an impossible task, but not known until tried. This is also an expensive option and one must weigh the cost (is it worth it to the collection?).

Sources for help:

<http://www.wordstar.org/forums/>

http://wordstar2.com/WordStar_Users/

Resources:

Wikipedia at: <http://en.wikipedia.org/wiki/Wordstar>.

Wordstar.org at: <http://www.wordstar.org>.

WordStar: A Writer's Word Processor by Robert Sawyer (1996) at: [http://wordstar2.com/](http://wordstar2.com/WordStar_Users/modules.php?name=News&file=article&sid=5)

[WordStar_Users/modules.php?name=News&file=article&sid=5](http://wordstar2.com/WordStar_Users/modules.php?name=News&file=categories&op=newindex&catid=2)

[http://wordstar2.com/WordStar_Users/modules.php?](http://wordstar2.com/WordStar_Users/modules.php?name=News&file=categories&op=newindex&catid=2)

[name=News&file=categories&op=newindex&catid=2.](http://wordstar2.com/WordStar_Users/modules.php?name=News&file=categories&op=newindex&catid=2)