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Thank you for purchasing TEMPRA PRO. This addendum describes the installation instructions necessary to use TEMPRA PRO and any changes to the TEMPRA PRO product since the manual was printed.

Tempra Pro Installation

- The TEMPRA PRO program consists of two floppy disks (Disk 1 and Disk 2). TEMPRA PRO can't be run directly off the floppy disks and must be installed on a hard disk. Make sure your mouse driver (usually MOUSE.COM) has been loaded in your CONFIG.SYS or AUTOEXEC.BAT on boot-up. TEMPRA PRO doesn't load the mouse driver for you. To install TEMPRA PRO after you have started your computer, do the following:
  - 1. Go to the root directory by typing CD\ and [Enter]. Check that you have at least 515,120 bytes of memory available to run TEMPRA PRO.
  - 2. Place the Install, Program, Utilities Disk 1 in the A: or B: drive and start the installation procedure by typing **A: INSTALL** (or **B: INSTALL**) and [Enter]. A screen appears designating the default directory as **TEMPRA**. You can either accept this default or customize it to place the TEMPRA PRO files in another directory.
  - 3. After the installation has been completed, a TEMPRA PRO configuration menu appears for you to select the video display card you're using. When you've selected it, the program automatically starts. Remove and store all the original disks in a safe place.
  - 4. To start TEMPRA PRO from DOS, go to the TEMPRA PRO directory (C:\TEMPRA) and type **TEMPRA**.

Turbo Charger Feature	The Main Menu Bar in TEMPRA PRO v3.0 contains an extra button at the top left corner labeled "T" (located next to the Remove Menu button). Selecting the "T" reveals a message that this button is for use with the TEMPRA turbo charger feature, which is available separately from TEM-PRA PRO. The turbo charger feature increases the speed of TEMPRA 2 to 5 times. See the reference manual appendix for more information about this additional TEMPRA feature.

- Input Support TEMPRA PRO now supports these additional graphics/display boards: XGA Display, S3 VGA chip (used in the Orchid Fahrenheit board). Also, TEMPRA now supports color input from the Microtek series scanners, as well as video capture from the following cards: DigiView from Video Associates, ComputerEYES/RT (PAL) from Digital Vision, IEV VIP-8800 frame grabber from IEV International, Inc., and the SNAPplus from Cardinal Technologies.
- Quick Load Quick Save The Quick Load and Quick Save buttons in the Disk menu provide complementary functions. The Quick Save button saves the current canvas. The Quick Load button restores an image that has been Quick Saved. The Quick Load button is not active in TEMPRA until Quick Save is used. The Quick Load and Quick Save combination provides a method of simulating the Undo function if there is too little memory for Undo. It provides the user with a means to quickly save interim steps as an image is edited. The Quick Load and Quick Save combination is not a substitute for saving an image with the Files menu. Any image that is saved using Quick Save will be lost when you exit TEMPRA unless you save the images to disk using the Files menu.
- SupportedTEMPRA PRO now supports three new file formats: .PCC, .BMP, and .EPS.FileYou can use the .PCC format to save clippings for use in TEMPRA SHOWFormatsas sprites. Sprites in TEMPRA SHOW need a black border or a border that<br/>is the first color on the palette to move across the screen in TEMPRA SHOW<br/>without leaving color behind. This color is called the "transparent color" in

both TEMPRA SHOW and TEMPRA PRO. The .BMP file format is a Microsoft Windows 3.0 format. Images saved in the .BMP format are usable as the background "wallpaper" in Windows 3.0. The .BMP files saved by TEMPRA PRO are 8-bit-per pixel files (256 colors). TEMPRA PRO now writes to an .EPS (Encapsulated PostScript) file format. TEMPRA PRO does not load (read) .EPS files. The .EPS files are always 24 bit (16 million colors).

FileThe File Information box in Disk menu the allows you to previewInformationthumbnails of image files without actually opening the files.

Canvas Rotate in the Canvas menu allows you to change the orientation of an entire canvas from landscape to portrait. Rotation happens on the actual image file as it is stored on your hard disk. It's not necessary to see all the image on screen in order to rotate the image. There are four choices available. **Right 90** rotates the image 90 degrees clockwise. Left 90 rotates the image 90° counterclockwise. Turn Over rotates the image 180° so it is upside down. Mirror reverses the image from left to right. An image that has been rotated can be returned to its original state by applying the complementary rotation. A rotated canvas can't be "unrotated" using Undo.

Set to The Set to Screen button in the Canvas menu causes the current screen size to become the current canvas size. The canvas can be larger or smaller than the screen when this button is selected, meaning a small canvas will be made larger (to match big screens) and large a canvas made smaller (to match small screens). In both cases, the canvas size becomes the size of the screen. If the canvas is larger than the screen area, the canvas area not visible on the screen is lost. If the canvas is smaller than the screen, the blank area around the canvas becomes a part of the canvas.

New Filters	TEMPRA PRO now has four new filters for enhancing and manipulating images: Stain, Emboss, Contrast, and Pixelate. The Stain filter allows you to add a stain of color over an image while keeping the "texture" of the image. Stain is the equivalent of placing a colored piece of plastic film over an image. The Emboss filter produces an embossed look to an image. The embossing emphasizes the differences in luminance between adjacent pixels and removes the color in an image. This filter is especially effective on black and white images. The Contrast filter emphasizes the contrast in pixels. Lighter colored pixels have some of their color and are shifted toward white, while darker colored pixels are shifted toward black. The Pixelate filter provides an enhanced-pixelized look to an image.
Filled Geometry Shapes	The Curve and Spline shapes in the Geometry menu can now be filled. The area filled is between the two endpoints of the curve and from endpoint to endpoint of the spline. Also, the Fill feature, previously located in the Ink menu, is now located in the Geometry menu.
Polygon Perspective	The Polygon Perspective tool in the Transformation menu allows you to use the polygon to clip an area of an image up to 64,000 sides and stretch it with a perspective effect.
International Language Support	TEMPRA PRO now provides international language support through an external utility called TEMPRA Translator. German, French, and Italian will be the first to be offered. Each language can be modified further to accommodate local terminology. Contact Mathematica, Inc. for informa- tion about this utility.
TEMPRA Wand	The TEMPRA Wand feature, located in the Geometry menu, lets you create a matte on your image into which you can apply a color, filter. or pattern. It acts as an enhanced fill feature. The matte is distinct from the mask feature in that the matte is the area in which you will apply paint, whereas a mask is the area protected from being painted in. The TEMPRA Wand feature has three drawing tools for defining and clearing mattes: four pens, a polygon tool, and the wand. You can create the matte as an outline, in a neutral blue



color, or with the actual color or pattern you plan to put in the matte. You can modify the matte as much as you want to before permanently applying the paint color or pattern. The more you experiment with the wand, the more you will understand its strength. *Everything you do to create the matte is temporary until you actually paint in the matte using the Apply button*.

#### Pen

The row of pens across the top of the menu are the first four pens available in the Pen menu. You can change the pens in the Wand menu by changing the pens in the Pen menu. When one of the pens is active, you can create or clear matters in the freehand mode (similar to using the Freehand tool in the Geometry menu).



#### Polygon

The Polygon button allows you to create a polyonal-shaped matte on the screen. If you press and hold down the Select button on the mouse while moving it, you can create an unrestricted polygon. To make straight-lined polygons, press and release the Select button and then move mouse for each line you want to make. To fill the polygon with the paint or neutral color, press the Cancel button.



#### **TEMPRA Wand**

The TEMPRA Wand button defines the matte based on color or gray-scale values. The values are determined by the number you type in the Sensitivity box that appears when you select this button. The higher the sensitivity, the broader the range of colors that will be selected. If the sensitivity is set to 0, only one color is selected and the wand acts as a seed fill. If the sensitivity is set to 100, nearly all the colors on the screen are selected. Using the wand, it is possible to select all the blues in the sky of an image. Simply touch the wand in the area of the image you want to define as a matte. You don't need any other draw tools with the wand, and it works only with the neutral blue or paint mattes (not outlined mattes). You can't use the Clear Matte or Eraser with the wand.

#### **Clear Matte**

The Clear Matte button clears the matte you've created from the image, allowing you to create a new matte or pick up the matte from the last point. Once you've applied the paint to the canvas, you can't clear the matte. The Undo button in the Main Menu will not clear any mattes created using the TEMPRA Wand.



#### Reverse

The Reverse button reverses the matte. The reversal makes the matte areas unmatte and the unmatte areas matte.



#### Outline

The Outline button shows an outline of the matte as a black line with a white center. Outline works only with the Polygon draw tool.



#### **Blue Matte**

The Blue Matte shows a neutral blue color in the matte, which is the area of the image where the paint or pattern will be applied.



#### Paint Matte

The Paint Matte shows the actual color or pattern in the matte. This allows you to see if the effect is what you're looking for before you apply the paint to the matte. *The paint is not permanent until you apply it using the Apply button*.

#### Disk



The Disk button brings up another menu for you to save the matte as a mask. The newly created mask can be used later in the Mask Editor. You can load a mask created in the Mask Editor or one saved from the TEMPRA Wand menu. The Overlay button allows a mask that was created earlier to be loaded on top of the current matte, combining the two on the screen.

# ESC

**Escape** The Escape button stops the use of the TEMPRA Wand and returns you to the Main Menu. The changes on screen are not saved and paint is not applied unless you've selected the Apply button.

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### Eraser

The Eraser lets you clear the matte from specific areas of the image using a pen or polygon draw tool.

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# Pencil

The Pencil lets you define a matte on specific areas of the image using a pen or polygon draw tool.



# Apply

The Apply button paints the current color, pattern, or filter to the matte you've defined. Once you select Apply, the matte becomes permanent and neither the Clear Matte nor the Main Menu Undo button can remove it.

#### Sharp Scanners

For best results when using a Sharp scanner with TEMPRA PRO, read the following information. It is assumed you have your TEMPRA PRO, National Instruments and Sharp scanner manuals handy for reference.

- 1. Run IBCONF. When the cursor is over GPIB0, press F8 to modify it. Make sure the handler type matches the board in use. Set Interrupt setting to None. Set DMA channel to None.
- 2. Save the changes from IBCONF. Reboot the computer. Run IBTEST and IBDIAG. If both have worked, proceed to step 3.
- 3. Plug in the scanner and start scanning!

#### Troubleshooting

If a "Scanner Not Responding" error appears when you touch the menu to select a scanner:

- a) GPIB is not loaded from the CONFIG.SYS
- b) IBCONF name is wrong.

If you encounter Scanner Error 14 during a grad2 scan:

- a) Scanner isn't responding.
- b) Scanner is powered off.
- c) Scanner switches are set wrong.
- d) Scanner cables are not connected.

 $If the scanner hangs or you encounter Scanner Error 0 during SC\_GETLINE:$ 

a) Interrupts or DMA are still enabled. They must be disabled.

If you encounter Scanner Error 6 during SC\_GETSIZE:

a) Cables need to be tightened. Only a partial connection has been made.

If scanned images come in skewed:

a) Repeat addressing must be set to No in the IBCONF setting in the actual device.

In general, all timeouts should be at least 10 seconds (this is the default).