VuePrint Help

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Introduction

VuePrint is a Windows 3.1 program that lets you display and print graphics files that use the GIF, JPEG, PCX, DIB, and BMP graphics formats, and play sound files that use WAV, MID, and MCI sound formats. VuePrint supports all graphics displays and printers that operate with the Microsoft Windows 3.1 operating environment, using at least a 386 microprocessor.

The two key features of VuePrint are speed and ease of use. VuePrint is more than twice as fast as most other JPEG viewers, and is able to scale images to full-screen more than five times as fast as other viewers. VuePrint will scale images to fill a window automatically, without distorting the image shape. It has a cropping feature to remove borders from around images, full support for playing sounds and controlling multimedia devices such as CD players and videodisks. While VuePrint has many features, all are integrated in an easy to use menu system.

VuePrint lets you display, print, and play files you select while running the File Manager. It also supports dragging a file from the File Manager and dropping it into the VuePrint window. VuePrint is fully integrated with the Windows Program Manager, giving full control over all options from the command line. It can also be used as a viewer subsystem for other programs such as the Internet Mosaic program.

VuePrint automatically detects the display type, and uses a pattern of dots (dither) on the display when there are fewer colors available than the image requires. If the Auto Dither option is selected, dithering is used when the image uses colors that are not available. Otherwise, dithering is used when the display has fewer than 256 possible colors.   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.   When printing, dithering is only used for images with more than 8 bits per pixel - otherwise the standard dithering provided by Windows is used.

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.

There will be 286 and Win32s versions of VuePrint available in the near future. Check your favorite site for availability.

Registering

VuePrint is distributed as shareware, and may be evaluated without charge for 15 days. VuePrint is available from on-line systems such as America Online, CompuServe, Internet ftp archives, and many BBS systems. Because it is distributed electronically, new releases are free to registered users. You can decide when to upgrade to a new version of VuePrint, and can download this new version at any time.

The $40.00 registration fee can be paid two different ways:

1. 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 an e-mail notifying me that you have registered. To use this service, go to the SWREG area on CompuServe, and register program #1883 (VuePrint). I will respond by e-mail with a permanent serial number for your version of VuePrint.

2. If you do not have a CompuServe account, send your e-mail address with $40.00 in cash or check (any currency is acceptable), to:

Ed Hamrick
4171 E. Rockledge Rd.
Phoenix, AZ 85044-6771

If you include your e-mail address with your letter, I will respond with a serial number by e-mail. Otherwise, it may take some time to respond by surface mail. In case you do not have access to e-mail, or you need a temporary serial number immediately, I have set up a 24-hour phone number 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. 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. (If I am on vacation or out of town, this temporary serial number will disable the registration reminder for a longer period.)

When you register VuePrint, you will receive assistance via e-mail with any problems you may encounter. You will also receive a serial number identifying your copy of VuePrint. This serial number is also valid for VueSaver - a fast JPEG/GIF Screen Saver for Windows 3.1. (A future release of VuePrint will incorporate the functions of VueSaver.)

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). Each release of VuePrint is contained in a single .ZIP file. This .ZIP file contains two files - VUEPRINT.EXE (the program) and VUEPRINT.HLP (the help file).

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.

File Formats

VuePrint reads three types of files:

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

Sound files (.WAV, .MID, .MCI)

Slide Show files (.SLI)

A file with one of the above image file extensions is automatically recognized by the first two bytes in the file. If the first two bytes are not recognized, the software checks to see if the file has an extra 128 byte Macintosh header, and bypasses this header.   For instance, a GIF file with a .DIB extension and a Macintosh header will be read correctly, but a GIF file with a .DAT extension will not be recognized.

Sound and Slide Show files are recognized by their extensions.

VuePrint will read both GIF 87a files and GIF 89a files. 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.

VuePrint reads JPEG (.JPG) files that use the JFIF format.

PCX files that are version 3.0 or less are supported. The CGA color palette is ignored.

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

Standard WAV and MID (MIDI) files are supported. You need an asynchronous sound driver to play them, since MCI commands are used to play them (the PC speaker driver will not work).

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) contain a list of files. This list can contain other .SLI files, which can refer to other .SLI files, and so on (up to four times). A slide show list is also automatically created with you use the File|Open menu to select a single file. A multiple file selection will not automatically create a slide show list.

File Manager

VuePrint can be integrated with the Windows File Manager by choosing the Utilities|Install VuePrint to associate VuePrint with the Image, Sound, 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, 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.

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 - <u>options</u> 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 all Image, Sound, and Slide Show files.

The command line is processed from left to right.   Valid command line <u>options</u> 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 <u>options</u> are the same as those in the VUEPRINT.INI option file, and override the settings in that file. Command line <u>options</u> can be abbreviated, are not case sensitive, and the first one matching the command line option is used. There are two additional command line <u>options</u> that are not used by the .INI file:

    /directory=name
    /print

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 <u>options</u>, the remainder use the same printer <u>options</u>. This lets you do unattended printing of large numbers of image files.

Interrupting

VuePrint has been designed to let you interrupt loading files, since this operation can sometimes take some time. The following menu choices (and their keyboard equivalents) will interrupt the file loading and cause the command to be executed. Other menu choices, keyboard commands, and mouse commands will be executed and then file loading will continue.

> File|Open
> File|Next
> File|Previous
> File|Random
> File|Print
> File|Printer Setup
> File|Exit
> Image|Crop
> Image|Copy
> Image|Delete
> Utilities|Install VuePrint
> Utilities|Remove VuePrint
> (Dropped files from File Manager)

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

Options

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

Option	Default	Min	Max
SoundEnable	1	0	1
SoundSynchronous	0	0	1
ColorDisplay	1	0	1
ColorPrinter	0	0	1
WhiteBackground	1	0	1
ShowComments	0	0	1
ShowHistory	0	0	1
AutoScale	1	0	1
AutoCrop	0	0	1
AutoDither	0	0	1
AutoComments	0	0	1
FillWindow	0	0	1
SaveOptionsOnExit	0	0	1
Rotate	0	0	7
JPEGTwoPass	*	0	1(see JPEG Menu)
JPEGUseDithering	1	0	1
JPEGUseGreyScale	0	0	1
JPEGBlockSmoothing	0	0	1
JPEGPixelSmoothing	0	0	1
JPEGWriteGIF	0	0	1
RunSlideShow	0	0	1
StopWhenDone	0	0	1
ExitWhenDone	0	0	1
DelayImage	5	0	9999
DelaySound	0	0	9999
Brightness	5	1	9
Contrast	5	1	9
FileIndex	0	0	8
XImage	0	0	999
YImage	0	0	999
WImage	1000	1	1000
HImage	1000	1	1000
MImage	0	-1	1
XComments	0	0	999
YComments	667	0	999
WComments	1000	1	1000
HComments	333	1	1000
MComments	0	-1	1
XHistory	0	0	999
YHistory	667	0	999
WHistory	1000	1	1000
HHistory	333	1	1000
MHistory	0	-1	1
XPrinter	0	0	999
YPrinter	0	0	999
WPrinter	1000	1	1000
HPrinter	1000	1	1000
MPrinter	0	-1	1

The options for controlling window position and the layout on the page when printing 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 or printed page.   The option beginning with M is -1 for a minimized window, 0 for a normal window, and 1 for a maximized window (it has no effect for printouts).

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 and printing an image.   The right mouse button is used to move a zoomed-in image within the window (youll 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 shape of the selected image is considerably taller than the window (or wider than the window), the image will only be zoomed in height (or width).

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

Keyboard

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

In addition, 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 screen sized jumps.

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

Hints

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 Setting 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 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.

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.

You do not have to wait till the screen repaints before starting another command.   The screen repaint will be postponed if you press a key or use the mouse.

Limitations

VuePrint reads <u>GIF</u>, <u>DIB</u>, <u>BMP</u>, and <u>PCX</u> files that have a maximum width of 4096.   <u>JPEG</u> files can have a maximum width of 2048.   All image files can have a maximum height of 6000. An image can take up to 75% of the free memory, 50% for two-pass JPEG decoding.   If an image cant fit into the available memory, every other pixel and line is dropped until it fits. The JPEG routines will use an additional 1/3 of the available memory when doing two-pass decoding, and will use temporary files for additional storage.

If youre using virtual memory, the maximum amount of free memory that VuePrint will use is 3 million bytes.   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 <u>File|Open</u> is limited to 16384 characters.

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

Cropping only works when there are 8-bits or less per pixel.

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].

The <u>Utilities|Install VuePrint</u> and <u>Utilities|Remove VuePrint</u> options sometimes do not successfully set up and remove the VuePrint icon.   I have not figured out how to make this more reliable yet.

Upgrading

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

America Online: Choose the Go To|Keyword... option and enter Graphics.   Then select Recommended Utilities.

CompuServe: Go to the GRAPHSUPPORT Forum, Library 3 (GIF Viewers), and download VUEPRI.ZIP.

Internet: anonymous ftp to ftp.cica.indiana.edu, pub/pc/win3/desktop, vueprixx.zip (where xx is the version number)

Acknowledgments

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

GIF, Graphics Interchange Format, and CompuServe are trademarks of CompuServe, Inc., an H&R Block Company.

Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation.

File Menu

The File menu provides commands to open files, control the display of informational windows, control slide shows, print images, and exit the program.

Open opens an image or sound 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 files in the same directory are added to the slide show list.

Show Comments displays a window containing any 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.

Run Slideshow controls the running of slide shows. The next file in a slide show is either the next, previous, or a random file in the list, depending on how the current file was selected. The delay between image files is controlled by the Image|Delay option, and the delay between sound files is controlled by the Sound|Delay option.

Stop When Done stops running the slide show when the last file in a slide show is reached.

Exit When Done exits VuePrint when the last file in a slide show is reached.

Next loads the next file in the Slide Show list.

Previous loads the previous file in the Slide Show list.

Random loads a random file from the Slide Show list.

Print prints the current image.

Printer Setup displays a printer setup dialog box.

Exit exits VuePrint.

Image Menu

The Image menu provides commands to manipulate the current image.

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   crops 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.

Dimmer   decreases the overall brightness of the image.

More Contrast   increases the contrast (gamma) of the image.

Less Contrast   decreases the contrast (gamma) of the image.

Delay   lets you enter the minimum delay between successive images in a slide show.

Reset   resets the screen to default zoom factor, rotation, brightness, and contrast.

Copy   lets you make a copy of the current image file.

Save As Bitmap...   saves the currently selected image (rotated and clipped) as a bitmap (BMP) file.

Save As Wallpaper saves the currently selected image (rotated, clipped, and dithered) to the Windows directory as.VUEPRINT.BMP.   The image is scaled up to the size of the screen if the AutoScale option is enabled.   This command then sets VUEPRINT.BMP as the desktop wallpaper.

Delete   lets you delete the current image file.

Sound Menu

The Sound menu provides commands to manipulate the currently loaded sound. Note that the keystroke for each of these options is similar to their counterpart in the Image menu (the Ctrl key is added).

Enable	enables playing sounds.
Synchronous	enables playing sounds synchronously. This is useful if you only have a sound driver for the PC speaker, which only allows playing sounds synchronously. Only .WAV files will play using this option.
MCI Command	lets you enter an <u>MCI command</u>.
Louder	increases the volume.
Softer	decreases the volume.
Delay	lets you enter the minimum delay between successive sounds in a slide show.
Replay	replays the current sound.
Copy	lets you make a copy of the current sound file.
Delete	lets you delete the current sound file.

Options Menu

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

Color Display   enables displaying images in color.

Color Printer   enables printing images in color.

White Background sets the image background to white.

Auto Scale   automatically scales small images to fill the window.

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.

Fill Window   removes the border and menu bar from the window.   You can toggle this on and off by pressing the Escape key.

Save Options   save the current setting of all <u>options</u> in VUEPRINT.INI.

Restore Options   restore all <u>options</u> from VUEPRINT.INI.

Save Options on Exit   save the current setting of all <u>options</u> in VUEPRINT.INI when the program exits.

Default Options   set all <u>options</u> to their default values.

JPEG Menu

The JPEG menu provides commands to control the decoding of <u>JPEG files</u>.

Two Pass 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.   If the display has 256 (or fewer) colors, the display will be dithered (made up of a pattern of dots).   Note that only 8-bits per pixel will be kept in memory if the Use Grey Scale option is selected, or if the JPEG file only has one color component.

Use Dithering enables using Floyd-Steinberg dithering with the two-pass algorithm.

Use Grey Scale enables converting the JPEG file to 8-bits per pixel of grey scale data.

Block Smoothing causes the 8x8 blocks to be smoothed before transforming them from the frequency domain.

Pixel Smoothing causes the 8x8 blocks to be smoothes after transforming them from the frequency domain.

Write GIF causes a GIF file to be written for every JPEG file that is read.   When this option is selected, the two pass algorithm is always used.

Utilities Menu

The Utilities menu provides commands to install and remove VuePrint.

Install VuePrint   saves current <u>File Manager</u> associations, sets up associations for VuePrint, copies VUEPRINT.EXE and VUEPRINT.HLP to 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.EXE and VUEPRINT.HLP are not deleted and the icon is not removed if the running program is running from the Windows directory.

Help Menu

The Help menu provides commands for getting help and <u>registering</u> VuePrint.

Contents   displays the table of contents of this Help file.

Using Help   displays help about the Help program.

About   displays information about <u>registering</u> VuePrint, and lets you enter a
                      VuePrint serial number.