Director 4.0 for Windows Release Notes

INTRODUCTION

This file contains late-breaking news about Director 4.0 for Windows including:

- -- Made with Macromedia artwork

- -- Configuration recommendations for memory, video cards and sound cards

- -- Color depth considerations

- -- Considerations when authoring cross-platform titles

- -- Managing sound, including supported sound formats

- -- Movie in a Window (MIAW) information, including supported window types

- -- Miscellaneous information:
    - -- Rules to follow when using compressed BMP and DIB files
    - -- Several custom menu attributes not supported in Director for Windows
    - -- How to use the hidden menu bar that is available when the Director for Windows stage fills the screen.
    - -- XOBJDEV Directory contents

- -- How to get more information and up-to-the-minute news from:
    - -- MacroFacts fax server
    - -- Online sources

MADE WITH MACROMEDIA TRADEMARK ARTWORK

The artwork for the Made with Macromedia logo is contained in the MWMLOGOS directory. These files are to be used in accordance with the Made with Macromedia Logo Usage Guidelines that are part of the Macromedia Run-time Distribution Agreement, which is required if you plan to distribute any Director titles commercially. Information on the Made with Macromedia program and copies of the agreement are contained in this package. You may also call Developer Relations at Macromedia to ask for more information about this program.

MWMLOGO.EPS is an EPS file to use for the Made with Macromedia logo in printed material such as packaging.

MWMCAST.DIR contains castmember versions of the logo for use within Director productions.

MWM1BIT.TIF is a 1-bit version of the logo for use ONLY in 1-bit and 4-bit Director productions.

CONFIGURATION RECOMMENDATIONS

Memory

Authoring requires at least 8Mb of real memory (16 Mb recommended).

Projectors require at least 4Mb of real memory and at least a 2Mb swap file. A larger swap file will improve projector performance for many titles. More information may be obtained from MacroFacts technical notes (see below).

Video Cards

Director requires video software drivers and hardware that fully support Windows 3.1 standards. The two lists below show video systems that have been tested and found to be compatible with Director authoring and playback. Installing the latest available video ROM and software is generally recommended. Contact the video card manufacturer for information.

The following cards have been tested and give good results for authoring and projectors:

Video card	Bus Type	DRIVER Date	Rev	Notes
ATI Graphics Wonder	VLB	3/19/93	2.3	
ATI Graphics Xpression	VLB	6/13/94	1.1	Note 1
Compaq QVision 1024/I	ISA	1/18/94	7.40	
Diamond Viper	PCI	9/27/93	3.01	Recommended
Diamond Viper	VLB	9/17/93	2.01	
Genoa Windows VGA 24	VLB	8/8/93	1.7	
Headland Video 7 RAM II VGA	ISA	5/15/92	3.10	
Hercules Graphite Pro	VLB	12/29/93	2.21	Note 2
IBM XGA-2	MCA	11/12/93	2.11	Note 3
Number Nine 9GXE64	PCI	6/22/94	1.19.04	Recommended
Orchid Fahrenheit 1280	ISA	8/10/92	3.0	
RasterOps PaintBoard PC	ISA	3/25/93	3.10	Note 2
Spider Black Widow	VLB	1/20/94		Recommended
Trident 8900C	ISA	9/23/92	3.10	
Trident 9000C	ISA	7/8/93	VC4.5(WC1.6)	Note 2

Note 1: Set DeviceBitmaps=OFF in the Windows SYSTEM.INI file [MACH] section after card
       software installation if using this driver version.
Note 2: Use in 256 color mode only.
Note 3: This card does not draw extremely wide arcs properly.

The following video cards have been tested and give good results for projectors:

Video card	Bus Type	DRIVER Date	Rev	Notes
Actix ProStar VL	VLB	8/18/93	1.42	Note 1
ATI Graphics Ultra	ISA	3/19/93	2.3	
ATI Graphics Ultra Plus	ISA	4/25/94	2.3	
ATI Graphics Ultra Pro	VLB	4/25/94	2.3	
ATI Graphics Ultra Pro	ISA	4/25/94	2.3	
Blackship Color DesignerA3	VLB	7/8/93	1.32	
Diamond Speed Star Pro	ISA	2/17/94	1.08	
Diamond Speed Star VGA	ISA	4/14/92		

Diamond Stealth 24	VLB	6/3/94	3.00	
Diamond Stealth Pro	VLB	10/6/93		
ELSA Winner2000 Pro	PCI	6/23/94	1.22	
Hercules Dynamite Pro	ISA	12/1/93	2.10	Note 2
Hercules Dynamite Pro	VLB	12/1/93	3.00	
Hercules Graphite Power	ISA	4/6/94	2.10	
IBM XGA Display	MCA	11/12/93	2.11	Note 3
Matrox MGA Power Graphics	PCI	3/28/93	1.42	
Media Vision ProGraphics 1280	VLB	9/15/93	1.01	
Media Vision ProGraphics 1024	VLB	4/15/94	1.5	
Mitac MVA-CL5428-1MB	VLB	3/15/94	V1.43	
Number Nine 9GXe Level 10	ISA	2/9/94	V3.11	Note 4
Number Nine 9GXe Level 11	VLB	2/9/94	3.10.061	Notes 4, 5
Number Nine 9GXe Level 14	VLB	4/7/94	3.15	Note 4
Number Nine 9GXE64	VLB	6/22/94	1.19.04	Recommended
Orchid Celsius	VLB	10/1/93	1.32	Recommended
Orchid Fahrenheit 1280 Plus	VLB	3/1/94	rel 7	Note 6
Orchid Fahrenheit VA	VLB	4/29/93	5.01	
Orchid Kelvin 64	PCI	3/14/94	1.1	
Orchid Kelvin 64	VLB	2/23/94	1.21	
Orchid ProDesigner IIS	ISA	3/1/92	2.0	
Paradise WD90c33	VLB	6/28/93	1.2	
Standard 1Mb-24X	ISA	3/19/93	1.30	
STB Horizon VL Pro	VLB	6/29/93	1.3	
STB Lightspeed	PCI	12/1/93	1.1	
STB Pegasus	VLB	11/29/93	1.3	
TrueVision Bravado 8	ISA	1/15/92		

Note 1: Driver version 1.53 sometimes hangs when playing certain Director transitions. Driver version 1.42 is recommended.

Note 2: Does not always properly display QuickTime digital video in 16 bit (thousands) and 24 bit (millions) color modes

Note 3: Does not draw extremely wide arcs properly.

Note 4: There is sometimes sound break-up or distortion during complex transitions using most sound cards.

Note 5: The cursor sometimes disappears when using a large virtual desktop.

Note 6: Video snow appears during some palette transitions

Sound Cards

Director includes sound mixing and playback effects. Pleasing sound effects and sound start-up response time depends on the capabilities of the card and the performance of the system. The following sound cards have been tested and are compatible with Director:

Sound Card	Notes and comments
Compaq Business Audio	
Creative Labs SoundBlaster	
Creative Labs SoundBlaster Pro	
Creative Labs SoundBlaster 16	
Creative Labs SoundBlaster AWE32	
Gateway 2000	
IBM M-Audio	Driver version 1.3 - Note 1
MediaVision ProAudio Spectrum	
MediaVision ProAudio Spectrum 16	

MediaVision ProAudio Spectrum 16 Pro
MicroSoft SoundSystem Version 1
MicroSoft SoundSystem Version 2
Orchid SoundWave 32
Reveal Forte 16
Roland Rap-10

> Note 1: IBM computers that have the M-Audio sound card should use driver version 1.3 or higher for best results. Older versions of this driver don't play some sounds in Director or AVI movies. The version 1.3 driver does not pass the 16-bit sounds test for Director. Testing revealed that 8 bit sounds are corrupted when played after a 16-bit sound. At the time these release notes were written, version 1.3 (dated 1/10/94) was the most recent driver available from IBM.

Operating Systems

Director for Windows has been extensively tested on Windows 3.1 and Windows 3.1.1.

COLOR DEPTH CONSIDERATIONS

Director for Windows works best at an 8-bit color depth. Cast members of higher color depths will be dithered to 8-bit when played back on an 8-bit computer. For best playback in higher color depths (16 and 24 bit), author for 8-bit. For best playback in 4-bit VGA, author using the VGA colors in the Sys-Win palette. Director always imports graphics to the current bit depth regardless of the graphics' original bit depth. You will be warned about palette mismatches before the graphics are imported. Make sure the correct palette is active before importing.

To check your current color depth setting use the control panel application provided with your video driver or use the Windows Setup program in the Main program group.

CROSS-PLATFORM AUTHORING CONSIDERATIONS

Tips and Tricks in your Director documentation set contains important cross-platform authoring suggestions. Additional considerations include:

Sound

Use AIFF sounds or sounds imported as cast members at 11.025 kHz, 22.050 kHz, or 44.100 kHz sample rates. Sounds played at the same time must have the same sample rate.

Mouse Coordinates

Mouse coordinates are monitor coordinates under Windows and stage coordinates on the Macintosh.
When authoring movies for both platforms, you can obtain consistent values by adding the stageTop to the mouseV and stageLeft to the mouseH properties.

Carriage Return/Line Feed Characters

The file I/O XOBJECT does not map CR to CR/LF when writing text to a file. If you need to create a text file with a CR/LF at each line ending, use a Lingo expression similar to the following before you write each line out to the file:

>   put theText & return & numToChar(10) into TheLine

File Extensions in Cross-Platform Movies

Director dialog boxes display files which have a filename extension matching the recognized DOS extensions.

Use these extensions for linked files in cross platform movies.

```
Director Movie  => ".DIR" (or ".DXR" for a protected movie)
Bitmap          => ".PIC" or ".PCT"
Sound           => ".AIF"
Font Map        => ".TXT"
QuickTime       => ".MOV"
```

This same list is also used when importing and playing back linked cast members.

MANAGING SOUND

Specifying Sound Parameters

Director for Windows, and projectors created by Director for Windows, automatically detect which type of sound card is installed in the machine, and adjust various settings to get the best sound playback. Under certain circumstances you may need to supply values for these settings yourself. For further information check the MacroFacts technical note on sound settings.

Using Different Sounds

Director can play up to four simultaneous sounds: score sound channels 1 and 2, and two more channels accessible via sound playFile. The actual number of sounds that can be played on a given machine depends on the speed of the machine. For example, two channels of 8-bit 22kHz stereo sound work fine on a 386/25. Both mono and stereo sounds are supported. Stereo sounds can be played on mono sound cards and Director will average the two channels.

Linked .WAV files can only be played back on Director 4.0 for Windows. Linked .AIF files can be played back on either Macintosh or Windows.

When authoring a cross-platform movie on the Macintosh, remember that AIFF sound files must have the extension .AIF for the sound to play in Director for Windows.

All non-linked sounds can be played back on the Macintosh or Windows.

Sound Formats

Director can play 8 and 16 bit sounds in any of the standard Windows sample rates: 11.025 kHz,

22.050kHz and 44.100kHz. 16-bit sounds can only be played back on 16-bit sound cards. 44.100kHz may not be supported on all 8-bit sound cards.

Frequencies other than these (e.g. 32kHz) are rounded to one of the standard rates. The resulting rounded off sound sounds differently than it did at its original rate. Rounding off is necessary because many sound cards do not support non-standard rate.

Sounds in different formats - that is, different bit size or different sample rate - cannot be played simultaneously. You have to stop all sound before starting a sound in a different format. Resampling of sounds indifferent formats with a sound editing program may be required.

Sound and Digital Video

If multiple digital movies are played at the same time only one will be heard. This applies to QuickTime, Video for Windows and Director sound playback.

Sound Delays

Director for Windows can have noticeable delays when:
>   -- "the volume of sound n" is changed
>   -- sound fade-in or fade-out is performed
>   -- a sound is started when another sound is already playing

The delay depends on the size of the sound play buffers, which in turn depends on the sound card in use. For example, the MediaVision ProAudioSpectrum 16 will have a delay of 1/4 second to 1/2 second while the SoundBlaster 16 will have a delay of about 3/4 second.

Using Sounds in Movies Created in Earlier Versions of Director

If you are using a Director movie that was originally created on the Macintosh in Director 3.1, verify that the "Loop" checkbox setting for the sounds in the Cast Member Information dialog is set the way you want. Sounds from these movies have the Loop checkbox selected by default.

MOVIE IN A WINDOW (MIAW) INFORMATION

Palettes

The main movie controls the current palette. Palette channel settings in MIAWs are ignored, as are puppetPalette commands. However, you can use the tell command from within an MIAW to instruct the main movie to change the palette.

Transitions

The main movie controls transitions. MIAWs cannot display transitions, as transitions are not part of the regular screen buffer. MIAWs can tell the main movie to perform a puppetTransition. There are two solutions for MIAW transitions: (a) Physically reconstruct the transition with sprites, instead of the automatic transitions; (b) export the "from" and "to" frames from the MIAW as PICTs, bring into a digital video, construct a digital video transition, import the digital video to the MIAW and "play every frame as fast as possible". One advantage of this approach is that transitions not normally available in Director such as clock wipes, irises, and page peels can be implemented in digital video.

Tempo

MIAWs default to the main movie's tempo but otherwise have an independent tempo channel.. You can perform a puppetTempo within an MIAW, or use the tell command to change the MIAW's tempo.

Multiple MIAWs

If you want an MIAW to open another MIAW do not do it directly, instead tell the main movie to open the second MIAW.

Returning variables

If you want to get back the value of a function from a MIAW, then either set the result to a common global variable in the MIAW (if you know in advance that these movies will work together), or use the following Lingo construct:

```
tell the stage to myFunction()
put the result into field "foo"
```

MISCELLANEOUS INFORMATION

File Sharing

Copying a file in the Windows File Manager when the file is open in Director can corrupt the file. (You can use the DOS Share command to prevent simultaneous access by two programs.)

Compressed BMP and DIB Files

Avoid using compressed BMP or DIB files. These files are often called Run Length Encoded (RLE) bitmaps. Many video card drivers do not properly support compressed BMP files and could cause Director to crash. Use normal, uncompressed bitmaps. Never use RLE bitmaps as linked files when you cannot control the playback environment such as in projectors. You may experience crashes on certain video drivers with certain RLE bitmaps, and should use uncompressed forms when you save bitmaps in a paint program.

Custom Menus

Director for Windows doesn't support Bold, Italic,Outline, Shadow or Underline attributes in custom menus.

Hidden Menu Bars

When Director is maximized, pressing Ctrl-1 (Or selecting Window/Stage) will cause the stage to fill the screen and the menu bar to disappear so you can see the whole stage. When the stage is full screen in Director for Windows, the monitor's topmost line of pixels is still available as a menu bar. Although this line of pixels is barely visible, clicking and holding sections of this line causes menus to pop up. This line of pixels covers the top edge of any sprites that are at the top of the

stage.

XOBJDEV Directory

The XOBJDEV directory contains the XObject Developer's Toolkit for Windows.

ADDITIONAL SOURCES OF TECHNICAL INFORMATION

Multimedia Essentials for Windows

The user document Multimedia Essentials for Windows included in the box contains valuable information on a range of topics. Please review it for additional information.

MacroFacts

The MacroFacts fax server contains the latest technical notes on subjects such as additional sound and video card certification efforts, projector memory requirements, sound optimization and other subjects. It may be accessed by dialing 415/863-4409 or 800/449-4409 from any touch tone phone and following the instructions. Be sure to have your fax number available when you call.

Macromedia's Online Technical Support

Macromedia provides technical support through various online services, including CompuServe, America Online, eWorld, and Applelink. Participating on the online services is highly encouraged because it puts you right into the heart of the multimedia development community. Please leave public messages in our forums instead of sending direct e-mail to Macromedia technical support representatives. Public messages will receive our highest priority and can also be answered by anyone in the forum, not just Macromedia.

CompuServe

To reach our forum on CompuServe, Go Macromedia. On CompuServe, we provide message areas for discussion of our products and multimedia development, as well as libraries that contain useful utilities, examples, and other files.

America Online

To reach our forum on America Online, use the keyword Macromedia. On America Online, we provide message areas for discussion of our products and multimedia development, as well as libraries that contain useful utilities, examples, and other files.

Applelink

To reach our forum on Applelink, go inside the Third Parties folder. On Applelink, we provide libraries that contain useful utilities, examples, and other files.

eWorld

To reach our forum on eWorld, go to shortcut Macromedia. On eWorld, we provide message areas for discussion of our products and multimedia development, as well as libraries that contain useful utilities, examples, and other files.

Internet

Even though Macromedia doesn't provide official support on the Internet, there are a few locations where you can share information about our products with other users.

If you have access to the Usenet newsgroups, there are the comp.multimedia and alt.authorware newsgroups. Comp.multimedia contains discussion about general multimedia topics. There are also mailing lists for Authorware Professional and Director. These mailing lists are distributed through e-mail accounts, so they're available to users who can receive Internet e-mail.

To subscribe to the Director mailing list, send an e-mail message to **LISTSERV@UAFSYSB.UARK.EDU**. In the body of the message, type **SUBSCRIBE DIRECT-L <firstname> <lastname>.**