

VuePrint Help

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Introduction

VuePrint is a program that lets you display, manipulate, print, and convert graphics files, while at the same time playing sound/animation files. VuePrint supports graphics displays and printers that operate with the Microsoft Windows 3.1 operating environment, using at least a 386 microprocessor.

Some of the main features of VuePrint are:

- Reads and writes 6 different types of graphics files (GIF, BMP, PCX, TGA, JPG, TIF)
- Reads and writes internet graphics files in the uuencode format
- Has a built-in screen saver (formerly a separate program - VueSav)
- Includes a slide show feature with more than a dozen options
- Displays multiple images (frames) in a window (contact sheets)
- Can display any type of graphics file on any type of graphics display or printer (dithers)
- Supports copying to the clipboard, and pasting from the clipboard
- Uses 12 different effects for repainting the screen
- Has menu options to install and remove VuePrint

There are three different Editions of VuePrint:

- | | |
|----------------|---|
| 16-bit Edition | - for Windows 3.1 |
| Pro/32 Edition | - for Windows 95, Windows NT, and Win32s |
| CD-ROM Edition | - for CD-ROM distribution (no LZW license needed) |

The 16-bit and CD-ROM Editions are distributed as Shareware, but the Pro/32 Edition is not (it is for registered users only). The CD-ROM Edition is the same as the 16-bit Edition, except that it does not contain support for LZW-compressed GIF or TIFF files.

VuePrint automatically detects the display type, and uses a pattern of dots in a dither pattern on the display when there are fewer colors available than the image requires. This lets you use VuePrint on all laptop computers, as well as run multiple copies of VuePrint at the same time. Even when multiple pictures require more colors than are available, VuePrint will make a best effort to display the images.

Just as VuePrint tries to accommodate displays that have too few colors, it also tries to run on systems with limited memory. If an image will not fit in memory, VuePrint still makes a best effort to display the image by dropping alternate pixels until the image fits in memory.

To use VuePrint, you will need a personal computer that is running Microsoft Windows version 3.1 or higher. You will also need at least a 386 microprocessor. VuePrint will work with any Windows printer and display, including Hercules, EGA, 16-color, 256-color, 16-bit color, and 24-bit color displays.

Registering

VuePrint may be used and evaluated during a 15 day free trial period. If you decide to register your copy of VuePrint, you will get:

- o free upgrades (if you download them yourself). I released a new version of VuePrint every few months in 1994, all of which were free upgrades to registered users. My competitors do not do this, and neither do vendors of most commercial programs.
- o three programs in one - a viewer, a screen saver, and a program to read and write internet graphics files that are in the <uuencode> format. Normally you would have to buy each of these three programs separately.
- o the right to install VuePrint on four computers that you use. Since many people use multiple computers, this is more convenient and economical than registering multiple copies.
- o free support for VuePrint directly from the author via electronic mail (e-mail).
- o a serial number that disables the registration reminder.
- o the Pro/32 Edition of VuePrint (if you download it yourself). This Edition of VuePrint is for systems that can run WIN32 programs, including Windows NT, Windows 95, and Windows 3.1 with Win32s installed. It is available from America Online, CompuServe, and most Internet-connected services by using the FTP (File Transfer Protocol) capability of these services. When you register VuePrint, you will receive instructions on how to download this software. The Pro/32 Edition is almost twice as fast as the 16-bit version when reading JPEG files.

The \$40 registration fee can be paid three different ways:

- 1) If you want to pay the \$40 registration fee by credit card, please send your credit card number, expiration date, and full name (as it appears on the card) via electronic mail (e-mail) to either 71470,3236 on CompuServe or EdHamrick@aol.com on America Online. When I receive this information, I will send you your permanent VuePrint serial number by e-mail. There is no additional charge for registering by credit card. I can accept most credit cards, including Master Card, Visa, American Express, Eurocard, Carte Blanche, Diners Club, and JCB. I am not able to accept Discover Card. (Note that e-mail from one AOL or CompuServe subscriber to another on the same service is quite secure.)
- 2) If you have a CompuServe account, you can use the on-line software registration service. This service will charge your account \$40, and will automatically send me an e-mail message notifying me that you have registered. To use this service, go to the SWREG forum on CompuServe, and use Registration ID 1883. I will respond by e-mail with your permanent VuePrint serial number (usually within 24-hours). There is no additional charge for using the SWREG service.
- 3) If you would prefer to register by surface mail, please send the \$40 registration fee to:

Hamrick Software

**4171 E. Rockledge Rd.
Phoenix, AZ 85044-6771**

Please include either a check or a credit card number/expiration date/signature. If you include your e-mail address with your payment, I will send you your permanent VuePrint serial number by e-mail. Otherwise, I will send it by surface mail. Cash in equivalent amounts of other currencies is also accepted. (If you are an America Online member, your screen name is the same as your e-mail address.)

If you need a temporary serial number immediately, I have set up a 24-hour answering machine that you can call to get a temporary serial number. Call (602) 759-3966 to get a temporary serial number that will disable the registration reminder for an additional 15 days (you will need a touch-tone telephone to access this). Note that this temporary serial number can only be entered once, and additional temporary serial numbers obtained by phone can not be entered into VuePrint.

Note that you will not receive a diskette or a manual in the mail when you register, since you already have the complete VuePrint program, including the available documentation (this help file). This allows me to not charge anything for upgrades, since you can download them at your convenience.

Once the 15 day evaluation period ends, VuePrint displays a reminder that the evaluation period has ended, and a request to register the program. This reminder was carefully designed to not interfere with further evaluation of the program past the 15 day period - all functionality is still enabled after the evaluation period.

I really appreciate getting e-mail containing suggestions for improving VuePrint, since this is the main way I prioritize the features that get added to each new version. Most of the new features in VuePrint have been requested by a few customers, and some features had been requested by dozens of people. If you are one of the people who suggested some of the new features in VuePrint, thanks.

Screen Saver

VuePrint can be installed as both a viewer and as a screen saver. When installed as a screen saver, it displays graphics files on the screen when there is no activity for more than 5 minutes. The default setup causes it to search out all graphics files on the same drive as Windows, and to display these graphics files sequentially every 15 seconds. Any keypress, mouse click, or mouse movement of more than 16 pixels will cause the program to exit. Each time the screen saver exits, it remembers the last file that was displayed, and starts over again after 5 minutes of inactivity displaying this same file.

The screen saver can be installed by choosing Utilities|Install Screen Saver. The screen saver is just a copy of VUEPRINT.EXE that is copied into the Windows directory (normally c:\windows) and named VUESAVER.SCR. This help file is also copied into VUESAVER.HLP. The Pro/32 Edition uses VUEPRO32.EXE, VUEPRO32.HLP, and VUESAV32.SCR. The CD-ROM Edition uses VUECDROM.EXE, VUECDROM.HLP, and VUESAVCD.SCR.

All the options for the screen saver are stored in the Windows directory in the file VUESAVER.INI for the 16-bit Edition, VUESAV32.INI for the Pro/32 Edition, and VUESAVCD.INI for the CD-ROM Edition. Any VuePrint option can be set up in this file. For example, to disable the mouse during the screen saver, set the option <IgnoreMouse=1>.

To configure the screen saver, you can either choose the Utilities|Configure Screen Saver menu item, or choose the <Setup> button from the <Desktop> Control Panel.

All the options that can be set on the screen saver setup screen are the same as the options in the VuePrint menus. All these options do is set up the VUESAVER.INI configuration file.

File Formats

VuePrint reads four types of files:

Image files (.GIF, .BMP, .DIB, .PCX, .TGA, .JPG, .TIF)

Sound/animation files (.MID, .WAV, .AVI, .MPG, .MMM, .MCI)

Slide Show files (.SLI)

Uuencoded files

A file that has an image file extension or an unrecognized extension is automatically recognized by the first few bytes in the file. If the first few bytes of the file are not recognized, the software checks to see if the file is a Macintosh GIF or JPEG/PICT file. If it is a Macintosh GIF or JPEG/PICT file, the header information is skipped and the file is read normally. Note also that any image file may be optionally compressed with the zip format. This means that you can compress files such as BMP or TGA, and they can be read directly by VuePrint without needing to decompress them first.

GIF Files (.GIF)

VuePrint will read both GIF 87a files and GIF 89a files. GIF files that have Macintosh headers are also recognized. The only GIF 89a attribute that is used is transparency, the other GIF 89a extensions (such as text overlays) are ignored. Multiple Image GIF files are supported, and the image that is displayed is the composite of all the multiple image segments. Comments that are contained in the GIF file are stored in the Comments window, and are saved when a GIF, JPEG, or TIFF file is written. (The CD-ROM Edition does not read or write GIF files.)

BIF Files (.BIF)

BIF (Binary Image File) files are uncompressed GIF files, optionally encapsulated within a ZIP file. A compressed BIF file is usually about 10% smaller than the same GIF file. VuePrint can read and write BIF files, allowing easy conversion between these two file formats. Please consult the Hamrick Software WWW page for details (URL <http://www.primenet.com/~hamrick/>).

Bitmap Files (.BMP, .DIB)

All BMP and DIB bitmap formats are supported, including compressed and OS/2 bitmaps.

PC Paintbrush Files (.PCX)

PCX files that are version 3.0 or less are supported, including reading the 24-bit format. The CGA color palette information is ignored. The <File|Save as...> option creates 8-bit PCX files.

Targa Files (.TGA)

All Targa file formats are supported.

JPEG Files (.JPG)

VuePrint reads JPEG files that use either the JFIF format (.JPG extension) or the Macintosh

JPEG/PICT format. Comments that are contained in the JPEG file are stored in the Comments window, and are saved when a GIF, JPEG, or TIFF file is written.

TIFF Files (.TIF)

VuePrint reads and writes TIFF files that conform to the TIFF 6.0 specification, including files compressed with LZW, CCITT Group 3, and CCITT Group 4 methods. Tiled files are not supported. Comments that are contained in the TIFF file are stored in the Comments window, and are saved when a GIF, JPEG, or TIFF file is written. (The CD-ROM Edition does not read or write LZW compressed TIFF files.)

Sound Files (.MID, .WAV)

Standard MIDI and WAV files are supported. If you only have the PC Speaker sound driver, you will need to select the Sound|Synchronous option. MIDI files can not be played with the PC Speaker sound driver.

Animation Files (.AVI, .MPG, .MMM)

If you have the MCI device drivers for AVI, MPG, or MMM files installed, VuePrint is able to play these movies. You can also use the Media Player that's included in the Accessories folder to play these files.

Multimedia Command Interface Files (.MCI)

MCI files contain MCI commands. Refer to various Microsoft descriptions of MCI command strings for more details. In order for MCI files to interact properly with the slide show feature, one MCI command should use the <notify> parameter. When the command completes, VuePrint will automatically issue the <close all> MCI command. For example, the following MCI file will play track two of an audio CD player, and will continue a slide show after the track completes:

```
# This script plays track two on an audio cd
open cdaudio alias cd
set cd time format tmsf
play cd from 2 to 3 notify
```

Slide Show Files (.SLI)

Slide Show files (.SLI) are just text files containing a list of image or sound/animation files, one file name per line. This list can contain other .SLI files, which can refer to other .SLI files, and so on (up to eight times). A slide show list is also automatically created with you use the File|Open menu to select a single file. A slide show list is also created when you choose the Slideshow|File spec menu.

Slide show files can contain both image and sound/animation files, and the slide show can play back sound/animation files at the same time the images are changing. The minimum delay between any two sound/animation files and the minimum delay between any two image files can be set with menu options.

Uuencoded files (.UU?)

Uuencoded files are commonly used on the Internet to convert image files into a text file that can be sent over the Internet as e-mail. Please refer to the section on Internet

Graphics for more details.

File Manager

VuePrint can be integrated with the Windows File Manager by choosing the Utilities|Install VuePrint to associate VuePrint with the Image, Sound/Animation, and Slide Show file types. You can use Utilities|Remove VuePrint to disassociate VuePrint and restore the previous associations. When VuePrint is installed, you can use the File Manager to double-click on any Image, Sound/Animation, or Slide Show file, and VuePrint will be automatically started to display (or play) the file. VuePrint will also print images chosen in the File Manager.

You can also use the Utilities|Install Extension and Utilities|Remove Extension commands to install and remove File Manager associations.

Program Manager

VuePrint provides a complete command line argument processing system that gives you the capability to install different VuePrint icons to do different things. Because the command line processing is also performed when VuePrint is started from another program, you can use VuePrint as a viewing subsystem for other applications. The command line can contain two types of arguments - options and file names. File names have complete wildcard support, and the additional feature that filenames ending in <...> will recursively descend a directory tree looking for additional files.

The command line is processed from left to right. Valid command line options can have the following forms:

```
-name  
/name  
-name=value  
/name=value
```

If there is no value specified, the value 1 is used.

The names of the options are the same as those in the VUEPRINT.INI option file, and override the settings in that file. Command line options can be abbreviated, are not case sensitive, and the first one matching the command line option is used. There are two additional command line options that are not used by the .INI file:

```
/directory=name  
/print  
/install
```

The /directory=name option changes the current drive and directory to <name>. This is useful when VuePrint is used as a subsystem of another program.

The /print option causes every file on the command line to be displayed and then printed. Only the first file sets up the printer options, the remainder use the same printer options. This lets you do unattended printing of large numbers of image files.

The /install option invokes the Utilities|Install VuePrint menu item when VuePrint starts up.

Interrupting

VuePrint has been designed to let you interrupt loading files, since this operation can sometimes take some time. Any menu choices that need to read or change the current image will interrupt the currently loading file. Other options that interrupt loading the current image include those that save and restore option settings, change the number of frames, install or remove VuePrint or the Screen Saver, invoke Help, or display any dialog box.

For example, pressing the <X> key while a file is being loaded will execute the File|Exit command, causing VuePrint to immediately exit.

Options

There are about 75 different options that can be used for VuePrint. These options are stored in a file in the same directory as the program. The name of the .INI file matches the name of the program. For instance, if you copy C:\WINDOWS\VUEPRINT.EXE to C:\TEST\VUETEST.EXE and then run VUETEST.EXE, the file C:\TEST\VUETEST.INI is used to hold the options for this program. This lets you install multiple copies of VuePrint, each with different options.

Each option has a default value, a minimum value, and a maximum value. In addition, there are different default values when the program is run as a viewer and as a screen saver.

The following options can be used in the .INI file and on the command line. Their names, default values, default screen saver values, minimum values, and maximum values are:

Options from File menu

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
OpenIndex	10	7	1	11
SaveAsIndex	1	1	1	6
DeleteIndex	10	10	1	12
UudecodeIndex	1	1	1	2
UuencodeIndex	10	10	1	11
UnzipIndex	1	1	1	2
ZipIndex	7	7	1	11
ZipInfoIndex	1	1	1	2
TopMargin	0	0	0	none
LeftMargin	0	0	0	none
RightMargin	0	0	0	none
BottomMargin	0	0	0	none
ShowComments	0	0	0	1
ShowHistory	0	0	0	1

Options from Image menu

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
Rotate	0	0	0	7
Brightness	5	5	1	9
Contrast	5	5	1	9
Invert	0	0	0	1

Options from Sound menu

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
SoundEnable	1	1	0	1
SoundSynchronous	0	0	0	1
SoundLoop	0	0	0	1

Options from Slideshow menu

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
RunSlideshow	0	1	0	1
ExitOnKey	0	1	0	1
ExitOnMouse	0	1	0	1
ExitOnLastFrame	0	0	0	1
ExitWhenDone	0	0	0	1
StopOnKey	0	0	0	1
StopOnMouse	0	0	0	1
StopOnLastFrame	0	0	0	1
StopWhenDone	0	0	0	1
IgnoreKey	0	0	0	1
IgnoreMouse	0	0	0	1
EnablePassword	0	0	0	1
RandomOrder	0	0	0	1
ImageDelay	5	15	0	none
SoundDelay	0	0	0	none

Options from Options menu

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
DisplayInColor	1	1	0	1
PrintInColor	1	1	0	1
PrintDithered	0	0	0	1
BackgroundRed	192	0	0	255
BackgroundGreen	192	0	0	255
BackgroundBlue	192	0	0	255
ForegroundRed	0	192	0	255
ForegroundGreen	0	192	0	255
ForegroundBlue	0	192	0	255
DitherQuality	2	2	1	3
Effect	1	1	1	12
AutoScale	0	0	0	1
AutoFit	1	1	0	1
AutoCrop	0	0	0	1
AutoDither	0	0	0	1
AutoComments	0	0	0	1
AutoSearch	0	1	0	1
AutoResume	1	1	0	1
RememberOptions	0	0	0	1
FramesAcross	1	1	1	999
FramesDown	1	1	1	999
FramesRandom	0	1	0	1
FramesAnnotate	1	0	0	1
FillWindow	0	1	0	1

Options from Misc menu

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
OutputWidth	0	0	0	none
OutputHeight	0	0	0	none
UuencodeLines	400	400	1	none
BIFInterlaced	0	0	0	1
BIFTransparent	0	0	0	1
JPEGTwoPass	1	1	0	1
JPEGUseDithering	1	1	0	1
JPEGUseMonochrome	0	0	0	1
JPEGBlockSmoothing	0	0	0	1
JPEGPixelSmoothing	0	0	0	1
JPEGOutputMonochrome	0	0	0	1
JPEGOutputOptimize	1	1	0	1
JPEGOutputQuality	75	75	0	100
JPEGOutputSmoothing	0	0	0	100
TIFFCompression	1	1	1	5
EnableCtI3d	1	1	0	1
EnableLargeDialogs	1	1	0	1

Window position settings

<u>Option Name</u>	<u>Default</u>	<u>Saver</u>	<u>Min</u>	<u>Max</u>
XImage	0	0	0	999
YImage	0	0	0	999
WImage	1000	1000	1	1000
HImage	1000	1000	1	1000
MImage	0	0	-1	1
XComments	0	0	0	999
YComments	667	667	0	999
WComments	1000	1000	1	1000
HComments	333	333	1	1000
MComments	0	0	-1	1
XHistory	0	0	0	999
YHistory	667	667	0	999
WHistory	1000	1000	1	1000
HHistory	333	333	1	1000
MHistory	0	0	-1	1

The options for controlling window positions are designed to be independent of the display resolution. These values range from 0 to 1000, where 1000 is the full width (or height) of the display. The option beginning with M is -1 for a minimized window, 0 for a normal window, and 1 for a maximized window.

Note that all options are stored as a 16-bit signed number, so the maximum value for any option is 32767.

Mouse

The left mouse button can be used to select a rectangular subset of an image. This subset of the image is used when displaying, printing, or saving an image. The right mouse button is used to move a zoomed-in image within the window (you will see a hand icon when moving). A double-click of the right button will select the whole image.

When the left mouse button is clicked, and less than 16 pixels are selected, the image is zoomed by a factor of two, centered on the position of the mouse. If the control key is pressed while the left mouse button is clicked, the image will be zoomed out by a factor of two. If the shift key is pressed with the left mouse button, the image is cropped, and if the control and shift keys are both pressed, the image is rotated.

If the display has multiple frames and the left mouse button is clicked outside the current frame, the current image is painted in the clicked-upon frame.

If both mouse buttons are pressed at once, the program will exit.

Keyboard

Most menu items have a keyboard equivalent. The key that corresponds to the menu item is displayed along with the menu.

The arrow keys on the keyboard will move a zoomed image. If the shift key is pressed along with an arrow key, the zoomed image will move in window-sized jumps. If the control key is pressed along with an arrow key, the zoomed image will move in single-pixel jumps. If the Alt key is pressed with an arrow key, the size of the zoomed area will be adjusted in single-pixel jumps.

Long-running MCI commands can be aborted by pressing Control-Break.

Hints for Improving Display Quality

If you get a display that seems fuzzy (made up of lots of small dots), you probably have your Windows display adapter configured for 16 colors. To configure your display adapter for 256 (or more) colors, go to the Program Manager and open the <Main> window. Then open the <Setup> window, and choose the <Options|Change System Settings> menu. Choose a display mode that has 256 (or more) colors, and then press <OK>. If you can not find a display mode for 256 (or more) colors for your display type, select the last item in the list <Other display (requires disk from OEM)...>. You will have to insert the diskette containing the display driver for your computer. This diskette probably came with your computer, or came with your display adapter if you bought it separately.

If your display still seems fuzzy when you configure your system for 256 colors, you probably have the Effects option set to something other than Direct, or you have the number of frames across or down set to a number larger than one. The reason for this is VuePrint needs to use a fixed palette for the display under these conditions, because two or more images (with 256 colors each) may be displayed on the screen at a time. VuePrint has to make a compromise palette in order to display several images at the same time, and the compromise (fixed) palette is not always optimal for either image. The solution to this is to configure your display for either 65536 colors or 24-million colors (if your hardware supports it), or to set the effect to Direct, and the number of frames across and down to one.

If your display is configured for more than 256 colors, you can improve the display quality of JPEG files by making sure the JPEG|Two Pass option is turned off. When this option is turned off, the full 16 million colors in the JPEG files are displayed.

If you have several hard drives, you can set up an environment variable (TMP or TEMP) to tell VuePrint where to write temporary files when processing very large JPEG files with the JPEG|Two Pass option.

If you have a JPEG file that you suspect is bad, you can still view whatever is present in the file by turning off the JPEG|Two Pass option.

Internet Graphics

There are two sources of graphics files on the Internet, ftp (File Transfer Protocol) and usenet (Internet news groups).

To use ftp to retrieve graphics files from an Internet site, make sure you have enabled binary transfers (type BIN at the ftp> prompt). If you are using the America Online ftp software, this is done for you automatically.

You can also find many different kinds of graphics files in the Internet usenet news groups. For instance, the alt.binaries.pictures... hierarchy contains the majority of the Internet traffic in graphics files.

The graphics files in the usenet news groups are usually in a <uuencoded> format (it stands for Unix-to-Unix-Encoded). These files are often broken up into several pieces, because there is a limit on the size of a file that can be sent by e-mail to some Internet systems. A uuencoded file begins with a line that looks like <begin 660 file.gif>. It is then followed by multiple lines that begin with <M> and are 61 characters long. The last three lines are usually a line that is shorter than 61 characters long, a line with the single character <`>, and a line that contains <end> by itself.

A uuencoded file can also contain a few dozen lines of extraneous information at the top and bottom of the file. You do not have to edit these lines out by hand, since the VuePrint program automatically discards this information when processing a uuencoded file.

The first step to decoding these images is to download the uuencoded files to your hard drive on your computer. If you are using America Online to access the usenet news groups, you can download these files by:

- 1) Double-click on the uuencoded article.
- 2) Repeatedly click the <More> button (to retrieve additional segments of the file)
- 3) When the <More> button is grayed out, choose File|Save As...
- 4) Choose a name like <file1.uu1>, <file1.uu2>, ... to hold the pieces of the file

Once you have downloaded the uuencoded files to your hard drive, use VuePrint to decode these files. To decode these files, put the pieces of the file in order in files named something like <file1.uu1>, <file1.uu2>, ... <file1.uuN>. (The ordering goes 1,2,...8,9,a,b,c...). Then choose File|Udecode and press the control key at the same time as clicking each piece with the mouse to select the pieces of the file. When you press OK, the pieces will be put together, and the original image file will be put in the same directory as the uuencoded files. You can then use <File|Open...> to view these files.

There are two common problems people have in decoding internet graphics files. The most common problem on America Online is not pressing the <More> button till it turns gray before choosing <File|Save As...>. The other common problem is not selecting all the pieces of the file before pressing OK in the File|Udecode dialog.

If you want to diagnose problems further, use a text editor to look at the uuencoded files. The first file should look something like:

```
(some header text which is ignored)
begin 644 FILE.GIF
M1TE&.A=A`19`O<`A@P+)R9<VQI0\'*P'.':JFTFFZBAI"8GDE22'EC0ZFO
MN(&3=JBCCE];1FY[8-G?YlW3VIVBKWJ/F[:_M9)Z6[6[QB5;8IZ)665ZA+"2
M9;^=;X1M7$1"/&BG<,'T$Q.5I:AQL*KB)"BDFQ51H1YAIBX;9R1GIR$>:&N
```

(lots of 61-character lines beginning with "M")
(some trailer text which is ignored)

The last file should look something like:

```
(some header text which is ignored)
(lots of 61-character lines beginning with "M")
MQ-$X3>3AR$<:UPT*, $) ]L3"B?XBJ" (9(Q`N8XY_W0B*2(?S!&`4HX!A&5P!C
MJ*$83Q`& (?0P!3WLH`MEH`8D]!$>0ACB+6" (PPA2D`8HW*(G/=D: (DP0`6BX
9P`,JWA,RGC`>JKV6/C?J"D/L, [ ]>!`0`.V" (
`
end
(some trailer text which is ignored)
```

Each file in-between should consist of 61-character lines beginning with "M", with header and trailer text that is ignored. Note that the 61-character lines above are just examples - your specific files will have different text.

If one of the files ends with a line that begins with "M" but is shorter than 61 characters, then it probably has been shortened, and the resulting file will be corrupt. When VuePrint reads a file that is corrupt, it displays a small white box in the middle of the screen.

Limitations

VuePrint reads GIF, DIB, BMP, PCX, TGA and TIFF files that have a maximum width of 4096. JPEG files can have a maximum width of 2048. All image files can have a maximum height of 6000. An image can take up to 50% of the free memory. If an image can not fit into the available memory, every other pixel and line is dropped until it fits.

If you are using the JPEG|Two Pass option, VuePrint will use up to 75% of the available memory for temporary storage of data for the second pass. If you want to override this, set up the environment variable TEMPMEM. For instance, if you put <SET TEMPMEM=6m> in AUTOEXEC.BAT, VuePrint will use 6 million bytes of memory for temporary storage. (You can also use k, K, or M as a suffix.)

The maximum number of files that can be selected in the File|Open is limited by a 16384 character buffer for holding the file names.

MCI commands can be a maximum of 249 characters long. The MCI command result can also be a maximum of 249 characters long.

If you set wallpaper to a bitmap that has 24 bits per pixel, Windows will refuse to start up if you restart your system with 8 (or fewer) bits per pixel. If this happens, edit the file WIN.INI in the Windows directory and delete the line <wallpaper=vueprint.bmp> in the section beginning with <[desktop]>.

Upgrading

You can obtain the latest version of VuePrint from America Online, CompuServe, and the Internet. It is also available from other on-line services and several CD-ROM distributors.

America Online: Choose the <Go To|Keyword...> option and enter <Graphics>. Then select <Recommended Utilities>. You can also go to keyword FTP access the ftp site below.

CompuServe: Go to the GRAPHSUPPORT Forum, Library 3 (GIF Viewers), and download VUEPRI.ZIP. You can also GO FTP and access the ftp site below.

ftp: host name: <ftp.primenet.com> directory: </users/h/hamrick>.

www: <<http://www.primenet.com/~hamrick/>>

After you register VuePrint, you may download the VuePrint Pro/32 Edition from the above ftp site. It is only available to registered VuePrint users who have access to an on-line ftp service. The Pro/32 Edition of VuePrint is a 32-bit version that is up to twice as fast at reading JPEG files as the standard 16-bit version. If you are using Windows 3.1 or 3.11, you will also need to obtain the win32s software to run this.

You can also obtain the CD-ROM Edition from this site.

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I would also like to thank Phillip Crews for his helpful programming and marketing advice.

VuePrint is based in part on the work of the Independent JPEG Group.

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```
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```

The CD-ROM Edition of VuePrint contains no LZW compression/decompression code.

The Copyright information for the TIFF LZW compression code is:

```
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```

File Menu

The File menu provides commands to open files, save files in five different formats, print images, advance the slide show list, copy and delete files, process uuencoded files, process zip archives, control the comments and history informational windows, and exit the program.

- Open...** opens an image or sound/animation file. You can select multiple files by using control-click to add single files, or shift-click to select a range of files. If only a single file is opened, the other image and sound/animation files in the same directory are added to the slide show list. Only files of the type specified in the File Types control are added to the slide show list.
- Close** closes the currently open files and clears the screen. This can be used even while a file is being loaded.
- Save as...** saves the currently selected image in a file. The file format is determined by the file extension. If the file extension is not recognized, then the file format is determined by the File Type control in the dialog. The image is saved in its rotated and cropped format, with the same palette as currently displayed. The width and height of the image saved can be changed by the <Misc|Output width...> and <Misc|Output height...> menu items (if zero, the current image width or height is used). The contents of the comments window will also be saved to GIF, JPEG, and TIFF files.
- Save wallpaper...** saves the currently selected image (rotated, clipped, and dithered) to the Windows directory. The image is scaled up to the size of the screen if the AutoScale option is enabled, and is always scaled down to the size of the screen if larger than the screen. This command then sets this file as the desktop wallpaper.
- Print...** prints the current image.
- Print setup...** displays a printer setup dialog box.
- Print margins...** lets you specify the size of the margins (in millimeters) Note that these are not always margins to the edge of the paper, only margins relative to the print area. If you want to be precise about the margins, your printer manual will probably give you information about the positioning of the print area on the paper. There are 25.4 millimeters per inch, but an integral number of millimeters must be entered. Note that often one dimension of the printed image will not extend all the way to the margin, since the aspect ratio of the image does not always match the aspect ratio of the print area.
- Next** loads the next file in the Slide Show list.
- Random** loads a random file from the Slide Show list.
- Previous** loads the previous file in the Slide Show list.

Copy image to...	lets you make a copy of the current image file.
Copy sound to...	lets you make a copy of the current sound/animation file.
Delete image...	lets you delete the current image file.
Delete sound...	lets you delete the current sound/animation file.
Delete files...	lets you delete a number of files at once.
Uudecode...	lets you decode files that have been encoded using uuencode. These files are commonly used for transmitting <u>Internet Graphics</u> in Internet news groups. The files may contain extra header and footer lines, and files may contain parts of a uuencoded files, entire uuencoded files, or multiple uuencoded files. The only restriction is that the files will be processed in alphabetical order. The most convenient naming scheme is file.uu1, file.uu2, ... file.uu9, file.uua, file.uub, etc., but any naming scheme may be used as long as the files are in alphabetical order. Note that you have to select all the files you want to decode by clicking on the first file in a series, and then using shift-click to click on the last file in a series, then press OK.
Uuencode...	lets you encode files in the uuencode format. Files are written using the same file name as the input file, but with extensions .uu1, .uu2,uu9, .uua, .uub, etc. The maximum number of lines per file can be changed by changing the <Misc Uuencode lines...> menu item. This option is used to compute the number of files that must be written, and then the actual number of lines per file is computed to try to make each file roughly equal size. Very large input files may have more lines than expected, since at most 35 output files are created per input file.
Unzip...	lets you extract files from a zip archive. You will be asked to specify the directory that you want to extract the files into. Note that this command uses an MS-DOS program that you must supply to do the unzipping - usually either pkunzip.exe or unzip.exe. This program must either be located on the current search path, or you must enter the full directory and name of the file.
Zip...	lets you create a zip archive and add files to this archive. You will be asked to specify the name (and directory) of the zip archive file. Note that this command uses an MS-DOS program that you must supply to do the zipping - usually either pkzip.exe or zip.exe. This program must either be located on the current search path, or you must enter the full directory and name of the file.
Zip info...	lets you display information about files in a zip archive. Note that this command uses an MS-DOS program that you must supply to do this - usually either <pkunzip.exe -vm> or <unzip.exe -t>. This program must either be located on the

current search path, or you must enter the full directory and name of the file.

Show comments

displays a window containing comments contained within the currently displayed image (up to 100 lines).

Show history

displays a window containing a log of the last 100 VuePrint events since the program was started.

Exit

exits VuePrint.

Edit Menu

The Edit menu provides commands to exchange data with the clipboard. It lets you copy and paste the current image, copy and paste the comment text associated with an image, and copy the picture in the window to the clipboard. Note that the clipboard can hold either an image or comments, but not both at the same time. When an image is pasted from the clipboard the comments window is cleared.

- | | |
|------------------------------|--|
| <i>Copy image</i> | copies the current image to the clipboard. If the image has 24 bits per pixel, it is converted to 8 bits per pixel before copying to the clipboard. The image is copied in its rotated and cropped format, but at the original resolution of the image and with the original palette. If the image is dithered on the display, it will not be dithered after copying to the clipboard. |
| <i>Paste image</i> | copies an image from the clipboard to the current image. The clipboard must contain a bitmap, a metafile, or a device-independent bitmap. |
| <i>Copy comments</i> | copies the text in the comments window to the clipboard. |
| <i>Paste comments</i> | copies text from the clipboard to the comments window. |
| <i>Copy window</i> | copies the current window to the clipboard. The window is copied at the resolution of the window and with the same palette as the window. |

Image Menu

The Image menu provides commands to manipulate the current image. Note that images are saved with the zooming, cropping, rotating, mirroring, and flipping applied, with the same brightness, contrast, and invert settings as currently displayed. The brightness, contrast, and invert settings for the image are also used for adjusting the brightness, contrast, and invert settings on the printouts.

Zoom in	zooms the image by a factor of two. If the Options Auto scale is selected, images smaller than the window will be scaled up to fill the window.
Crop	cuts borders off the edges of the image. A border is detected by searching for borders that contain significantly fewer colors than the image as a whole.
Zoom out	zooms out by a factor of two.
Rotate	rotates the image 90 degrees clockwise.
Mirror	mirrors the image horizontally.
Flip	flips the image vertically.
Brighter	increases the overall brightness of the image (and printout).
Dimmer	decreases the overall brightness of the image (and printout).
More contrast	increases the contrast (gamma) of the image (and printout).
Less contrast	decreases the contrast (gamma) of the image (and printout).
Invert	inverts the image. This is useful if you want to print an image, such as a map, that consists of white graphics on a black background.
Reset	resets the image to the default zoom factor, rotation, brightness, contrast, and invert settings.

Sound Menu

The Sound menu provides commands to manipulate the currently loaded sound/animation file.

Enable	enables playing sounds and animations.
Synchronous	enables playing sounds synchronously. This is useful if you have a sound driver for the PC speaker, which requires playing sounds synchronously. MIDI files can not be played using the PC speaker sound driver.
MCI command...	lets you enter an <u>MCI command</u> .
Louder	increases the volume for .WAV files.
Softer	decreases the volume for .WAV files.
Loop	replays the current sound/animation file when it reaches the end.
Replay	replays the current sound/animation file.

Slideshow Menu

The Slideshow menu provides commands to set up a slide show. When the slide show is running, all other functions in VuePrint can be used. The only thing that running a slide show does is advance to the next image or sound/animation file after the delay between sounds/animations or images completes. This menu also provides options for controlling what happens when a keyboard or mouse action happens while the slide show is running.

Run slideshow	controls the running of slide shows. The list of files for the slide show can come from two places - multiple files opened with File Open , or <File spec...>. The order of displaying files in a slide show is either the next, previous, or a random file in the list, depending on how the current file was selected. If the <Random order> option is selected, then a random file is always selected as the next image in a slide show sequence.
Go to slide...	lets you enter the file name of a file that is already in the slide show list. This file, if it is found in the list, will be loaded and displayed, otherwise the current file will be reloaded and displayed.
File spec...	lets you enter the file specification of files for the slide show list. The first file found is loaded and displayed. Note that this file spec can be a single file name of a .SLI file (e.g. c:\test\slides.sli), a directory where images are located (e.g. c:\images\), a wildcard specification (e.g. c:\images*.gif), or a special name indicating that all subdirectories should be searched (e.g. c:\images...). If a directory name is specified, and the Auto Search option is enabled, all subdirectories will also be searched. The types of files that are selected are those selected in the File Open dialog box.
Exit on key	exits the program when any key is pressed while a slide show is running.
Exit on mouse	exits the program when a mouse button is pressed, or when the mouse is moved while a slide show is running.
Exit on last frame	exits the program after the last frame (i.e. lower right hand corner) is displayed.
Exit when done	exits the program after all the files in a slide show are displayed.
Stop on key	stops running the slide show when any key is pressed.
Stop on mouse	stops running the slide show when a mouse button is pressed, or when the mouse is moved.
Stop on last frame	stops running the slide show after the last frame (i.e. lower right hand corner) is displayed.
Stop when done	stops running the slide show after all the files in a slide show are displayed.

<i>Ignore key</i>	ignores all keystrokes while a slide show is running.
<i>Ignore mouse</i>	ignores all mouse buttons and mouse movements while a slide show is running.
<i>Enable password</i>	prompts you for the screen saver password (if it has been set up) before stopping a running slide show.
<i>Random order</i>	displays images in the slide show list in random order while the slide show is running.
<i>Set password...</i>	lets you set up or change the screen saver password. If it has previously been set up, you need to enter the old password before being able to set up a new password.
<i>Image delay...</i>	lets you enter the minimum delay between successive image files in a slide show.
<i>Sound delay...</i>	lets you enter the minimum delay between successive sound/animation files in a slide show.

Options Menu

The Options menu provides commands to manipulate various VuePrint options, and to save and restore all options (including window positions).

Display in color	enables displaying images in color.
Print in color	enables printing images in color.
Print dithered	lets you print images using VuePrint dithering. You may want to enable this option when working with some types of dot-matrix printers that normally use a coarse pattern to approximate continuous tone images. If you use this option, set up the printer dialog to use no dithering since it is redundant and will just make the printout take longer.
Background color...	lets you choose the background color for images, which is used for the border around images.
Foreground color...	lets you choose the foreground color, which is used to display text and borders for multiple frames.
Dither quality	lets you trade off between dither quality and speed. The low quality setting paints the screen the fastest, and the high quality setting looks the best. The default is the medium quality setting.
Effect	lets you choose how the screen is repainted. There are 12 different effects you can choose for repainting. Note that if you are using a 256-color display and an effect other than <Direct>, the image will appear grainy due to VuePrint using a fixed palette for dithering.
Auto scale	automatically scales images to fill the window. It maintains the width/height ratio of the image, so one dimension of the image may not extend to the edge of the window.
Auto fit	when the <Auto scale> option is off, automatically reduces large images to fit inside the window. Also causes the areas of an image selected by the mouse to be fit within the window borders.
Auto crop	automatically crops images after loading. The borders around an image are cropped if they contain substantially fewer colors than the image as a whole.
Auto dither	automatically dithers images if there is a substantial percentage of the picture that can not be represented accurately with the colors that are available on the display.
Auto comments	automatically displays the comments window after loading an image that contains comments, and removes the comments window if the image contains no comments. Only GIF, JPEG, and TIFF files can contain comments.

<i>Auto search</i>	automatically searches all subdirectories (up to 8 levels deep) for image files when a directory is specified in the File spec... option.
<i>Auto resume</i>	automatically saves the current directory and current image on exit. If the slide show is running when the program starts, the slide show starts up where it left off. The current directory is also restored when the program is restarted, unless VuePrint is started from the File Manager (i.e. has file names on the command line). The current directory can be overridden by the /directory=xxx command line option.
<i>Save options</i>	saves the current setting of all <u>options</u> in VUEPRINT.INI in the Windows directory.
<i>Restore options</i>	restores all <u>options</u> from VUEPRINT.INI in the Windows directory.
<i>Default options</i>	sets all <u>options</u> to their default values. If you want to save these default settings in VUEPRINT.INI, choose <Save options> after this.
<i>Remember options</i>	saves the current setting of all <u>options</u> when the program exits.
<i>Frames across...</i>	lets you enter the number of images to display in frames in a window in the horizontal direction. Note that if you are using a 256-color display and multiple frames across, the image will appear grainy due to VuePrint using a fixed palette for dithering.
<i>Frames down...</i>	lets you enter the number of images to display in frames in a window in the vertical direction. Note that if you are using a 256-color display and multiple frames down, the image will appear grainy due to VuePrint using a fixed palette for dithering.
<i>Frames random</i>	displays images in frames in random positions on the screen. The size of these frames is determined by the number of frames across and down. This option has no effect if both the number of frames across and down are set to 1.
<i>Frames annotate</i>	displays the file name of the image at the bottom of the frame. This option has no effect if both the number of frames across and down are set to 1, or if the <Frames random> option is selected.
<i>Fill window</i>	removes the border and menu bar from the window. You can toggle this on and off by pressing the Escape key.

Misc Menu

The Misc menu provides commands to control the reading and writing of various types of files, and also controls whether Dialog boxes use 3-D controls and larger sizes.

<i>Output width...</i>	sets the width of the file written with <File Save as...> (if non-zero).
<i>Output height...</i>	sets the height of the file written with <File Save as...> (if non-zero).
<i>Uuencode lines...</i>	sets the maximum number of lines to write to a single file while uuencoding files. Note that the number of lines in a file may be larger than this if the total number of files would otherwise be larger than 36. The default value of 400 is set so these files can be sent in pieces via e-mail on America Online.
<i>BIF/GIF Interlaced</i>	causes BIF and GIF files to be written with interlacing. This makes the files appear progressively when viewed by some types of interactive viewers.
<i>BIF/GIF Transparency</i>	causes BIF and GIF files to be written with transparency. VuePrint finds the most commonly used color on the border of the image, and uses this for the transparent color.
<i>JPEG Two pass</i>	causes JPEG files to be read in two passes. The first pass analyzes the colors, and the second pass reduces the data from 24-bits to 8-bits per pixel. If this option is turned off, the full 24-bits per pixel will be stored in memory. Note that only 8-bits per pixel will be kept in memory if the <Use Monochrome> option is selected, or if the JPEG file only has one color component. Note also that the image will still look quite good on an 8-bit display if this option is not chosen. If the <Two pass> option is not selected, images will load a bit faster, but will take a bit longer to be painted on the screen on 8-bit displays. However, very large JPEG files will load much faster with this option turned off because the JPEG code will not need to write a temporary file between passes.
<i>JPEG Use dithering</i>	enables using Floyd-Steinberg dithering with the two-pass algorithm.
<i>JPEG Use monochrome</i>	enables converting the JPEG file to 8-bits per pixel of monochrome data when loading.
<i>JPEG Block smoothing</i>	causes the 8x8 blocks to be smoothed before transforming them from the frequency domain.
<i>JPEG Pixel smoothing</i>	causes the 8x8 blocks to be smoothed after transforming them from the frequency domain.
<i>JPEG Output monochrome</i>	causes JPEG files to be written in monochrome (black/white).
<i>JPEG Output optimize</i>	performs entropy optimization when writing JPEG files, which

should improve the quality of the image.

JPEG Output quality... lets you set the quality of the image when writing a JPEG file. The quality ranges from 0 to 100, with 75 being the normal setting. The lower the quality, the smaller the size of the JPEG file.

JPEG Output smoothing... lets you set the amount of smoothing done on the image before writing a JPEG file. The smoothing ranges from 0 to 100, with 0 being the normal setting. Smoothing is sometimes useful when the image is dithered, or has a lot of noise in it.

TIFF No compression writes TIFF files with no compression.

TIFF CCITT RLE writes black/white TIFF files with CCITT RLE compression.

TIFF CCITT Group 3 writes black/white TIFF files with CCITT Group 3 compression.

TIFF CCITT Group 4 writes black/white TIFF files with CCITT Group 4 compression.

TIFF LZW writes grey-scale and color TIFF files with LZW compression. This option is not available in the CD-ROM Edition of VuePrint.

Enable 3d controls lets VuePrint use the 3-D controls library to give 3-D effects to dialog boxes. It searches for the 3-D controls DLL in the Windows system directory to determine whether to use 3-D controls. The 3D controls library is not used with Windows 95.

Enable large dialogs causes VuePrint to use larger Open/Save dialogs instead of the standard Windows File Open/Save dialogs. Some display drivers use a large font size when displaying the large VuePrint dialogs, causing them to be larger than a 640x480 screen. Some systems using the Norton Desktop also need this option to be cleared, especially when using a 640x480 screen.

Utilities Menu

The Utilities menu provides commands to install and remove VuePrint, and to install, remove, and configure the VuePrint Screen Saver.

- Install VuePrint** saves current File Manager associations, sets up associations for VuePrint, copies VUEPRINT.EXE and VUEPRINT.HLP to the Windows directory, deletes VUEPRINT.INI from the Windows directory, and installs the VuePrint icon in the Accessories window.
- Remove VuePrint** reverses the above, restoring the system to the original state. The files VUEPRINT.INI, VUEPRINT.EXE, and VUEPRINT.HLP are not deleted and the icon is not removed if the running program is running from the Windows directory.
- Install Screen Saver** installs VuePrint as a screen saver for Windows. VUEPRINT.EXE is copied to VUESAVER.SCR in the Windows directory, and VUEPRINT.HLP is copied to VUESAVER.HLP. VUESAVER.INI is deleted.
- Remove Screen Saver** reverses the above, disabling the Windows screen saver. The files VUESAVER.INI, VUESAVER.EXE, and VUESAVER.HLP are deleted from the Windows directory.
- Configure Screen Saver** lets you specify the options for the VuePrint screen saver. These options are stored in VUESAVER.INI in the Windows directory. Note that any option that can be set up in VUEPRINT.INI can also be put into VUESAVER.INI. The only difference between the two option files is that the default options for the screen saver are different from the default options for VuePrint.
- Test Screen Saver** starts the currently installed screen saver. If you have installed the VuePrint screen saver, it will be started. Otherwise, whatever screen saver that is installed will be started.
- Install Extension** lets you tell the File Manager that a given three-letter file extension is associated with VuePrint. Whenever a file with this extension is double-clicked in the File Manager, VuePrint will be started to display this file.
- Remove Extension** removes an extension that was previously configured, and restores the previous association for that extension. Note that all VuePrint file associations can be removed with the <Utilities|Remove VuePrint> menu item.
- Configure Unzip Utility** lets you specify the name of the MS-DOS utility you want to use for the File|Unzip... command. You can also specify options to be passed to this utility by including them after the MS-DOS file name (with a space inbetween). The default is <pkunzip.exe>.
- Configure Zip Utility** lets you specify the name of the MS-DOS utility you want to use for the File|Zip... command. You can also specify options to be passed to this utility by including them after the MS-DOS file

name (with a space inbetween). The default is <pkzip.exe>.

Configure Zip Info Utility lets you specify the name of the MS-DOS utility you want to use for the File|Zip info... command. You can also specify options to be passed to this utility by including them after the MS-DOS file name (with a space inbetween). The default is <pkunzip.exe -vm>.

Help Menu

The Help menu provides commands for getting help and registering VuePrint.

<i>Contents...</i>	displays the table of contents of this Help file.
<i>Using help...</i>	displays help about the Help program.
<i>About...</i>	displays information about <u>registering</u> VuePrint, and lets you enter a VuePrint serial number.

