Seven Hills
Software

SuperConvert

Congratulations on your purchase of SuperConvert! Be sure to complete and return the postage-paid registration card so we can notify you about other new products and updates to this product as they become available.

Read this manual to learn all about using SuperConvert to its fullest. The manual is divided into three main sections:

— The *Getting Started* section guides you through one-time steps, including making a working copy of SuperConvert.

— The *Guided Tour* section teaches you how to use SuperConvert in easy steps.

— The *Reference* section contains detailed information about SuperConvert.

In addition, the *Appendices* section contains "Tips and Suggestions" and documentation for "Out To Launch," a simple program launcher that's included free with SuperConvert.

Enjoy!

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About Seven Hills Software

No Copy Protection

We don't believe in copy protection—all it does is impair the honest user's ability to use software to its fullest. We strive to provide high quality products at reasonable prices. We hope you will support our efforts by not allowing your family or friends to copy this software.

Postage-Paid Registration

Be sure to complete and return the postage-paid registration card so we can notify you as new versions of this program become available. Updates are always reasonably priced.

Questions and Comments

We always welcome feedback—if you have any questions, or suggestions for improving this product, please let us know. In addition, we would like to hear your ideas for new programs.

Contacting Us

For orders and product information call (800) 627-3836 or (904) 575-0566 from 9 a.m. to 5 p.m. ET, Monday-Friday.

For answers to technical questions about a specific product call (904) 576-9415 from 11 a.m. to 5 p.m. ET, Monday-Friday.

Contact us electronically for fastest written communication:

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About SuperConvert

SuperConvert™ is *the* link between your IIGS and virtually any graphic! With it you can convert graphics from Apple II's, Macintosh, IBM, Atari ST, Amiga, Commodore 64/128, and computer-independent formats. SuperConvert also includes several "extra" features: generate "font sample" pages, "font key" charts, print posters, and make any image appear as your "desktop background."

SuperConvert was written by Jason Harper. Since the first release of SHRConvert in 1987, Jason has been continually improving his graphics conversion program. SuperConvert is the result of his hard work and dedication to the Apple IIGS community.

Our goal was to make SuperConvert a very useful tool and to make it valuable to you personally. By making a quality program available at a reasonable price and by not copy-protecting the disk, we think we have succeeded. We hope that you support our efforts and encourage future updates and products by not allowing your family or friends to copy SuperConvert. To borrow a phrase, "Just say no."

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Getting Started

We know you are anxious to start using SuperConvert, but please read this section first because it leads you through several important steps which you need to do only once:

- Learning conventions and terminology
- Getting your IIGS ready to start a IIGS-specific program
- Making a working copy of SuperConvert

After completing the *Getting Started* section, you will use the *Guided Tour.* It teaches you about SuperConvert by showing you how to use several of its features.

Following the tour is the *Reference* section, which covers every aspect of SuperConvert. It is the best place to look when you need added information or help with a particular feature.

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Things You Need To Know

Requirements

To use SuperConvert you need:

- An Apple IIGS with at least 1MB of memory
- One 3.5" disk drive
- SuperConvert includes GS/OS—the "disk operating system." GS/OS requires internal ROM version of at least 01—when you turn on the computer, if the bottom of the screen does not show a version number, contact your authorized Apple dealer for an upgrade.
- To print, you need any printer that works with a standard IIGS printer driver. Included are printer drivers for the Apple ImageWriter I, II, and LQ, and Epson FX-compatible printers. If you wish to print to a LaserWriter, we assume you have the appropriate printer drivers available to you. If you wish to print to a Hewlett-Packard DeskJet or LaserJet, you can purchase and use the Independence printer driver package from Seven Hills Software.

Keys on Your Keyboard

Keys on the keyboard are referred to by the name printed on them (*Delete*, *Option*, *A*, etc.). The Command key is shown as ⌘.

Steps

Steps you should follow are indented and numbered. For example:

1. Use SuperConvert.
2. Convert virtually any graphic to your IIGS!

Mouse Terms

This manual uses four terms to describe the different ways you can use the mouse:

Clicking means quickly pushing down and releasing the mouse button while the mouse remains motionless. One use of clicking is to select a command.

Double-Clicking means quickly clicking twice. Double-clicking is commonly used as a shortcut for some action. For example, double-clicking on a folder opens that folder.

Pressing means holding the mouse button down while the mouse remains motionless. The most common use is pressing on a scroll bar's arrow to cause the document to scroll until the mouse button is released.

Dragging means holding the mouse button down, moving the mouse to a new position and finally releasing the mouse button. Common uses are choosing a menu item and moving or resizing a window.

Preparing Your Apple IIGS

There are several things you must do in order to use any software that is written specifically for the Apple IIGS. These settings are common so it is likely that your IIGS is already prepared to run SuperConvert.

Control Panel Settings

The first step is connecting the mouse, then using the Control Panel to correctly set various options:

1. While the computer is off, plug the mouse into your keyboard.
2. Turn the monitor on.
3. Hold down the Option key while you turn on the computer's power switch.
4. When you see several choices on the screen, release the Option key.
5. Press 1 to enter the Control Panel.

Slot Settings

Enter the Slots display:

1. Press the Up Arrow until Slots is highlighted, then press Return.

Slot 4: Make sure that Slot 4 indicates you are using the Mouse Port:

2. Press Down Arrow until Slot 4 is highlighted.
3. If Slot 4 reads Your Card, press Right Arrow to change the option to read Mouse Port.

Startup Slot: If you choose, you can tell the IIGS to start loading programs from the 3.5" disk drive:

4. Press Down Arrow until Startup Slot is highlighted.
5. Press Right Arrow until the desired slot number appears (if you have the 3.5" disk connected to the back of the IIGS, the number is 5).

Save the Slot Settings:

6. Press Return to save the current settings for the Slots display.

RAM Disk Setting

RAM disks use memory that could be used by the program. SuperConvert needs 1MB memory to operate, so verify that there is at least this much memory free for it to use:

1. At the Control Panel, press Down Arrow until RAM Disk is highlighted, then press Return.
2. Press Down Arrow to highlight Maximum RAM Disk Size (or "Select RAM Disk Size" on the newest IIGS model).
3. As a general rule, IIGS-specific software works better with more memory available to it. Thus, we suggest setting the RAM Disk size to ØK. If the Maximum RAM Disk Size needs to be reduced, press Left Arrow until its size is acceptable.
4. Press Return to save the current RAM Disk settings.
5. If you changed the Maximum RAM Disk Size, turn the computer off. *NOTE: Changes to the RAM Disk display don't take effect until the computer is turned off (Ö-Control-Reset does* ***not*** *work; you* ***must*** *turn the computer off if you changed this setting.). If you turn the computer off, wait 15 seconds before turning it back on.*

Other Settings

This manual assumes that you already have your printer connected and working with the Apple IIGS. If not, refer to the documentation that came with your printer to connect it and to set any necessary Control Panel settings.

A popular printer configuration is an ImageWriter printer directly connected to the Printer Port on the Apple IIGS. For this configuration, the control panel setting for Slot 1 should be Printer Port and every printer port setting should have a checkmark beside it.

Check Your NDAs

New Desk Accessories are stored in the System/Desk.Accs folder of your startup disk. When you start SuperConvert each New Desk Accessory sets aside memory for its own use; memory acquired by a New Desk Accessory cannot be used by SuperConvert. If you have just 1MB memory you should consider removing any installed NDAs to give SuperConvert the most memory possible.

Making Working Copies

Before proceeding, protect the original disks by making sure that they are write-protected! Look at the hole in the upper-right corner of each of the original disks. The disk is write-protected if you can see through the hole. If you can't see through the hole, slide the tab so you can.

Whenever you purchase software you should make a working copy of each original disk. *NOTE: SuperConvert is not copy-**protected**, but it is copy**righted**. Please do not make copies for your family or friends—every illegal copy you see is a vote **against** friendly software and **for** copy-protection and higher prices.*

After making your working copies (either on a hard drive or on 3.5" disks) you should store the original disks in a safe place so if a problem ever develops with a working copy another can be made from the original disk. If a problem ever develops with an original disk, contact Seven Hills Software for replacement information.

Installing Onto 3.5" Disks

This section describes installing SuperConvert onto 3.5" disks. If you are installing SuperConvert onto a hard disk drive, skip to the section titled "Installing Onto A Hard Disk Drive."

Starting the Computer

1. Insert the disk labeled *Startup Disk* into the startup disk drive.
2. Turn on the monitor and computer (if the computer is on already, hold Ó-Control down and press Reset). The 3.5" disk drive will come on and begin loading our Out To Launch program launcher. *NOTE: If you did not set your 3.5" disk drive to be the startup slot, the computer will try to start up from some other disk drive. If you get the message "Check Startup Device," hold Control and press Reset. At the prompt type* **PR#5** *(assuming your 3.5" disk is in slot 5) and press Return.*

Initializing Disks

Before proceeding, make sure you can see through the hole in the upper-right corner of the original disks!

To make working copies of SuperConvert on 3.5" disks, you need two initialized (but otherwise blank) 3.5" disks.

To initialize the disks we'll use the Disk Initializer desk accessory. Disk Initializer is provided free with SuperConvert, and can be used with other GS-specific programs that support NDAs.

To use Disk Initializer,

1. Choose Disk Initializer from the menu (move the pointer over the (Apple) menu, press and hold down the mouse button, drag down to highlight Disk Initializer, then release the mouse button).

The following dialog box appears:

Disk Initializer dialog box

The scroll box displays the slots and drives that have a 3.5" or 5.25" disk drive. To initialize a disk,

2. Click on the slot/drive you want to use for initializing (usually 3.5" disk drives are located in slot 5). *NOTE: For the best speed performance you should initialize the disk in the same slot and drive that the disk will be used in. For example, if you are initializing a startup disk then you should initialize the disk in the startup disk drive. If you are initializing a data disk then you should initialize the disk in the data disk drive.*
3. Insert a blank disk.
4. Type the name for the new disk (the first disk is named "Startup"). The name cannot be longer than 15 characters, and it must begin with a letter and contain only letters, numbers, and periods.
5. Click the Initialize button. *NOTE: This button is active only if a valid disk name is entered.*

After you click Initialize, the disk in the slot and drive you specified is checked. If the disk is blank it will be initialized immediately. If the disk is not blank you will be asked to confirm your decision to initialize it. **Never initialize an original disk!**

After the disk is initialized it will be ejected and you will be told whether the initialization was successful. If initialization fails for a disk, discard that disk and use another one. If initialization was successful, apply a disk label and write the appropriate name on it.

Repeat steps 2-5 to create one disk with each of the following names:

☑ Startup (done in step 4)

☐ Program

After you have initialized and applied a label to the two disks, click Cancel to return to the Out To Launch window.

Copying the Original Disks

Before proceeding, make sure you can see through the hole in the upper-right corner of the original disks!

Apple's "Finder" is a program that lets you do "housekeeping" tasks, such as copying disks and deleting files. We'll use the Finder to make working copies of the supplied disks.

1. Click the Launch Other button in the Out To Launch window.
2. Select "Finder" and click Open.

When the Finder is finished loading, you will see a blue desktop with a menu bar at the top of the screen, the Startup.Disk icon at the top-right of the screen, and a Trash icon at the bottom-right of the screen.

Now we'll use Apple's Finder to make an exact copy of each of the supplied disks:

1. Insert the disk you want to copy *onto* (one of the disks that you initialized and hand-labeled). The first "destination disk" is the disk hand-labeled *Startup*, so insert that disk (if you have only one 3.5" disk drive, you will have to eject the original disk to make room for it).
2. Insert the disk you want to copy *from* (one of the original disks supplied with SuperConvert). The first "source disk" is the original disk labeled *Startup Disk*, so insert that disk.
3. Drag the original disk icon onto the hand-labeled disk icon: Position the arrow pointer over the original disk icon, hold down the mouse button, drag onto the hand-labeled disk icon (it turns black) then release the mouse button. The first copy is made by dragging the Startup.Disk icon onto the Startup icon.

4. The Finder asks if you want to replace the contents of the destination disk with the contents of the source disk. Click OK to proceed. *NOTE: If you get a message stating that the destination disk is write-protected, you are trying to copy in the wrong direction—click the Cancel button and go back to step 3, making sure you drag the source disk icon onto the destination disk icon.*

During the copy process the Finder may ask you to insert a particular disk. Find the desired disk, insert it and click OK to continue.

When the Finder is finished copying the disk,

5. Drag the source disk icon onto the Trash icon. This ejects the disk and removes its icon from the desktop.
6. Drag the destination disk icon into the Trash to eject it and remove its icon from the desktop.

Repeat steps 1-6 for each of the following disks:

	Drag:	**Onto:**
☑	Startup.Disk	Startup
☐	SuperConvert	Program

Removing the Finder

In order to create some extra disk space on *your* Startup disk, you might want to remove the Finder:

1. Insert your disk hand-labeled *Startup* into a drive.
2. Click on the Startup icon to select it, then choose Open from the File menu.
3. Drag the Finder icon into the Trash.
4. Drag the Startup icon into the Trash to eject the disk and remove its icon from the desktop.

NOTE: Disk Access from Seven Hills Software is a great alternative to the Finder. Disk Access is a new desk accessory (NDA) that lets you do everything the Finder does, but from within the program you are using. That means you don't have to quit just to copy, delete, or rename a file! Disk Access even includes features that the Finder doesn't, including finding a file by name and showing the contents of any file.

Quitting the Finder and Shutting Down

Let's quit Apple's Finder and return to Out To Launch:

1. Choose Shut Down from the Special menu.
2. Click to select the "Return to launching application" option.
3. Click the OK button to return to Out To Launch.
4. When Out To Launch appears, choose Shut Down from the File menu. *NOTE: See Appendix B for more information about using Out To Launch.*

Skip to the *Guided Tour* section to begin using SuperConvert.

Installing Onto A Hard Disk Drive

Installing SuperConvert on a hard disk drive is just a matter of copying some files from each of the supplied disks to your hard drive. This section describes which files to copy and where to put them. To begin, start up the computer with your hard drive, then launch Apple's Finder.

Because you have a hard drive, we assume you are familiar with file management and using the Finder, so that is not covered in-depth here. If you need more information about the Finder, refer to the manuals that came with your Apple IIGS.

Installing SuperConvert

On your hard disk drive, create a folder called SuperConvert.

Insert the disk labeled *SuperConvert* into a drive and open it. Select all the files in the window, then drag them onto the SuperConvert folder icon that is on your hard drive.

After the files have been copied, drag the SuperConvert disk icon into the Trash to eject it and remove it from the desktop.

Open the SuperConvert folder, then open the Icons folder. Drag the SC.Icons file into the main Icons folder on your hard drive. Finally, drag the empty Icons folder into the Trash.

Desk Accessories

Desk Accessories are stored in the System/Desk.Accs folder of your hard drive.

NOTE: SuperConvert has been tested extensively. If you experience strange problems with SuperConvert, remove all desk accessories, then add them back one at a time to see if a particular accessory is causing the problem. If the problem still exists with no accessories installed, please send a report to Seven Hills' technical support.

We have provided a new desk accessory named "Disk Initializer" that lets you initialize 3.5" and 5.25" disks from within a program like SuperConvert. To install this onto your hard drive, first open the System folder on your hard drive and locate the Desk.Accs folder. Next, insert the disk labeled *Startup Disk*, open the System folder, then open the Desk.Accs folder on that disk. Finally, drag the Initializer.NDA icon into the System/Desk.Accs folder on your hard drive.

After you have copied the Disk Initializer, drag the Startup.Disk icon into the Trash to eject it and remove it from the desktop.

Guided Tour

The *Guided Tour* section guides you through several SuperConvert features. Complete information about each SuperConvert feature can be found in the *Reference* section.

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Using SuperConvert

Starting the Program

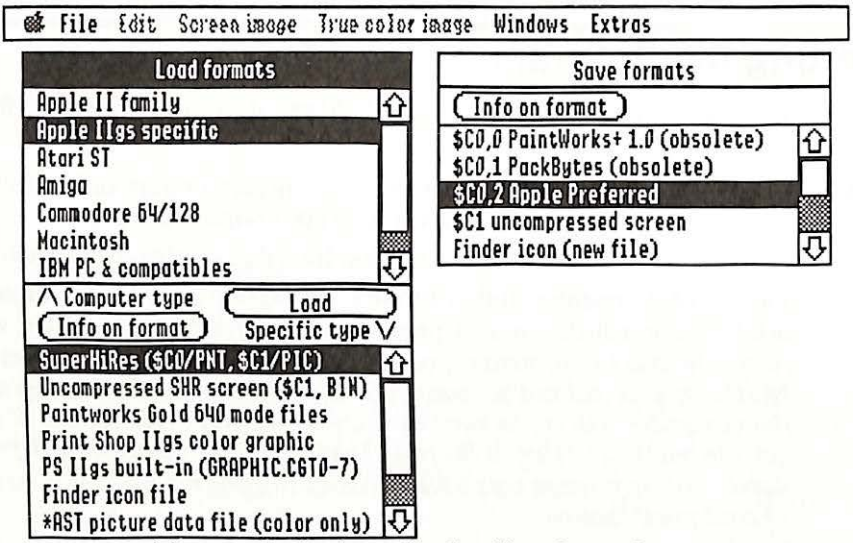
If you installed SuperConvert on a hard drive, start the computer then open the SuperConvert program.

To begin using the working copy of the 3.5" SuperConvert disks, follow these steps now (and whenever you want to start SuperConvert):

1. Insert the disk hand-labeled *Startup* into the startup disk drive.
2. Turn on the monitor and computer (if the computer is on already, hold Ó-Control down and press Reset). The 3.5" disk drive will come on and begin loading our Out To Launch program launcher. *NOTE: If you did not set your 3.5" disk drive to be the startup slot, the computer will try to start up from some other disk drive. If you get the message "Check Startup Device," hold Control and press Reset. At the prompt type* `PR#5` *(assuming your 3.5" disk is in slot 5) and press Return.*
3. When the Out To Launch program appears, click the Launch Other button.
4. Insert the disk hand-labeled *Program* (if you have only one 3.5" disk drive you'll need to eject the *Startup* disk first).
5. Select SuperConvert and click Open.

If you have only one 3.5" disk drive you will be prompted to switch disks as SuperConvert is loading. When you are asked to insert a particular disk, insert it and click OK.

After the program is loaded, you'll see SuperConvert's menu bar at the top of the screen and two of its windows on the desktop:

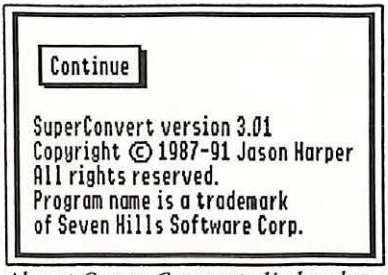


The screen display after loading SuperConvert

Checking the Version Number

To check the version number of the SuperConvert program you are using:

1. Choose About SuperConvert from the (Apple) menu.



About SuperConvert dialog box

2. When you are done looking at the dialog box either click Continue or press Return.

Converting A Screen Image

There are two types of images that SuperConvert works with: screen images and true color images. Screen images are those that can be displayed normally on the IIGS screen; true color images are those that have a greater resolution or color range than the IIGS can normally display. For this part of the *Guided Tour* section we will use a screen image as a basis for our conversions (true color image formats begin with an asterisk, screen image formats do not).

The graphic we're going to convert originally existed on the Atari ST. We have already transferred the file to a IIGS disk, but it is not usable because the file's internal structure is only understood by some Atari programs. We will use SuperConvert to load and convert this graphic, then save the final image to disk in a format that will be usable by most IIGS-specific programs.

Loading

To load the graphic:

1. In the Load Formats window we must select the computer and specific format of the original picture. In this case, first select the "Atari ST" computer type, then select the specific format of "Neochrome (.NEO)".
2. Choose Load & Convert from the File menu, or click the Load button in the Load Formats window, to select the graphic to load.
3. Open the Samples folder and select the file called "Big.Gorilla.NEO".
4. Click Accept and the image is loaded, converted, and displayed on the IIGS screen.
5. When you are done looking at the image, click the mouse or press a key on the keyboard to display the main SuperConvert screen. The loaded screen image appears in a window at the lower-right of the screen.

Viewing

The graphic can be viewed in a variety of ways by choosing the following options from the Screen Image menu:

1. Choose View Full Screen to see the full screen graphic. *REMEMBER: When you're done viewing the graphic, click the mouse button or press a key on the keyboard to continue.*
2. Choose View Half Size to see the graphic at half size. This is very useful for viewing graphics that are larger than a single screen.
3. Choose View X4 Magnified to expand the image to four times its actual size. This is useful for viewing details that you might not otherwise see. Dragging the mouse scrolls the image so you can see different parts of it. Click the mouse button or press a key on the keyboard to continue.

Graphic Modes

Let's look at the image another way:

1. Click in the Screen Image window to activate it (the title bar will darken, and the close box and zoom box will appear).
2. Click the zoom box to expand the window to be full-screen size.

   Yikes! The image that looked fine just a minute ago now looks awful! Why does this happen, and how can we fix it?

There are two graphic screen modes on the IIGS: 320 mode and 640 mode. There are two basic differences between these modes:

- Resolution: 320 mode provides a screen that is 320 pixels (dots) wide, while 640 mode provides twice that many pixels wide (both screens are 200 lines tall).
- Color Range: 320 mode provides a large "palette" of colors that can be used for detailed shading and more realistic pictures, while 640 mode has a very small palette of colors.

When a IIGS-specific program is written, a choice is made whether it will work in 320 mode, 640 mode, or both. This choice is based on what type of program it is: Games usually work in 320 mode because highly-detailed, realistic graphics are possible. Productivity programs usually work in 640 mode because more information fits on the screen. Programs that work only with graphics (such as painting programs and SuperConvert) usually work with both display modes.

SuperConvert is primarily a 640 mode program (when you see the menu bar and windows you are in 640 mode). But when a graphic is loaded that would look best in 320 mode, SuperConvert switches to 320 mode to display the picture. Then when you click the mouse or press a key on the keyboard, the program switches back to 640 mode.

Because you can switch modes in SuperConvert, the differences between 320 mode and 640 mode don't create a problem. But what happens if you want to use a 320 mode picture in a 640 mode program? The result is similar to what happened to the gorilla image...it looks great in 320 mode but looks awful in 640 mode.

So what can you do about it? Use SuperConvert, of course!

Remapping

One of the most powerful options in SuperConvert is the ability to "remap" an image to use a different display mode and/or color palette. In this section we'll experiment with different remapping options.

A 640 Mode Color Conversion

The screen image currently is a 320 mode graphic. If we tried using it in a 640 mode program it would look awful, so we will use SuperConvert to "remap" it to become a 640 mode image. We might also need to change the palette of colors to match the receiving program's palette.

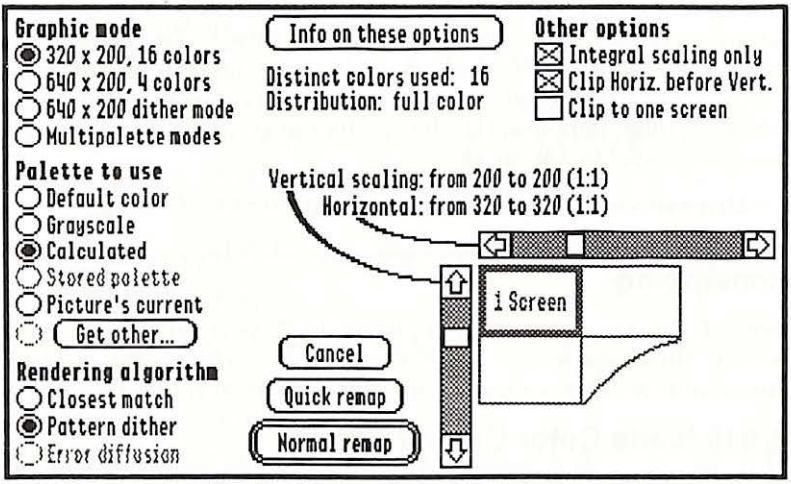
For this example, we'll remap the image to the most common setting for 640 mode: a 640 mode "dithered" image that uses the default palette of colors. The resulting graphic should be usable in *any* 640 mode program that supports graphics.

Each time you "remap" an image, a new screen image is generated. If SuperConvert simply remapped the existing screen image into a new screen image, the original image would be lost from memory.

To avoid re-loading the original image from disk every time you want to try a different remap option, SuperConvert always remaps from the true color image. If the original graphic is just a screen image, SuperConvert automatically creates a "true color image" the first time a command is chosen from the True Color Image menu. The true color image remains unaltered in memory regardless of how many times you use the Remap Image command to generate new screen images.

Let's demonstrate:

1. Choose Remap Image from the True Color Image menu. There is a slight delay as SuperConvert transforms the screen image into a true color image, then the remap options appear:



Remap Image dialog box

A few seconds after this dialog appears, some further information appears below the "Info On These Options" button. This information states that the true color image has 16 distinct colors and that it is a full color graphic.

Now we just need to specify the options we want for the conversion, and SuperConvert will remap the true color image into a new screen image:

2. Under Graphic Mode select 640 x 200 dither mode. Most 640 mode programs use a special "dithering" technique for simulating more colors on the screen, so it's usually best to use this option for 640 mode programs.
3. Under Palette To Use select Default Color. In order for the image to appear properly, the image's color palette must match the program's. While some 640 mode programs can use a custom palette, all should work with the default color palette.
4. Under Rendering Algorithm select Pattern Dither. This usually produces better results than "closest match."

5. Click the Normal Remap button and a new screen image is generated.

   NOTE: While the 640 mode image does not match the original quality and detail of the 320 mode picture, it is much better than just displaying the "raw" 320 mode picture on the 640 mode screen! Also, better conversions are possible...we just selected the options above because they should work in any 640 mode program.

Click the mouse button to go back to the main SuperConvert screen, and notice that the image is identical to the full screen view.

A Better 640 Mode Color Conversion

As mentioned in step 3 of the previous section, some 640 mode programs can use a custom color palette. By allowing a palette that is more suited to a particular picture, the quality of the image can be improved.

1. Choose Remap Image from the True Color Image menu. Because a true color image already exists in memory the dialog appears sooner.

The choices from the last conversion are still selected, so we only have to change one option:

2. Under Palette To Use select Calculated. The Calculated option should be used in programs that can support a custom palette. This option lets SuperConvert calculate which colors would be best for this particular picture.
3. Click Normal Remap and a new screen image is generated. When the conversion is finished you should see quite an improvement in the color!

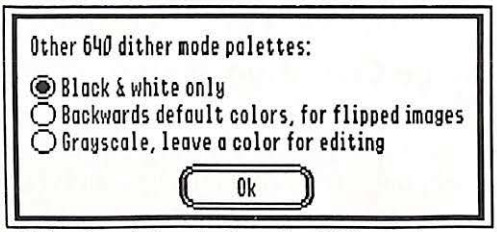
   NOTE: When you click the mouse button to return to the main SuperConvert screen, you will notice that the colors change. The previous conversion used the default color palette, which matches SuperConvert's display. This conversion, though, uses a calculated color palette that does not match SuperConvert's.

This small example shows the importance of learning how a particular program works with graphics. The graphic mode (320 vs. 640) is easier to determine than what kind of color palette the program supports (standard vs. custom). Some examples were provided on disk and are discussed later—they will help you determine what kind of graphics a particular program can support. In the meantime, let's experiment with some different kinds of conversions:

A 640 Mode Black and White Conversion

Let's create a 640 mode black and white image for use in any 640 mode program (they should all support black and white).

1. Choose Remap Image from the True Color Image menu.
2. Under Graphic Mode select 640 x 200 dither mode.
3. Under Palette To Use click "Get Other...". This option presents a dialog box with several choices for 640 mode graphics:



"Get Other" palette choices for 640 mode graphics

4. Select Black & White Only, then click OK.
5. Under Rendering Algorithm, select Error Diffusion. If a color doesn't map exactly to black or white, error diffusion will try to compensate for the difference to produce a better result.
6. Click Normal Remap and the new screen image is created.

Going Gray in 320 Mode

Because the original graphic contains many different colors, and because 320 mode has more color choices than 640 mode, we can predict that (for this particular graphic) a 320 mode conversion will look better than a 640 mode conversion. Let's see if this is true:

1. Choose Remap Image from the True Color Image menu.
2. Under Graphic Mode select 320 x 200, 16 colors.
3. Under Palette To Use select Grayscale. This option will cause the colors in the original graphic to be converted to gray.
4. Under Rendering Algorithm select Error Diffusion. If a color doesn't map exactly to a gray value, error diffusion will try to compensate for the difference, thus producing a better result.
5. Click Normal Remap and the new screen image is created. This definitely shows what a larger color palette can do!

Saving

If you want to save any of the conversions to test in your favorite IIGS-specific program, select the appropriate Save Format and click Save.

Most IIGS programs support "$C0,2 Apple Preferred" format, which is why that format is highlighted by default.

Converting A True Color Image

When you load a screen image format, a screen image is automatically created and displayed. Because a true color image format can support pictures that have a greater resolution or color range than the IIGS can normally display, a screen image is not created automatically. Instead, after loading a true color image you are presented with the "Remap Image" dialog box so you can create a screen image.

Loading

To load the sample true color image:

1. In the Load Formats window, first select the "Atari ST" computer type, then select the specific format of "*Spectrum 512 Compressed (.SPC)". *NOTE: The asterisk (*) indicates this is a true color image Load Format.*
2. Click Load, then select the "Clown.SPC" graphic in the Samples folder.
3. Click Accept and the image is loaded, then the Remap Image dialog box appears.

Viewing

When the Remap Image dialog box appears, wait a few seconds and further information about the graphic will appear below the "Info On These Options" button. It will state that there are 81 distinct colors, and that the graphic is a full color image.

There are three ways to view this image. You have already tried one way (doing a normal remap to create a quality screen image). Two faster ways are to either view an approximation of the true color image or to generate a quick "preview" screen image.

Let's try each of these methods to see how they differ:

1. Click Cancel to indicate that you don't want to remap the image. Notice that the Screen Image window does not contain a screen image (because you clicked Cancel in the Remap Image dialog box).
2. Choose View Approximation from the True Color Image menu. This option displays an approximation of the true color image by separating different color components of the true image into separate lines on the screen. The result is a magnified view of the image, but you can get an idea of what the original graphic looked like (you can use the mouse to scroll around the image).

Now let's generate a quick preview screen image:

3. Press ⌘M (hold down the Command key (⌘) and press M). This is the shortcut for the "Remap Image" command on the True Color Image menu.
4. According to the information under the "Info On These Options" button, there are 81 distinct colors in this graphic. Because there are so many colors, 320 mode will give better results than 640 mode, so verify that 320 x 200, 16 colors is selected under Graphic Mode.
5. Click Quick Remap to quickly generate a preview image. While a normal remap can take several minutes to complete, a quick remap takes only a few seconds. A quick remap ignores all options settings other than the chosen Graphic Mode, and it converts only up to one screen (which is fine for getting a quick preview image).

OK...we've seen the previews. Now let's generate a "final" screen image:

6. Press ⌘M to present the Remap Image dialog box.
7. The suggested conversion options should be selected already: Graphic Mode is 320 x 200, 16 colors; Palette To Use is Calculated; Rendering Algorithm is Pattern Dither.
8. Click Normal Remap and a high quality screen image is produced from the true color image.

Other Examples

In the Samples folder on the program disk are other examples that have already been converted with SuperConvert. The samples show the types of conversions you can do in order to make graphics more compatible with the software you use, while maintaining as much quality as possible.

To view the samples that are discussed in this section, we recommend that you remap the original "Clown.SPC" image using the settings that are mentioned. Alternatively you can use the "Apple IIGS-Specific/SuperHiRes ($C0/PNT, $C1/PIC)" Load Format to load the variations that have been saved on disk already.

When remapping the original true color graphic you'll need to set three options:

- The **Graphic Mode** is chosen based on which program you intend to use the graphic with.
- The **Palette To Use** determines how colors will be converted. This option is also chosen based on the program you intend to use.
- The **Rendering Algorithm** does not affect the compatibility of the image, but it does have a great effect on quality and suitability for special uses. Different choices are available, depending upon the selected graphic mode and palette.

320 Mode Conversions

320 mode is typically used in painting programs and games because the color range makes it possible to provide detailed shading and more "life-like" images.

For the 320 mode conversions below, select the "320 x 200, 16 color" Graphic Mode.

File: m320.Color.Calc

Palette: Calculated

Rendering: Pattern dither

A calculated color palette gives the best color translation. The resulting graphic is useable in 320 mode programs which recognize non-standard color palettes (e.g. Platinum Paint).

File: m320.Color.Def

Palette: Default color

Rendering: Pattern dither

Colors are translated to a fixed color palette, so the color choice is not as good as using a calculated palette. However, it is compatible with 320 mode programs that use a fixed palette.

File: m320.Grayscale

Palette: Grayscale

Rendering: Error diffusion

The picture maintains its quality because of the many shades of gray available in 320 mode. This graphic looks best in 320 mode programs that recognize non-standard palettes.

File: m320.BlackWhite

Palette: Black and White only

Rendering: Error diffusion

Black and white graphics are not very good in 320 mode. The lower resolution of 320 mode is fine when there are many color (or gray) shades available, but if an image has a limited number of colors the higher resolution of 640 mode is a better choice.

---

640 Mode Conversions

640 mode is typically used in productivity software because the higher resolution allows more information to fit on the screen. Most painting programs also have a 640 mode option.

File: m640.4color.Def

Graphic Mode: 640 x 200, 4 color

Palette: Default color

Rendering: Pattern dither

Using the 4 color mode creates a screen image that contains only four unique colors. Most 640 mode programs, however, support dithering which allows better color selection.

File: m640.Dcolor.Def

Graphic Mode: 640 x 200 dither mode

Palette: Default color

Rendering: Pattern dither

Using dither mode allows better color conversion, and by using the default color palette it remains compatible with most 640 mode programs. These settings are good for AppleWorks GS (AWGS also supports a calculated color palette, but it applies to *all* imported graphics. If you will only be using a single graphic in AWGS the use the Calculated palette; if you use more it is better to convert all the graphics to the same palette).

File: m640.Grayscale

Graphic Mode: 640 x 200 dither mode

Palette: Grayscale

Rendering: Error diffusion

With only four shades of gray available in 640 mode, the image is not as good as a 320 mode image which has many shades.

File: m640.BlackWhite

Graphic Mode: 640 x 200 dither mode

Palette: Black and White only

Rendering: Error diffusion

For graphics that have very few colors, 640 mode is the best choice because its higher resolution allows greater detail than 320 mode.

GraphicWriter III Conversions

If you own GraphicWriter III and you import 320 mode graphics you can use SuperConvert to get higher quality than what you've been using because GraphicWriter III handles graphics in a unique way. *NOTE: For 640 mode and MacPaint graphics, it is better to import straight into GraphicWriter III.*

The exact steps for creating high quality conversions for GraphicWriter III are given in Appendix A. Basically, to gain the increased resolution we "pre-double" the height of the image with SuperConvert's fancy algorithms instead of letting GraphicWriter III double the height by simply repeating each line of a graphic.

The examples below were produced by using SuperConvert to double the height of each image (vertical scaling 2:1). To import these "ultra-resolution" examples into GraphicWriter III:

1. Start GraphicWriter III, create a new document, then create a painting frame.
2. Choose Import from the File menu, select the "Super Hires" translator, then click OK.
3. Select one of the files below to import.
4. Be sure to check the "Half Height" option, then click Open to import the graphic. *NOTE: Make sure you are in Tall Text view in order to see the increased quality.*

File: m640.GW.BlkWht

Graphic Mode: 640 x 200 dither mode
Palette: Black and White only
Rendering: Error diffusion
Vertical Scaling: 2:1

File: m640.GW.Grays

Graphic Mode: 640 x 200 dither mode
Palette: Grayscale
Rendering: Error diffusion
Vertical Scaling: 2:1

Because GraphicWriter III has a fixed, dithered palette of colors, some gray shades are translated into a color that simulates that shade of gray.

File: m640.GW.Colors

Graphic Mode: 640 x 200 dither mode
Palette: Default color
Rendering: Pattern dither
Vertical Scaling: 2:1

This graphic is identical to the earlier 640 mode conversion titled "m640.Dcolor.Def," except that this graphic is stretched to twice the height for GraphicWriter III.

Notes

Reference

The *Reference* section describes all the features found in SuperConvert. This section is organized for reference—use it to learn about a specific feature.

A particular topic or command can be found in the Table of Contents or Index.

Notes

Load Formats Window

Load Formats are the graphic formats that SuperConvert can load and convert. The Load Formats window is divided into two lists: the top list shows the types of computers (plus a category for formats not specific to any one computer). Selecting a computer type updates the bottom list to display the actual formats for that computer.

The Load Formats window

To choose a particular load format you make a selection in both the top and bottom lists. *NOTE: The selections in the Load Format window are only relevant when you are loading an image—they have no other effect.*

Clicking the Load button in the Load Formats window is equivalent to selecting the Load & Convert command on the File menu. If you select multiple files to load, the button changes color and shows "Load Next" (which is equivalent to the Load Next command on the File menu).

Clicking Info On Format opens the Help window and goes directly to the page corresponding to the currently selected format.

Normally, if any problem is encountered while loading a file you will receive an error alert and will not see any portions of the converted picture. If this happens you can attempt to recover the picture by holding down the Ó key and clicking in the area where the conversion window would appear (or anywhere else in the background). If the picture seems to be completely unrecoverable, you'll get a beep and nothing else. If there is any hope, the picture will be displayed and all the menu options for saving and modifying it will be activated. *WARNING: There is a slight possibility that the partial picture information in memory is not reliable, and a system crash can occur (either immediately or during a future conversion).*

Transfer Notes

SuperConvert can only load graphics from disks recognized by the IIGS operating system. Currently (as of System 5.0.4) only GS/OS or ProDOS disks are recognized. This means that if a graphic resides on a "foreign format" disk, such as DOS 3.3, IBM, or Macintosh, it must first be transferred to a IIGS disk (ProDOS or GS/OS format).

One transfer method is by modem to download files from electronic services, or transfer files with other computers. Some services post large files in a compressed format which are meant to be "unpacked" once the file has been downloaded. SuperConvert recognizes some forms of compression, but not all files will work. For this reason we strongly recommend first downloading one graphic to verify the format is supported.

Other methods of transfer are available for some formats. General information is provided in this section; any specific notes on a particular format will be described in the sections that follow.

Transferring files from DOS 3.3: When the ProDOS operating system was first released, it included a program called "Convert" that would read files from a DOS 3.3 disk and write them to a ProDOS disk. If you can find an early ProDOS disk you may find and use this program. Copy II Plus from Central Point Software also has an option to convert DOS 3.3 disks into ProDOS.

Transferring files directly from Macintosh and IBM: The program Apple File Exchange (AFE) is supplied free with the Macintosh. AFE can transfer files from the Mac onto a IIGS disk. When used on a Macintosh that has a "SuperDrive," AFE can also transfer IBM files to a IIGS disk.

There are also public domain or shareware utilities that can directly read a Mac disk on an Apple II: MacTransGS for the old single-sided 400K (MFS) disk format, and A2FX for 800K (MFS) disks. Your local user's group may be able to provide copies of these programs, or they can be found on major online services.

Format Descriptions

For each load format discussed below, there is a summary of the following information:

Programs: Which programs, or the types of programs, that produce this graphic format.

Resolution: The maximum size and colors that the format supports.

Result: The graphic mode and picture size that results from loading a graphic with this format:

If the source graphic's resolution is no better than the IIGS, the graphic is immediately loaded as a "screen image" (either 320 mode or 640 mode).

If the source graphic's resolution is better than the IIGS, the graphic is loaded as a "true color image" and the "Remap Image" dialog box is displayed so you can create a screen image that the IIGS can display.

Following the summary there may be specific notes or tips on using a particular format.

Apple II Family Load Formats

HiRes (Black & White and Color)

Programs: Various (816/Paint, MousePaint, etc.)

Resolution: B&W: 280 x 192, black & white
Color: 140 x 192, 6 colors

Result: B&W or Color: 320 mode, 280 x 192

Double HiRes (Black & White and Color)

Programs: Various (816/Paint, DazzleDraw, etc.)

Resolution: B&W: 560 x 192, black & white
Color: 140 x 192, 16 colors

Result: B&W: 640 mode, 560 x 192
Color: 320 mode, 280 x 192

Print Shop Black & White Graphic

Programs: Print Shop (original version, not "New Print Shop" or "Print Shop IIGS")

Resolution: 88 x 52, black & white

Result: 320 mode, 88 x 52

Print Shop uses DOS 3.3-formatted disks, so you first have to transfer the files to a ProDOS disk.

Print Shop graphics from other machines might also be compatible, but this has not been tested.

TDM 40- and 80- Column Text Screen Captures

Programs: TDM (The Desktop Manager, a utility package from On Three, Inc.)

Resolution: 40-column: 40 x 24
80-column: 80 x 24

Result: 40-column: 320 mode, 280 x 192
80-column: 640 mode, 560 x 192

NOTE: The TDM format is listed under the Apple II category because, while TDM runs only on the Apple IIGS, the file format can be generated easily on any Apple II.

This conversion actually reads the character set ROM in the IIGS to produce an exact graphical representation of a text screen, even if a foreign-language character set is selected. *WARNING: The proprietary technique used to read the IIGS character set ROM cannot be guaranteed to work on future revisions of the IIGS. Also there may be problems with future accelerator products: it works fine with the current TransWarp GS at 7MHz, but accelerators that run faster or use a different technique may cause this conversion to malfunction. If this happens, you may need to temporarily slow the accelerator down to normal IIGS speed.*

The TDM format is a BIN file containing a raw image of the text screen memory. For example, using AppleSoft BASIC under DOS 3.3 or ProDOS you could save a 40-column screen with the command:

```
BSAVE filename,A$400,L$400
```

80-column screen saves should store the auxiliary memory half of the screen before the main memory half. Files created in this manner won't contain information on the setting of the alternate character set mode at the time the save was made, therefore they may appear incorrectly when first converted. If this happens, choose Re-Convert Last File from the File menu to perform the conversion using the opposite character set mode.

Apple IIGS-Specific Load Formats

SuperHiRes ($C0/PNT, $C1/PIC)

This load format handles all of the common IIGS-specific graphics file formats automatically. The individually supported formats are:

Type $C0, Auxtype 0—PaintWorks Plus 1.0
Type $C0, Auxtype 1—PackBytes
Type $C0, Auxtype 2—Apple Preferred
Type $C1, Auxtype 0—Uncompressed Screen

If you load a file of another type (by checking the "Allow files to be selected regardless of type" option), it will be interpreted as a PackBytes-format file. Some programs (usually games) use that format but assign the files a different type.

Type $C0, Auxtype 0—PaintWorks Plus 1.0

Programs: First release of PaintWorks Plus only used this format, later versions retained it as an option

Resolution: 320 x 396, 16 colors from a palette of 4096

Result: Same as the original (no conversion)

This format contains 514 bytes of information on the current drawing color and patterns. SuperConvert stores this data from the most recently loaded PaintWorks picture, and includes it with any file saved in this format. It is therefore highly recommended that you load at least one file of this format before saving anything in this format, otherwise the resulting picture will not have any drawing patterns and will be difficult to edit in PaintWorks Plus.

Type $C0, Auxtype 1—PackBytes

Programs: 816/Paint compressed screen format, FantaVision IIGS

Resolution: One full screen, all IIGS SHR graphics features are possible

Result: Same as the original (no conversion)

This is referred to as the Eagle format in some documentation. This format is almost completely unsupported by IIGS graphics programs.

Type $C0, Auxtype 2—Apple Preferred

Programs: Almost every IIGS-specific program, a few Apple II programs

Resolution: Virtually any size; all IIGS SHR graphics features are possible

Result: Same as the original (no conversion)

This is the IIGS graphics format of choice. It has provisions for handling images far larger than available memory (however, all existing implementations—including SuperConvert—place a much stricter upper limit on size). DeluxePaint II established the following maximums, which are also used by SuperConvert:

Maximum Height: Two screens (400 pixels)

Maximum Width: Two screens (640 pixels in 320 mode, 1280 pixels in 640 mode)

Image size is further limited to a maximum of 65,536 bytes of raw pixel data (slightly more than two screenfulls in area). This limit is illustrated by the curve shown in the View Half Size display.

Files in this format consist of a series of named segments, also referred to as records or blocks. When such a file is loaded, you'll get a dialog box with a list of the segments in the file. Those that SuperConvert can do something with will appear as buttons, others will just be text. A "MAIN" segment contains an actual picture (it is almost always the first segment in the file, and just hitting Return will cause it to be loaded).

Other supported segment types are "SHRConvert" and "SuperConvert," which contain the version number of the program that saved the file so that any problems with it can be traced back to the source. Other segments contain no usable information, but their existence can help identify the source of the file. For example, pictures saved from Platinum Paint have a "Platinum Paint" segment, DeluxePaint pictures have an "EOA" segment, and PaintWorks pictures have segments such as "VSDV" and "VSDK."

Type $C1, Auxtype 0—Uncompressed Screen

Programs: Almost every IIGS-specific program, a few Apple II programs

Resolution: 320 x 200, 16 colors
640 x 200, 4 colors taken from a palette of 4096

Result: Same as the original (no conversion)

All IIGS graphics features are available, such as mixing the two graphics modes or having up to 16 independent color palettes, but few programs will accept or produce files containing these variations.

Uncompressed SHR Screen ($C1, BIN)

Programs: almost every IIGS-specific program, a few Apple II programs

Resolution: 320 x 200, 16 colors
640 x 200, 4 colors taken from a palette of 4096

Result: Same as the original (no conversion)

This is the same format as "Type $C1, Auxtype 0—Uncompressed Screen" except that this load format doesn't care as much about the file's exact type and auxtype (this lets you to load the occasional file that doesn't have the right types). In particular, many of the pictures that were available when the IIGS first came out were incorrectly given a filetype of BIN.

If you check the "Allow files to be selected regardless of type" option, you can also use this load format to load the first frame of a PaintWorks animation file (type $C2).

PaintWorks Gold 640 Mode Files

Programs: PaintWorks Gold

Resolution: 640 x 200, 4 colors taken from a palette of 4096

Result: Same as the original (no conversion)

None of PaintWorks Gold's three save formats produce valid files when the program is in 640 mode. The usual symptoms when such files are loaded by a program that properly implements the formats include incorrect colors and half-width images. This special load format is provided to handle these files "properly" (by loading them improperly to compensate for the defects in the files).

After loading the faulty PaintWorks Gold picture you can save it in a proper format, such as "$C0,2 Apple Preferred."

Print Shop IIGS Color Graphic

Programs: Print Shop IIGS

Resolution: 88 x 52, 8 fixed colors (black, white, red, orange, yellow, green, blue purple)

Result: 320 mode, 88 x 52, default palette, only 8 colors used

Print Shop IIGS Built-In Graphics

Programs: Print Shop IIGS

Resolution: Contains six named PS IIGS color graphics, each 88 x 52, 8 fixed colors (black, white, red, orange, yellow, green, blue purple)

Result: 320 mode, 88 x 52, default palette, only 8 colors used

Finder Icon File

Programs: The Finder and various icon editors (DIcEd, IconEd, etc.)

Resolution: Varies

Result: 640 mode, image size is a few pixels larger than the icon in all directions to make the background color visible, uses default palette

You can select any icon contained in the file you load. All Finder options that affect the appearance of the icon can be simulated: large/small icon selection, icon coloration, and the effects of the icon being opened, offline, or selected. Also, any background color for the icon can be selected.

AST Picture Data File (Color Only)

Programs: VisionEffects, the software supplied with the AST VisionPlus video digitizer card. Files must be saved as picture data files from 320 mode, full color. Also supports files from the Allison digitizing program.

Resolution: 320 x 200, 4096 colors

Result: True color image, 320 x 200

This load format is intended to provide a way to generate digitized screen images of much higher quality than the VisionEffects software is capable of. Compatibility with software for the Visionary card (an enhanced version of the VisionPlus) has not been determined.

"3200 Color" Pictures (Uncompressed and Compressed)

Programs: Various, including the software for the Visionary video digitizer card

Resolution: 320 x 200, potentially 3200 colors (there are numerous restrictions on what colors go where, making the actual number of colors generally no more than a few hundred)

Result: True color image, 320 x 200

These pictures are intended for use with special display programs that change the color palette for each row of pixels, making it possible to display 3200 (200 lines, 16 colors per line) colors at once.

The results can be excellent, but unfortunately the critical timing requirements of this technique make it necessary for such display programs to completely shut down interrupts, a normal IIGS function that is used by things such as AppleTalk, various desk accessories such as alarm clocks and screen blankers, and other ordinary operations. This inherent incompatibility with normal IIGS functioning restricts the usefulness of the 3200 color format. This load format is provided so that you can convert any 3200 color pictures you have into normal formats that might not look quite as good, but don't disrupt normal operation of the computer.

Atari ST Load Formats

In addition to the formats listed below, you may occasionally run across an Atari ST picture with a filename ending in .PQ1, .PQ2, or .PQ3. These are standard .PI1-.PI3 files that have been compressed with the standard Huffman SQ algorithm. They can be unsqueezed with a utility such as ShrinkIt, AUSQ, or BLU. Endings of .TN1, .TN2, or .TN3 might indicate a file that is in .TNY format, but no sample files have been tested.

Degas (.PI1, .PI2, .PI3)

Programs: Degas, Degas Elite

Resolution: .PI1: 320 x 200, 16 colors from a palette of 512
.PI2: 640 x 200, 4 colors from a palette of 512
.PI3: 640 x 400, black & white

Result: .PI1: 320 mode, 320 x 200, 16 colors
.PI2: 640 mode non-dithered, 640 x 200, 4 colors
.PI3: 640 mode non-dithered, 640 x 200, 4-level grayscale

Degas Elite (.PC1, .PC2, .PC3)

Programs: Degas Elite

Resolution: .PC1: 320 x 200, 16 colors from a palette of 512
.PC2: 640 x 200, 4 colors from a palette of 512
.PC3: 640 x 400, black & white

Result: .PC1: 320 mode, 320 x 200, 16 colors
.PC2: 640 mode non-dithered, 640 x 200, 4 colors
.PC3: 640 mode non-dithered, 640 x 200, 4-level grayscale

Neochrome (.NEO)

Programs: Neochrome

Resolution: 320 x 200, 16 colors from a palette of 512

Result: 320 mode, 320 x 200, 16 colors

All three Atari ST resolutions are representable in this format, however the Neochrome program apparently only produces 320 x 200 pictures.

Tiny (.TNY) Compressed

Programs: Interchange format only; no known program uses this as the default setting

Resolution: Type 1: 320 x 200, 16 colors from a palette of 512
Type 2: 640 x 200, 4 colors from a palette of 512
Type 3: 640 x 400, black & white

Result: Type 1: 320 mode, 320 x 200, 16 colors
Type 2: 640 mode non-dithered, 640 x 200, 4 colors
Type 3: 640 mode non-dithered, 640 x 200, 4-level grayscale

Spectrum 512 (Uncompressed and Compressed)

Programs: UniSpec, DigiSpec, etc.

Resolution: 320 x 199, 512 colors (it's actually 320 x 200, but the top line is always solid black due to limitations of the format). There are up to 15 colors available for any one pixel, but the available colors are changed three times per row of pixels, making it possible to have all 512 colors on the screen.

Result: True color image, 320 x 200

There is a third Spectrum 512 format (filename ends with .SPS) but details of this format have not been made public.

Amiga Load Formats

IFF (FORM ILBM only)

Programs: Virtually all Amiga graphics programs

Resolution: Arbitrary size, 2-32 arbitrary colors, or 64 or 4096 limited colors

Result: True color image, same size as the original

This load format handles FORM ILBM structures in any IFF file (including FORM ILBMs buried inside other structures) that describe a normal Amiga display mode, including EHB (Extra HalfBrite) and HAM (Hold-And-Modify). Synthetic and non-displayable modes (SHAM, Dynamic HAM, Dynamic HiRes, HAM-E, RGBN, RGB8, etc.) are not currently supported.

The IFF format is used for many things besides graphics on the Amiga: music, digitized sounds, and word processor documents to name a few. Each type of data is labelled as a specific FORM within an IFF file: ILBM for graphics, SMUS for music, and so on. It is possible for a FORM or other IFF structure to contain other FORMs. For example, a document FORM might contain a FORM ILBM that specifies a picture that is included in the document. SuperConvert should be able to find a FORM ILBM no matter how deeply it is buried in an IFF file's structure.

Commodore 64/128 Load Formats

Doodle

Programs: Doodle

Resolution: 320 x 200, 16 colors (2 color choices per 8 x 8 pixel area)

Result: 320 mode, 320 x 200

Koala Illustrator

Programs: Koala Illustrator

Resolution: 160 x 200, 16 colors (4 color choices per 4 x 8 pixel area)

Result: 320 mode, 320 x 200

Print Shop Screen

Programs: Print Shop

Resolution: 320 x 200, black & white

Result: 320 mode, 320 x 200

There is a *possibility* of getting at least a B&W image out of some other C64 picture formats by using this load type.

Macintosh Load Formats

Downloading Notes

All downloaded Macintosh files (other than plain text) will be in a special format known as MacBinary: to use such files, the 128-byte MacBinary header must be stripped from the file. Assuming that the file is not larger than approximately 32K, the following commands from ProDOS BASIC will accomplish this (**for safety, do this on a copy of the file**):

```
BLOAD MACPIC,tTXT,a$1000
BSAVE MACPIC,tTXT,a$1080
```
(Replace "MACPIC" and "TXT" with the file's actual name & type.)

In addition to MacBinary, many Mac files will be in a compressed format, such as PackIt or StuffIt. PackIt files can be unpacked, and MacBinary headers removed, with the utility MacDown. StuffIt files can be unpacked with ShrinkIt-GS. Both of these programs are available on the major online services, and also might be available through your local user's group or computer dealer.

MacPaint => 640 Mode Grayscale

Programs: MacPaint and other Mac graphics programs that support the MacPaint format

Resolution: 576 x 720, black & white

Result: 640 mode non-dithered, 576 x 360, 4-level grayscale

The default save format for MacPaint II is **not** this format, although the old MacPaint format is available as an option.

MacPaint => 320 Mode Black & White

Programs: MacPaint and other Mac graphics programs that support the MacPaint format

Resolution: 576 x 720, black & white

Result: 320 mode, 576 x 227 (the bottom of image is lost due to screen image size limits)

The default save format for MacPaint II is **not** this format, although the old MacPaint format is available as an option.

ScreenMaker (Startup Screen)

Programs: ScreenMaker, converts MacPaint pictures to this format

Resolution: 512 x 384, black & white

Result: 640 mode non-dithered, 512 x 192, 4-level grayscale

This is the startup screen format for older Macintoshes only! The Macintosh SE and Macintosh II use a different format which SuperConvert doesn't support. Also, there are other various "startup screen" programs that use their own format, and those formats are not supported.

IBM PC & Compatible Load Formats

Each IBM program that supports a particular format seems to do it differently from the others, and to do it slightly differently for each of type of IBM display card that they support. This makes it impossible to guarantee that SuperConvert will be compatible with all files of a particular format.

PC Paintbrush (Full Screen and Clipping)

Programs: PC Paintbrush

Resolution: Arbitrary size, 2-256 colors, but only 2-16 color files are currently supported

Result: True color image, same size as the original

DeluxePaint II, not Enhanced

Programs: DeluxePaint II

Resolution: Arbitrary size, 2-256 colors

Result: True color image, same size as the original

The original DeluxePaint II for the IBM used a format identical with the Amiga IFF format for graphics (FORM ILBM), with the single exception that it supports 256 color images which aren't possible on the Amiga. Unfortunately DeluxePaint II Enhanced uses an incompatible variation on the format. Details on the variation haven't been found, so SuperConvert doesn't support those files. There is no way to tell whether a particular file is in the old or new format other than trying to load it.

AutoDesk Animator Frame File from FliAway

Programs: Only compatible with the individual frame files created by the FliAway utility (provided on the SuperConvert disk to extract Autodesk Animator frames from .FLI animation files)

Resolution: 320 x 200, 256 colors out of a palette of 262,144

Result: True color image, 320 x 200

Computer-Independent Load Formats

Computer-independent formats are standard graphic formats that are supported by a variety of computers. By using these formats it is possible to get graphics from any machine to another machine just by having conversions to and from a "computer-independent" format on each computer.

GIF (Graphics Interchange Format)

Programs: Various

Resolution: Arbitrary size, up to 256 colors out of a palette of 16,777,216 possible colors

Result: True color image, same size as the original

GIF (Graphics Interchange Format) is a format developed by CompuServe, Inc. for the transfer of graphics between different computer types.

Programs that produce GIF files can be found on most computer systems with graphics capability. If SuperConvert does not support a particular graphics format from another computer, chances are good that you can find a conversion utility on that computer that will convert that particular graphics format into a GIF file. After you convert the graphic to a GIF file, you can transfer it to the IIGS and load it with SuperConvert.

NOTE: The original version (87a) of the GIF specification is fully supported. Files that use features from later revisions of the specification will convert, but portions of the picture may be missing or distorted.

RLE (Run Length Encoded)

Programs: Various

Resolution: 256 x 192 or 128 x 96, black & white

Result: 320 mode, 256 x 192 or 128 x 96

Downloading Notes

RLE pictures usually have filenames ending in .RLE (on CompuServe they will have a "/graph:RLE" flag after their name in the directory listing).

RLE pictures contain only 7-bit ASCII data, and do not have to begin precisely at the start of the file. This means that you can use your telecommunication program's capture buffer to grab an RLE graphic without having to worry about any excess data before or after the actual image. However, your program must be capable of capturing control characters (especially the ESCape character).

IPI Image

Programs: Unknown

Resolution: 256 x 256 or 512 x 512, 16,777,216 possible colors

Result: True color image, same size as the original

This format is different from the others that SuperConvert supports, in that each image is composed of three separate files containing the red, green, and blue portions of the image. Select any of the three for loading (the other two will be loaded automatically). For this to work, all three files must have identical names except for the endings, which must be ".R", ".G", and ".B". If the files are named differently, they must be renamed before they can be loaded.

This file format was used at the Image Processing Institute of the University of Southern California for early experiments in digital image processing.

Quick Ray Tracer (QRT) Raw Image File

Programs: Quick Ray Tracer

Resolution: Arbitrary size, up to 16,777,216 possible colors

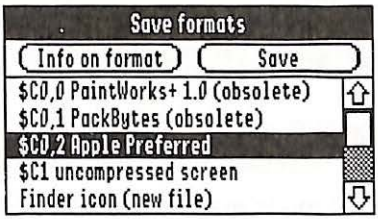
Result: True color image, same size as the original

Quick Ray Tracer (QRT) is a program available on several computers for producing computer-generated images from a mathematical description of a scene. While there isn't a IIGS version of QRT at this time, if one is ever available it will presumably use the same file format. Until then you can use this load format to convert QRT files to a IIGS-displayable graphic.

Notes

Save Formats Window

Save Formats are the graphic formats that SuperConvert can save. *NOTE: The selection in the Save Format window is only relevant when you are saving an image—it has no other effect.*



The Save Formats window

Clicking Info On Format opens the Help window and goes directly to the page corresponding to the currently selected format.

Clicking the Save button in the Save Formats window (visible only if a file has been successfully converted) is equivalent to the Save Conversion command on the File menu.

Format Descriptions

For each save format discussed below, there is a summary of the following information:

Default Suffix: The suggested file suffix.

Programs: Examples of programs that this particular format can be used with.

Picture Info: The filetype, auxtype, and length of the files saved with this format. Also the picture size, where applicable.

Limitations: Any limitations there might be in using this particular format.

Following the summary there may be specific notes or tips on using a particular format.

$C0,0 PaintWorks Plus v1.0

Default suffix: PNT

Programs: PaintWorks v1.0 used this format rather than the Apple Preferred format, which wasn't defined at the time. Some other programs can read this format, and a few can write it.

Picture Info: Filetype $C0, auxtype $0000, length varies
always one screen wide, 396 pixels high

Limitations: Only 320 mode graphics are allowed (there is a variation of this format that handles 640 mode, but it is not supported because only PaintWorks Gold uses it, and that program can handle other 640 mode formats). Multiple color palettes are impossible to represent in this format.

This format will probably not be supported by future programs, so don't use it unless you have to. Before saving any files in this format, you should load one real PaintWorks picture to properly establish the drawing patterns.

This format contains 514 bytes of information on the current drawing color and patterns. SuperConvert stores this data from the most recently loaded PaintWorks picture, and includes it with any file saved in this format. It is highly recommended that you load at least one file of this format before saving anything in this format, otherwise the resulting picture will not have any drawing patterns and will be difficult to edit in PaintWorks Plus.

$C0,1 PackBytes

Default Suffix: PAK

Programs: Only 816/Paint and FantaVision GS seem to use this format

Picture Info: Filetype $C0, auxtype $0001, length varies
always one screen wide, one screen high

Limitations: All IIGS graphics features are possible, but individual programs may impose restrictions such as a single palette or 320 mode only.

This is not an officially-supported format; don't use it unless you have to. About the only legitimate use for it is in programs you write yourself, with no need for the pictures ever to be used anywhere else, since the format is a good compromise between minimizing file size and ease of writing code to load the picture.

Also known as the Eagle format in some documentation.

$C0,2 Apple Preferred

Default Suffix: SHR

Programs: All IIGS graphics programs should read/write this format.

Picture Info: Filetype $C0, auxtype $0002, length varies
virtually unlimited size, either larger or smaller than the screen. All current implementations impose some size limit, which is no larger than two screens wide or two screens high, or 65,536 bytes of raw data

Limitations: All IIGS graphics features can be represented in this format, but programs that support the format generally impose additional restrictions, such as a single palette. Some programs cannot handle files with a width other than one screen.

Use this format if possible. Note that you can load these files (if no larger than one screen) directly into DeluxePaint II as brushes.

$C1 Uncompressed Screen

Default Suffix: SCR

Programs: All IIGS graphics programs should be able to read this format.

Picture Info: Filetype $C1, auxtype $0000, length 32,768 bytes always one screen wide, one screen high

Limitations: All IIGS graphics features are possible, but few programs can handle some features such as mixed graphics modes and multiple palettes.

Because this format's lack of compression makes for larger files, it should generally only be used in conjunction with other programs that are incapable of reading the standard compressed formats.

Finder Icon New File and Add to Existing File

Default Suffix: ICN

Programs: The Finder and various icon editors (DIcEd, IconEd, etc.)

Picture Info: New File: filetype $CA, auxtype $0000, length varies
Existing: filetype and auxtype unchanged, length varies

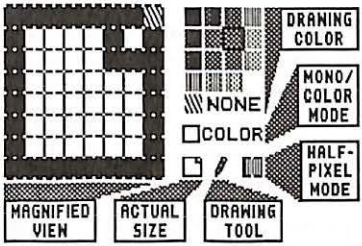
Limitations: Each icon must be 640 mode, standard color palette. Image size cannot exceed 160 x 50, with 80 x 25 being the largest you should normally make an icon.

This format appears twice in the list of save formats, once for making a new icon file containing one icon, and another for adding icons to an existing file, perhaps one you just created with the first option. If you are making icons for a group of files that are likely to stay together, it is a good idea to put their icons together in one file (this reduces memory, disk space, and loading time requirements for the icon file).

Do not use "Add to Existing File" to add icons to any of the icon files that came on your System Disk! Any icons you add will be overwritten whenever you install a new System version.

Icon files contain more than just the images of the icons: they also contain information about which file or files each icon is to be used with. Also, there is a small icon associated with each full-size icon. Therefore, when saving an image in this format a dialog box appears so you can specify all of this extra information. Initially, all options will be set to associate the icon with the most recently loaded file, and to have the icon automatically run SuperConvert when it is opened. You can modify any of the selection criteria, or turn some of them off to allow the icon to be used for a group of files.

If you want the small icon associated with your full-size icon to be something other than the generic document icon, you can draw whatever sort of image you want using the icon editor at the upper right of the icon options dialog:



Editing a small icon

Drawing is performed in the magnified view area. The results appear there and in the actual size area.

If the Color box is checked, the Finder won't allow the user to change the icon's colors.

Clicking on the actual size small icon steps through the various ways the icon can appear in the Finder due to it being open, offline, or selected.

Clicking on the drawing tool steps through the available tools:

Pencil—Draws in the selected color. Areas drawn with the "NONE" color will be transparent.

Paint can—Erases with the selected color

Hand—Repositions icon image

Each of the little square boxes in the magnified view actually represents two pixels, which together form one of the 16 possible dithered colors. Normally, drawing affects both pixels of each pair at once: if you need to do some very detailed drawing, clicking on the half-pixel box will enable/disable a mode in which the individual pixels of each pair can be separately drawn. Half-pixel drawing can be confusing, especially with colors, because two pixels combine to create a color.

Desktop Background Image INIT

Default Suffix: ICI

Programs: The output of this save format is a program that is intended to be placed in the System/System.Setup folder of your startup disk. Putting one anywhere else has no effect. When a disk with one of these files is started, the picture contained in the file will be installed as the background image for all normal desktop programs.

Picture Info: Filetype $B7, auxtype $0000, length 32,862 bytes always one screen wide, one screen high, with the top 13 pixels being covered by the menu bar. Larger images are chopped off at the bottom, smaller ones are centered on a light blue background.

Limitations: Any image can be saved in this format, but it won't look right unless its palette matches the palette of the programs it appears in. Use the Remap command to change an image to a different palette or mode.

GIF (Graphics Interchange Format)

Default Suffix: GIF

Programs: While there are a few Apple II programs which can use GIF files, this save format is primarily intended for moving graphics to other machines. Programs that can convert or use GIF files exist for virtually all computer systems that have graphics capability.

Picture Info: Filetype $06, auxtype $0000, length varies

Limitations: Pictures using mixed 320 and 640 modes cannot be saved in this format. Multipalette pictures and pictures using dithered colors in 640 mode can be saved as GIF, but they may not look quite the same on another IIGS since the information needed to recreate these IIGS-specific features cannot be stored in a GIF file.

NOTE: Saved files conform to the original (87a) version of the GIF specification.

TIFF (Tagged Image File Format)

Default Suffix: TIF

Programs: No Apple II programs are known to use TIFF files at this time. However, many desktop publishing and other types of programs for the IBM, Macintosh, and other computer systems can load TIFF files.

Picture Info: Filetype $06, auxtype $0000, length varies

Limitations: 320 mode pictures come out best; the color dithering that is used in 640 mode graphics does not translate well to other computers.

TIFF is an extremely flexible format, perhaps too flexible for its own good. There are hundreds of legal variations of TIFF files, and new variations can be introduced at any time. Unfortunately, most programs that claim TIFF compatibility only support a small fraction of these possibilities. To maximize your chances of successfully using TIFF files, SuperConvert displays a dialog box that gives you various options to control exactly how the file is stored.

The first time you save an image in TIFF format for use with a particular program, you should save several files using different combinations of options, and see which ones work the best. Unfortunately, no guarantee can be made that the files will work at all with any particular program or program version. We have tested this option with the following programs:

- Aldus PageMaker v4.0 for the Macintosh—Use either byte ordering (Motorola preferred), do *not* leave sizing decisions to the receiving program, and check the "Increased Compatibility" option.
- Aldus FreeHand v3.0 for the Macintosh—Use either byte ordering (Motorola preferred), do *not* leave sizing decisions to the receiving program, and check the "Increased Compatibility" option.

After saving the TIFF file it must be transferred to the destination computer. Once there, you may need to change the "filetype." For example, on the Macintosh you need to change the file's "Type" and "Creator" (we use a desk accessory called DiskTop). The "Type" should be "`TIFF`" (all capital letters). The "Creator" is less important (we usually just specify "`????`").

Screen Image Window

After successfully loading a picture, SuperConvert displays a window containing the screen image of the picture. If you load a true color image (format names that begin with an asterisk), the Remap dialog box is automatically shown to allow you to generate the initial screen image.

The colors in the Screen Image window usually won't be right because the arbitrary colors of an arbitrary picture cannot be displayed on the screen simultaneously with the fixed colors of SuperConvert's menus and windows.

When the Screen Image window is active, you can drag the mouse in the window to select a rectangular area of the image. You can resize the selection rectangle without starting over by holding down the Option key when you click in the window (this lets you reposition the corner closest to the pointer).

This "clipping area" is used only when saving the conversion. Printing and other image operations use the entire picture unless you use the Crop To Clipping Area command.

Notes

Menus

Menus contain all the commands available in SuperConvert. The titles of all the menus are shown in the menu bar at the top of the screen. To see the commands available in a menu, pull it down by pointing to its title and pressing the mouse button. When a command is dim it is not available at the moment.

This section is organized by the menu titles and menu commands.

Command Keys

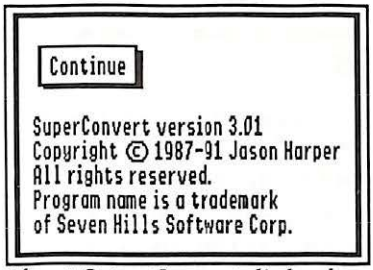
Many commands have keyboard shortcuts that let you give the command without using the mouse. These shortcuts are listed to the right of the corresponding commands in the menus. For example, pull down the File menu and you will see several keyboard shortcuts listed: ⌘L for Load & Convert, ⌘R for Re-convert Last File, and so on.

To use a keyboard shortcut, hold down the Command key (⌘) and press the letter listed on the menu. The Command key has a hollow apple and a cloverleaf on it, and is located between the Option key and the tilde key at the lower-left of the keyboard. *NOTE: Although shortcuts in this manual are shown as uppercase, all SuperConvert shortcuts can be accessed by holding the Command key and typing either a lower case* ***or*** *upper case letter.*

(Apple) Menu

About SuperConvert

Choose About SuperConvert from the (Apple) menu to display the program's version number and copyright information.

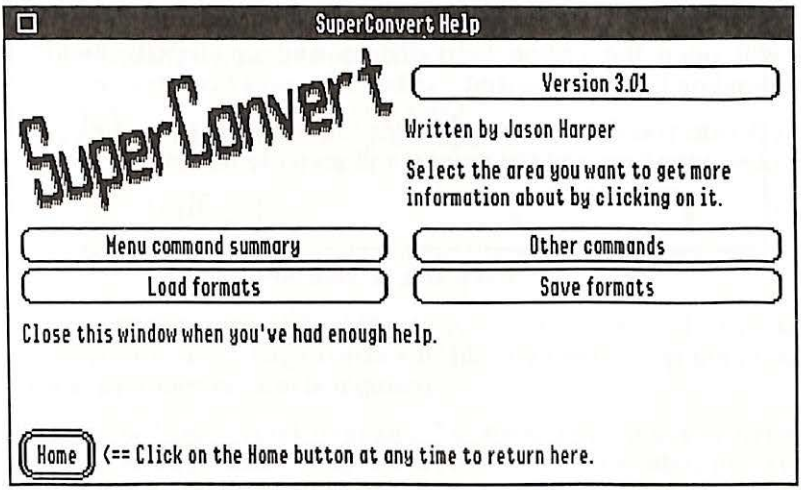


About SuperConvert dialog box

Help

Shortcut: ⌘? or ⌘/

Choose Help from the (Apple) menu to display the online help. An error is displayed if the help files cannot be found in the same folder that SuperConvert itself was run from, or if there was insufficient memory to load them. Giving this command while the help window is already on the screen will bring it in front of all other windows.



The SuperConvert Help window

Clicking a button either displays help for that item, or further topics to choose from. Click the close box to close the help window.

NOTE: The help files occupy over 100K of memory while the help window is open. After the window has been closed, this memory is available for other uses. If you are going to be doing something that requires a lot of memory (such as working with a large true color image), close the help window first.

Menu Item Help

Choose Menu Item Help from the (Apple) menu to get help for a menu item. After choosing this option, the mouse pointer temporarily turns into a "Menu Item" pointer:

"Menu Item" mouse pointer

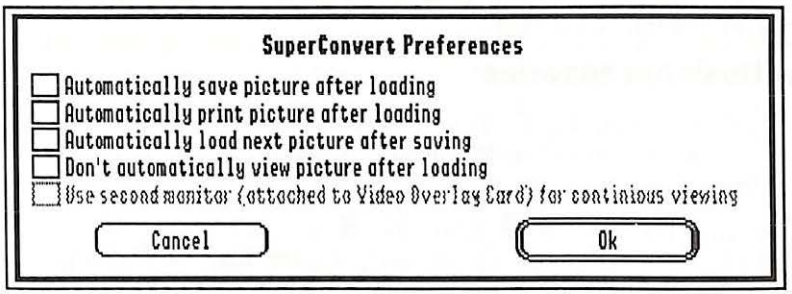
Use this pointer to pull down and select a menu item (even if it's dim). This will open the online help display and go directly to the page corresponding to that command.

If you decide you don't want help after selecting this command, just click the mouse anywhere and the pointer will revert to normal.

Preferences

Shortcut: ⌘- or ⌘_

Choose Preferences from the (Apple) menu to change several SuperConvert options. Changes to these options remain in effect until the program is exited; they are reset to normal the next time you run the program.



Preferences dialog box

The first four options are self-explanatory, and are intended to make it easier to convert or print large batches of files by minimizing the number of times that user intervention is required.

The fifth option, "Use second monitor..." is only enabled if you have an Apple Video Overlay Card (VOC) installed in your computer, the Video Overlay Toolset (TOOL033) installed on your startup disk, and the VOC has dual video capability (always true of the current model).

If you check this option, any full screen display of the image will "stick" on the monitor connected to the VOC, while normal program operation continues on the monitor attached to the back of the IIGS

This could be useful in giving a presentation: the presenter could be loading the next picture on the computer's monitor while the audience continues to view the previous picture on a large-screen TV connected to the VOC. The "Don't automatically view picture after loading" preference option may be useful in conjunction with this option.

WARNING: Do not turn on this option unless you have two monitors connected as described above! *If you don't have a second monitor attached, you won't be able to see what you're doing (if you ignore this warning, the following series of keystrokes should get you back in control: ⌘- M Return ⌘F).*

Desk Accessories

When you start the computer, each desk accessory uses some memory that cannot be used by SuperConvert.

NOTE: SuperConvert has been tested extensively. If you experience strange problems with SuperConvert, remove all desk accessories, then add them back one at a time to see if a particular accessory is causing the problem. If the problem still exists with no accessories installed, please send a report to Seven Hills' technical support.

New Desk Accessories

New Desk Accessories (NDAs) you installed appear under the (Apple) menu. NDAs are stored in the System/Desk.Accs folder of your startup disk (filetype $B8).

To use an NDA, choose it from the (Apple) menu like any other command. For information about using a particular NDA you must refer to the documentation that came with it.

Control Panel

Control Panel lets you change various system-related options, including your printer setup. Refer to the documentation that came with your Apple IIGS for information about changing the printer type and connection method.

Disk Initializer

Disk Initializer is provided free with SuperConvert. It allows you to initialize 3.5" and 5.25" disks without having to quit the program you are using.

Classic Desk Accessories

To access any Classic Desk Accessories (CDAs) stored in the System/Desk.Accessories folder of your startup disk (filetype $B9), hold Ö-Control down while you press and release Esc.

For information about using a particular CDA you must refer to the documentation that came with it.

File Menu

Load & Convert

Shortcut: ÓL or click Load in the load formats window

After selecting the kind of file to load in the Load Formats window, choose Load & Convert from the File menu to choose which graphic files to convert. Multiple files can be selected: Hold down the Shift key when clicking to select ranges of files, and hold down the Ó key to select individual files. Folders can also be selected, but they will be ignored unless the "Load all pictures in selected subdirectories" box is checked.

Normally, only those files that *appear* to SuperConvert to be of the chosen file format (as determined by the file's filetype, auxtype, and length) will be selectable; others will be dim. If you want to attempt a conversion on a file that isn't selectable, you can click the "Allow files to be selected regardless of type" box. Don't do this without good reason because files that are inappropriate for the selected load format will produce meaningless results and can possibly crash the program.

After selecting the file(s) to load, click Accept to load the first one. If more than one file was selected, the Load Next command can be chosen to load the next file.

Re-convert Last File

Shortcut: ÓR

Choose Re-convert Last File from the File menu to restart the conversion process on the file you most recently attempted to convert (even if the conversion failed). The new conversion is attempted with the selected load format (even if the file doesn't pass the new format's file length, filetype, and auxtype checks). Thus, if you use the wrong load format at first, you can easily highlight a different format and choose Re-convert Last File without having to select the file again.

Load Next

Shortcut: ⌘N or click Load Next in the Load Formats window

Choose Load Next from the File menu to load and convert the next file that was selected with the Shift or ⌘ key in the Load & Convert command. This command is available only if there are files remaining to convert.

You can choose Load & Convert from the File menu even when there are files remaining. Loading a single file will occur immediately without affecting the remaining files; selecting multiple files to load will add to the list of remaining files, and the next file in the list will be loaded.

Cancel Remaining Files

Choose Cancel Remaining Files from the File menu to remove the list of remaining files from a multiple file Load command. This command is available only if there are files remaining from a multiple file Load & Convert command.

Save Conversion

Shortcuts: ⌘S or click Save in the Save Formats window

After selecting the type of picture to save from the Save Formats window, click Save to store a converted picture on disk. This command is available only when a picture has been successfully converted.

Exchange Load/Save Paths

SuperConvert separately remembers the disk locations at which you have most recently done a Load or Save operation. This makes it easy to convert a series of files from one disk to another without having to navigate to the correct location every time you do a load or save.

Choosing Exchange Load/Save Paths from the File menu allows you to swap the remembered locations for loading and saving. This is useful if you want to verify that a file you just saved looks right (you can exchange paths, load the graphic, then exchange paths again to switch back to the initial loading/saving locations).

Print (Normal)

Prints the current screen image to the printer that you chose with the Control Panel NDA. This command, as well as all other printing-related commands in SuperConvert, presents two consecutive dialog boxes for selecting print options, corresponding to the "Page Setup" and "Print" commands in most other programs.

If the screen image is a 320 mode graphic, SuperConvert temporarily switches into 320 screen mode to present the print dialog boxes. This is necessary to insure the printer setup is correct for the graphic mode of the image being printed.

The "Page Setup" dialog box typically lets you specify information about the paper size you want to use (specific options depend upon which printer driver is selected). If the printout will be taller than a single page, select a "No gaps between pages" option if it is available. See the "Print Alignment Page" description for a way to eliminate vertical gaps in printouts that are wider than a single page.

After setting these options, click OK to present the "Print" dialog box for the chosen printer. Select the number of copies, page range, quality, and so on (actual choices depend upon which printer driver you are using). After setting these options, click OK to begin printing.

When printing an image that is larger than the printer can handle, multiple pages are produced (these pages can be spliced together to form the entire image). Use the "Print (Enhanced)" command for more control over this process.

NOTE: Multipalette images will not print properly.

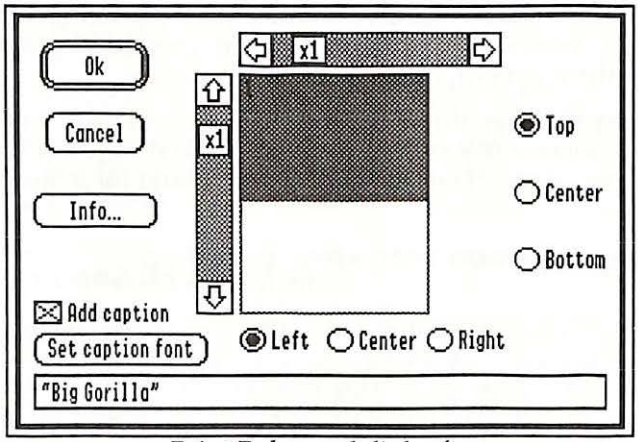
Print (Enhanced)

Shortcut: ⌘P

This variation on the "Print (Normal)" command gives you additional options to control the sizing and positioning of the screen image on the paper, and allows you to add a one-line caption in any font. *NOTE: "Enhanced" and "Normal" print refers to the added control over printing; it* ***does not*** *refer to actual print quality.*

After choosing Print (Enhanced), the Page Setup dialog box appears. If the printout will be taller than a single page, select a "No gaps between pages" option if it is available (specific options depend upon which printer driver is selected). See the "Print Alignment Page" description for a way to eliminate vertical gaps in printouts that are wider than a single page. See the "Print (Normal)" section for more information about the Page Setup dialog box.

After accepting the "Page Setup" options, SuperConvert displays a dialog box that lets you adjust the size and position of the printed image:



Print Enhanced dialog box

As you change the options, the graphic representation shows the size of the resulting image in green, and indicates how many pieces of paper will be used for the printing. The numbers represent the page number; if the paper jams or you have other printing problems, you can refer to these numbers to determine where to continue printing.

The scroll bars are used to expand or shrink the image, and the Top, Center, and Bottom options are used to position the image on the printout.

To add a caption at the bottom of the page: Type the text for the caption then click Set Caption Font to choose the font and size for the caption (this also automatically checks the "Add Caption" checkbox).

After setting these options, click OK to present the "Print" dialog box for the chosen printer. Select the number of copies, page range, quality, and so on (actual choices depend upon which printer driver you are using). After setting these options, click OK to begin printing.

Print Alignment Page

Choose Print Alignment Page from the File menu to Print a test page with an L-shaped mark at each corner of the printable area. The size of the printable area depends upon the options you select in the "Page Setup" dialog box. For example, checking a "No gaps between pages" option (if available) gives a larger printable area. *NOTE: The actual print options depend upon the chosen printer driver.*

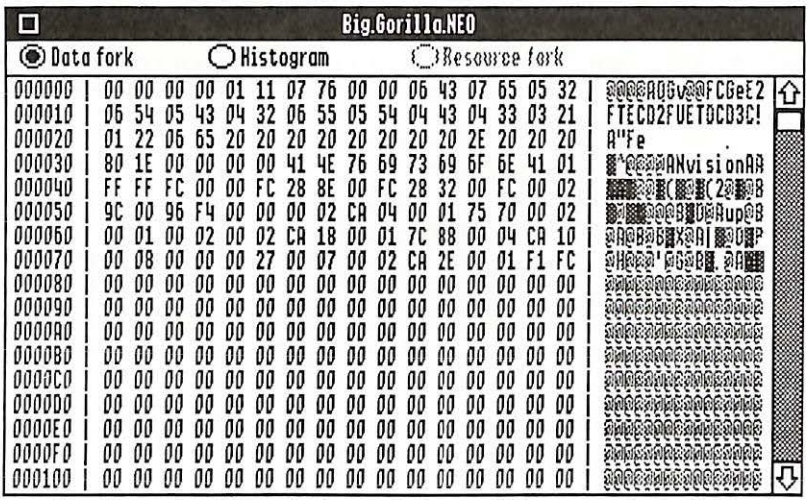
If a printed image will be more than a single page wide, you can print an alignment page to help adjust the paper feed so that the right or left alignment marks are printed exactly on the edge of the paper (you cannot adjust the paper feed position on some printers, such as the LaserWriter). With the paper feed in that position you can easily tape the printed pages together to form the complete image. If you do not adjust the paper feed, you will have to cut one side of the paper off before you can tape the pages together.

After printing, this command can be used again to help return the paper feed so the alignment marks are centered on the paper.

Examine File

Choose Examine File from the File menu to examine the contents of any file. The standard file selection dialog lets you choose which file(s) to examine. Multiple files can be selected: Hold down the Shift key when clicking to select ranges of files, and hold down the ⌘ key to select individual files.

After selecting the file(s) to examine, click Accept to examine the first one. For each file you have up to three options for how you want to view it: the data fork (the normal part of a file that is present in most files), a histogram (spectrum analysis) of the data fork, or the resource fork (generally present only in newer program files). When you are done with each file, click the window's close box to go on to the next file or return to normal program operation.



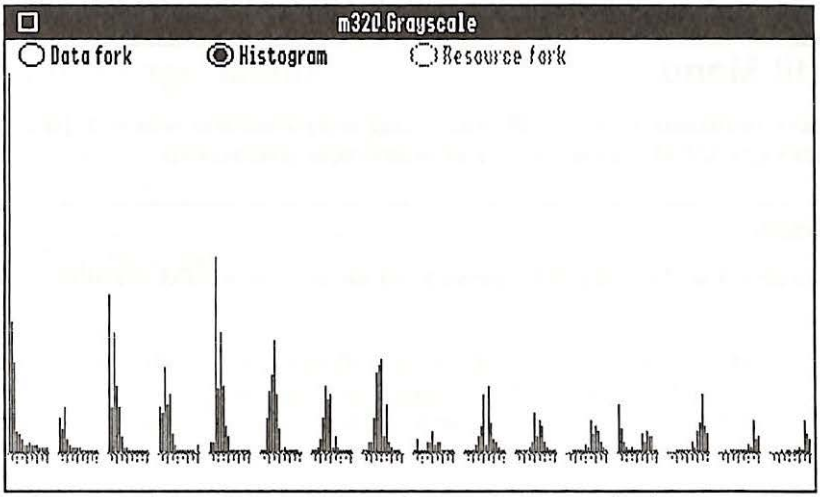
The Examine File window's Data and Resource Fork display

Data and resource forks are viewed in a scrolling window with side-by-side hexadecimal and ASCII text representations. The ASCII text section is color coded as follows:

Normal ASCII characters ($00...$7F): Background is white
High ASCII characters ($80...$FF): Background is green

Control characters ($00...$1F, $80...$9F): Text is purple
Printable characters ($20...$7F, $A0...$FF): Text is black

The Delete character (normal $7F, high ASCII $FF) is shown as a triangle.



The Examine File window's Histogram display

The histogram display is a bar graph showing the number of times each of the 256 possible byte values appears in the file. Pointing to a bar shows what byte value the bar represents, its exact number of occurrences in the file, and its percentage of the file .

This feature is intended to help identify files of completely unknown format...many formats have a distinct distribution of byte values. For example, IBM .PCX graphics files almost always have their highest peak at byte $C1, with the next few sequential bytes also having relatively tall bars. *NOTE: The exact interpretation of the results depends on the format of each file, and is beyond the scope of this documentation.*

Quit

Shortcut: ⌘Q

Choose Quit from the File menu to exit SuperConvert and return to the program launcher. No warning is given if you try to quit before saving, so be sure you have saved your most recent conversion if you intend to keep it.

Edit Menu

The commands in the Edit menu are only enabled when a New Desk Accessory (NDA) is the frontmost window on the screen.

Close

Choose Close from the Edit menu to close an active NDA window.

Screen Image Menu

This menu is enabled after an image is loaded. These commands operate only on the current screen image; they do not affect or use the true color image in any way.

View Full Screen

Shortcut: ♁F

Choose View Full Screen from the Screen Image menu to display the full screen view of the current screen image. If the image is larger than the screen, it will automatically scroll to show you all parts of the image. You also can use the mouse to scroll the full screen image.

Press any key or the mouse button to exit. *NOTE: If you press a valid ♁ key command shortcut, the command will be executed immediately.*

If you have an Apple Video Overlay Card and have checked the "Use second monitor" preference, the full screen image will "stick" on the monitor connected to the VOC, while normal program operation continues on the monitor attached to the back of the IIGS.

View Half Size

Shortcut: ♁H

Choose View Half Size from the Screen Image menu to display the current screen image at half actual size. This allows the largest image SuperConvert can handle to fit entirely on the screen. *TECHNICAL NOTE: The hyperbolic curve at the lower right of the screen represents the 64K image size limitation—no image's lower right corner can extend into that area.*

Press any key or the mouse button to exit. *NOTE: If you press a valid ♁ key command shortcut, the command will be executed immediately.*

If you have an Apple Video Overlay Card and have checked the "Use second monitor" preference, the half size image will "stick" on the monitor connected to the VOC, while normal program operation continues on the monitor attached to the back of the IIGS.

View X4 Magnified

Shortcut: ⌘4

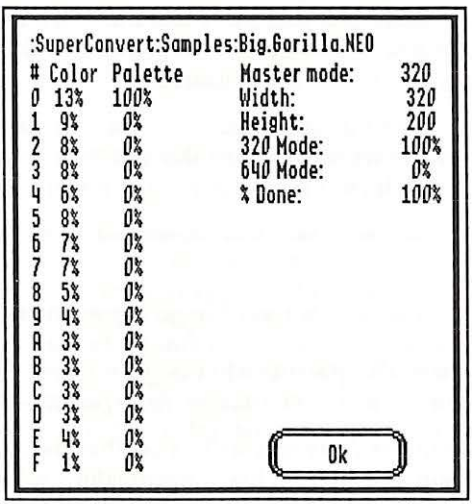
Choose View X4 Magnified from the Screen Image menu to display the current screen image magnified four times, allowing you to see details you couldn't at actual size. Moving the mouse scrolls the image on the screen.

Press any key or the mouse button to exit. *NOTE: If you press a valid ⌘ key command shortcut, the command will be executed immediately.*

Image Info

Shortcut: ⌘I

Choose Image Info from the Screen Image menu to calculate statistics on pixel and palette usage within the current screen image. *NOTE: This command is different from the Image Info command on the True Color Image menu, which generates similar statistics for the current true color image.*



Screen Image's Image Info dialog box

The results are not very meaningful for multipalette images because pixels with the same color number, but in different palettes, will be added together regardless of whether they represent the same color. To get an accurate count of the colors in a multipalette image, choose Discard True Color Image from the True Color Image menu (if enabled) then choose Image Info from the True Color Image menu.

Crop To Clipping Area

Choose Crop To Clipping Area from the Screen Image menu to discard all but the selected area of the screen image. *NOTE: You cannot Undo this command; if you think you'll need the complete image later, first save the full image to disk, then crop it.*

This option is available only if an area of the screen image has been selected. To select a portion of the screen image, click in the screen image window to activate it, then drag the mouse to create a selection rectangle. You can resize the selection rectangle without starting over by holding down the Option key when you click in the window (this lets you reposition the corner closest to the pointer).

If you just want to *save* the selected area you do not need to use this command. However, to work with just the selected area in any other way (print, get info on the selected area, etc.) you must use this command first.

Store Palette

Choose Store Palette from the Screen Image menu to remember the palette of the current screen image for use in future Remap operations. This is stored in memory only; the palette will be gone the next time you run the program. *NOTE: For multipalette images, only palette #0 is stored.*

This feature allows you to convert pictures so that they use the exact same palette as some existing picture. This is especially useful for the following situations:

- If you want to remap images for use with a program that requires a particular palette, but that palette isn't directly supported with the Remap Image command. For this situation, load a sample image that has the palette you need to use, choose Store Palette, then use the stored palette when remapping other images.
- If you are converting animation frames from other computers for use with an animation program on the IIGS. Animations generally look smoother if all the frames use the same palette, so it's best if you remap each frame to use the same palette. For this situation, load a "typical" animation frame (one that includes as many of the colors used throughout the animation as possible), choose Store Palette, then use the stored palette when remapping the remaining animation frames.

Use As Desktop Background

Choose Use As Desktop Background from the Screen Image menu to replace the desktop background with the current screen image. If the current screen image is larger than the screen, the bottom is chopped off; if it is smaller, it is centered on the screen and the area around it is made light blue.

The new background will appear in most desktop programs, and lasts until a different background is specified, the Revert To Normal Desktop command is given, or the machine is shut down. *NOTE: See the description of the Desktop Background INIT save format if you want the special background to be permanent.*

Any screen image can be used as the desktop background, but the image won't look right unless the palette of the program matches the palette of the original image.

You can use the Remap Image command to convert an image to a different palette or mode. For example, most 640 mode programs use the default color palette, so try remapping the original image to "640 x 200 dither mode with the default color palette."

TIP: To make the image appear correctly in all screen display modes you can remap it to "320 x 200, 16 color mode with a Black and White only palette." Of course, this probably will not match the original picture's quality.

Oscilloscope Art

Choose Oscilloscope Art from the Screen Image menu to view the screen image on a standard oscilloscope connected to the IIGS's composite video output jack. Choosing this command replaces the current screen image with an image that will display on an oscilloscope. The effective resolution of the display is 320 by 100 with 3 gray levels. *NOTE: There is no known reason why anyone would want to do this, but Jason thought it would be cool. If you find a use for this feature, please let us know!*

Required Settings

Set the following display options in the Control Panel: Type–Monochrome, Border–Black.

Set the following oscilloscope settings: DC-coupled input, TV Line sync if available, about 0.5 volts/div vertical sensitivity, about 20 msec/div horizontal sweep, adjust trigger level for a stable image.

True Color Image Menu

This menu is enabled only if an image is in memory. Commands on this menu are used to generate new screen images and operate on the current true color image.

A true color image cannot be displayed directly on the IIGS screen because it can contain thousands of colors, and the resolution is limited only by available memory.

A true color image is produced in one of two ways:

- By loading a true color image (graphics that load as a true color image are indicated by an asterisk to the left of the Load Format name).
- By choosing a command from the True Color Image when no true color image is in memory (a true color image will automatically be created from the current screen image).

Remap Image

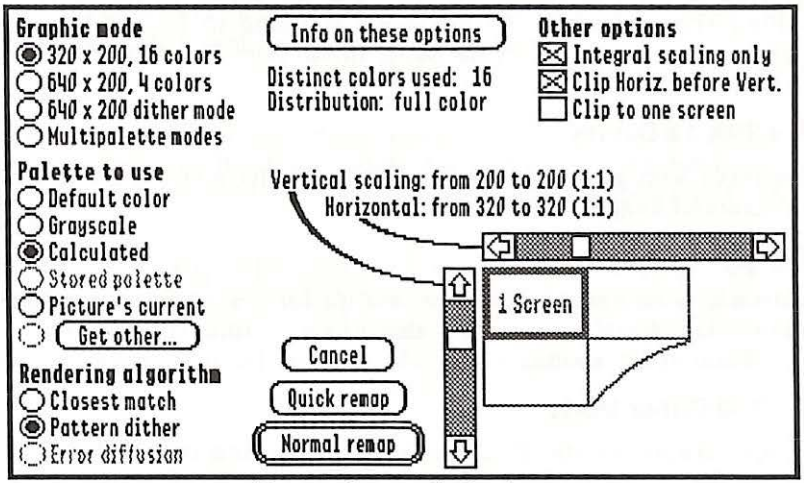
Shortcut: ♁M

Remapping is the process of converting a true color image into a screen image that the IIGS can display directly. This command is done automatically whenever a true color image is loaded. Remapping an image produces a new screen image; it does not affect the true color image. Because the true color image remains constant, you can remap as many times as you need without having to reload the original file.

The Remap Image command is a very important and powerful feature. It is used to convert existing images into a format that is best for a particular program. For example, AppleWorks GS is a 640 mode program that normally uses the standard color palette. If you load a 320 mode graphic that uses an odd color palette into AppleWorks GS, the results will not be what you expect. By using the Remap Image command, you can convert the 320 mode, odd palette graphic into a 640 mode graphic with a standard color palette that will look better in AppleWorks GS.

NOTE: GraphicWriter III is also a 640 mode program, but its import "translators" automatically convert the graphic you're loading into a 640 mode graphic that uses the default color palette. However, additional quality can be gained by using SuperConvert to pre-process some graphics. See Appendix A for tips on converting graphics for use with GraphicWriter III.

The Remap Image dialog box contains many options, but it's actually quite simple to use:



Remap Image dialog box

There are three ways to exit the Remap options dialog box:

- Click **Cancel** to return to normal program operation with the existing true color image and screen image (if there was one) intact. If there wasn't a screen image, one will be created that just contains a message indicating that there isn't a real screen image available at the moment.
- Click **Quick Remap** to get a quick preview of an image to help you determine what options to select for a normal remap. Quick remap takes only a few seconds, but completely ignores all the options described below and is limited to a single screen image. See "View Approximation" for another way to preview images.
- Click **Normal Remap** to produce a screen image from the true color image using all of the remap options described below. A normal remap can take several minutes to complete (the progress of the remapping process is displayed and you can stop the process by pressing ⌘Period).

Graphic Mode

This area is used to select the IIGS graphic mode to be used by the resulting screen image. If the image is going to be used in another program, you should select the same mode here that the other program uses.

320 x 200, 16 Colors

Compatible with general purpose paint programs, gives good results with many-colored images.

640 x 200, 4 Colors

Results are generally not the best, except for grayscale conversions and images that don't have more than four colors. Compatible with DeluxePaint in 640 mode.

640 x 200 Dither Mode

A unique feature of the IIGS that gives alternating columns of pixels a separate four-color palette, allowing a wider range of colors while still giving high resolution. Compatible with programs such as AppleWorks GS, GraphicWriter III, HyperCard IIGS, and HyperStudio.

Multipalette Modes

Uses the IIGS's ability to assign different palettes to each row of pixels. Up to 16 palettes can be used, making it theoretically possible to have 256 colors on the screen. Compatibility of multipalette pictures is extremely limited, but for programs that do support multipalette images this option gives the best results for images that contain many more colors than the IIGS can normally display.

Palette To Use

Some programs require a specific palette for pictures. In other cases, you may wish to use a special palette to achieve a certain effect. The palette options available here depend on the selected graphics mode.

Default Color

Uses the standard color palette for the selected mode. This is usually the option you want for programs that use a fixed palette, such as GraphicWriter III and HyperStudio. Not a good choice, otherwise, because the default palette may not have a good match for some colors in the image. Not available in multipalette modes.

Grayscale

Uses a palette consisting entirely of shades of gray. Good if the image is going to be printed on a non-color printer, or is known to consist only of shades of gray. Not available in multipalette modes.

Calculated

Generates a palette that best represents the colors used in the image. The program insures that black and white are at their usual positions at each end of the palette, and sorts the other colors in increasing order of brightness.

If you don't need a specific palette, this option gives the best color results. If the image is grayscale or black & white (this will be indicated at the top center of the Remap options dialog after a few seconds), you should select Grayscale palette instead, and use the Error Diffusion option described later.

Stored Palette

Allows remapping to a specific palette. First load a picture containing the desired palette, chose Store Palette from the Screen Image menu, then you can remap images using this option.

This option is available only when remapping to the same graphic mode (e.g., if you store a 320 mode palette, it will be available only when remapping to 320 mode).

Picture's Current

Uses the palette of the most recently loaded, remapped, or otherwise generated screen image. This option is available only in the graphics mode that was used by that image.

This option is useful if you are using a True Color Image menu command to achieve some effect, such as scaling or rotation of a screen image, in which case the original palette will be a good choice for the new image.

Get Other

Presents a dialog box containing various specialized palettes that may be useful. The list is different for each graphics mode, and your most recent choice is remembered separately for each mode so you don't have to reselect it each time you remap.

If the multipalette graphic mode is selected, these options control the technique used to generate the palettes rather than specifying a particular palette. *NOTE: Some of these techniques are still experimental and may not perform very well.*

Rendering Algorithm

Determines the method used to select the colors of pixels in the remapped screen image. These options have no effect on the compatibility of the produced image, but they may have a great effect on quality and suitability for special uses. The available options depend on the selected graphics mode and palette.

Closest Match

For each pixel to be produced, this option selects the single, closest color match from the palette. This is the only option that some conversion programs provide. The results aren't good if the original image contains many colors, since multiple original colors will become the same color on the screen and therefore be indistinguishable.

This option is useful if you know that all colors will have an exact, individual match (for example, if you just flipped or rotated an image and are using Picture's Current palette option), and in some cases with images scaled down to a very small size.

Pattern Dither

For each color in the image being remapped, this option determines a pattern of colors from the selected palette which together closely approximate the original color. This allows many more original colors to be distinguishable than there are colors in the palette. The patterns are 2x2 pixels in 320 mode, 4x2 in the two 640 mode options, and various sizes in the multipalette options. This is usually the option to choose unless the Error Diffusion option is available.

Error Diffusion

Error diffusion is a special option that can simulate up to 256 levels of gray. It is available only if you have selected a grayscale or black and white palette. It works by calculating the inaccuracy in each pixel chosen, then adjusting the pixels around it to compensate for that inaccuracy.

For example, if the color chosen for a particular pixel is too dark because an exact match wasn't available, the nearby pixels will be lightened to compensate for it.

You should usually choose error diffusion when available. The one case where you should not select this option is for animation sequences because this technique tends to produce slightly different results in identical areas of images (due to different levels of errors being diffused from non-identical areas). These slight changes will slow down the animation, possibly impair quality, and greatly increase the memory and disk space requirements of the animation.

Scaling

Adjusts the size of the screen image to be produced. Scaling is separately adjustable for the horizontal and vertical directions from a reduction of 1:16 to an enlargement of 4:1. The scaling is adjusted with the use of two scroll bars, and is displayed both numerically (original and scaled sizes, along with their ratio if it can be expressed by small integers) and graphically (a green rectangle which shows the size of the resulting image relative to the screen, represented by a purple grid).

If the scaled image is larger than the screen image size limit, the word "Clipped" appears, and the green rectangle splits into two areas: a thin-bordered area which shows how big the image should be, and a thick bordered area which shows how much of it you will actually get.

See "Other Options" (next section) for ways to adjust the behavior of scaling and clipping.

Other Options

These checkboxes affect how image clipping and scaling work.

Integral Scaling Only

Normally the scaling scroll bars only allow you to select scalings that correspond to simple integer ratios (e.g., 1:2, 5:3, etc.). If you wish to scale an image to an exact size that isn't such a ratio, turn this option off.

Clip Horizontal Before Vertical

If the scaled image is larger than one screen in both directions, and is over the 64K screen image size limit, this option controls whether the horizontal or vertical size is reduced first in order to make it fit within the limit. There is no effect otherwise.

Clip To One Screen

This option clips the image so it will be no larger than one screen.

View Approximation

Shortcut: ⍁A

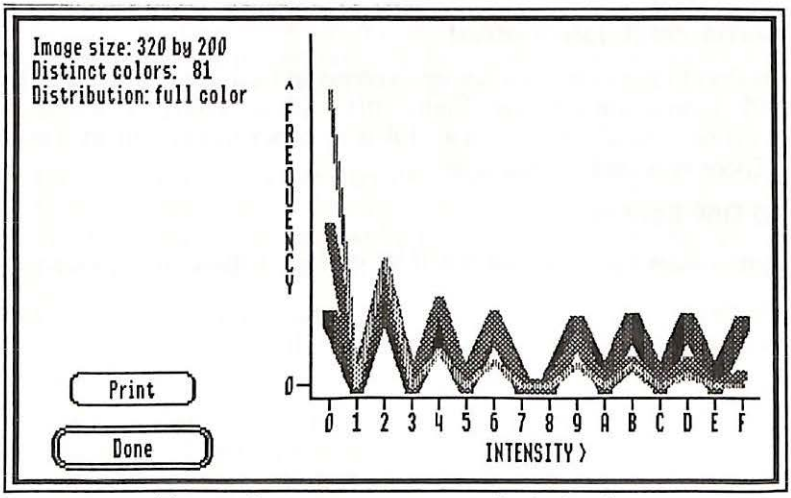
Choose View Approximation from the True Color Image menu to show an approximation of the current true color image. The primary use for this option is to preview what a true color image looks like without taking the time required to remap the image into IIGS-displayable format.

View Approximation is capable of simulating over 29,000 colors. Because the red, green, and blue components of the image are split onto separate lines instead of being mixed together in each pixel, the results are somewhat dim and the image is highly magnified.

Image Info

Shortcut: ⍁T

Choose Image Info from the True Color Image menu to calculate the number of colors in the current true color image, and display a color usage graph. Also shown is a classification of the image as either black & white, grayscale, or full color. *NOTE: This command is different from the Image Info command on the Screen Image menu, which generates similar statistics for the current screen image.*

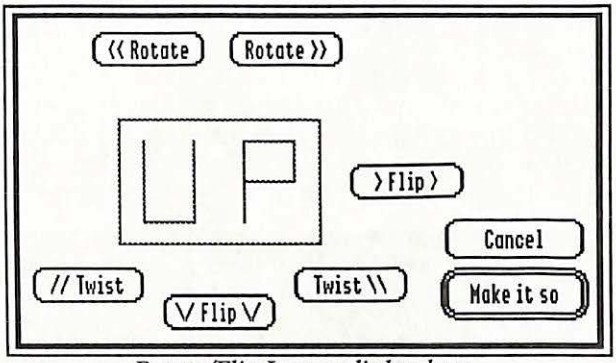


True Color Image's Image Info dialog box

TECHNICAL NOTE: The color count only distinguishes between colors that correspond to one of the IIGS's 4,096 displayable colors (internally, up to 32,768 colors and 256 gray levels are stored).

Rotate/Flip Image

Choose Rotate/Flip Image from the True Color Image menu to rotate or flip the current true color image.



Rotate/Flip Image dialog box

Images can be flipped along either axis. If the image size is over 800 x 600 only flips are allowed due to memory limitations.

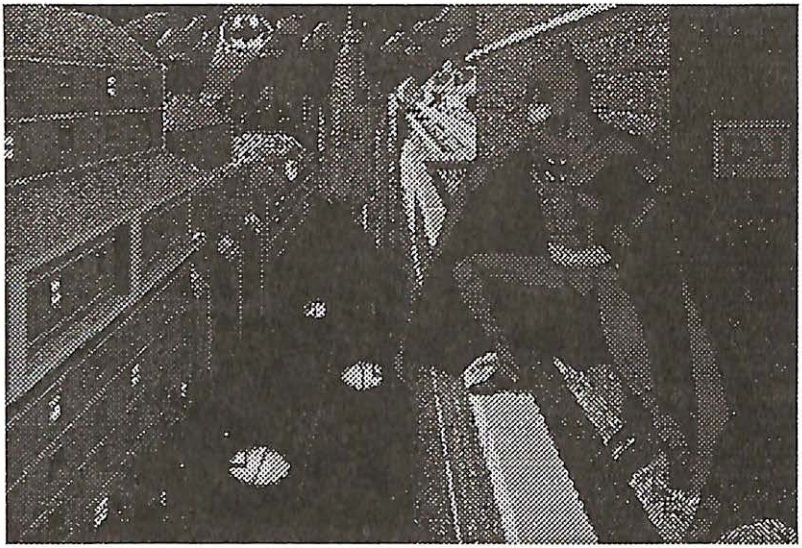
Rotation is done in multiples of 90° and can take as long as several minutes to complete.

Twisting is a shortcut for rotating *and* flipping an image. Because twisting involves rotation, it can take as long as several minutes to complete.

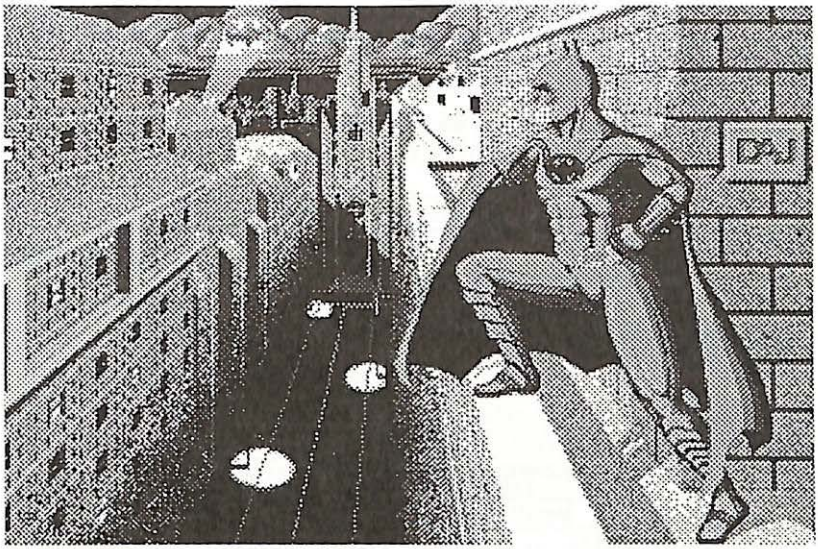
Histogram Equalization

Choose Histogram Equalization from the True Color Image menu to adjust color values in the current true color image so the number of pixels at each intensity level are approximately equal. This option usually increases the contrast of an image, and is intended to help fix images that appear dark or washed out.

Often the result gives too much contrast, but this is generally an easier problem to correct in a painting program than the original lack of contrast. This command works on any image, but works best if the image is grayscale or is going to be remapped to a grayscale palette.



An image BEFORE Histogram Equalization



The same image AFTER Histogram Equalization

Discard True Color Image

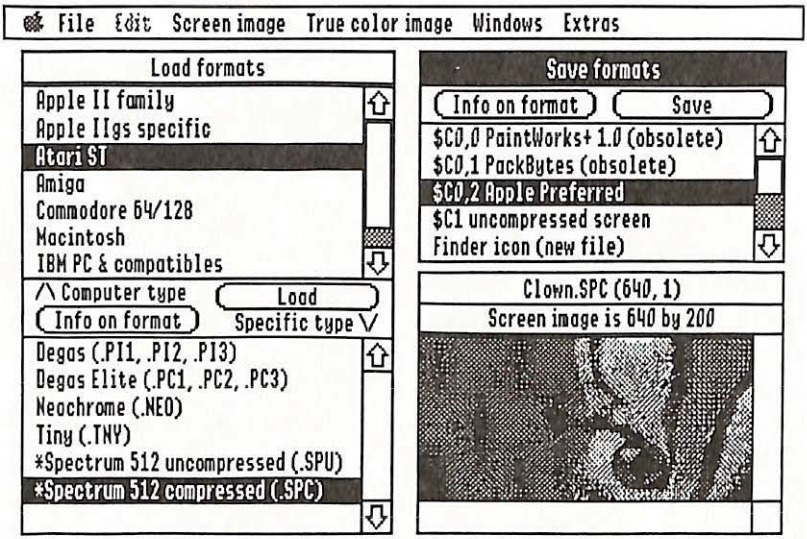
Choose Discard True Color Image from the True Color Image menu to release the memory used by the current true color image (available only if there is a true color image in memory). The screen image is not affected. *NOTE: Lack of a true color image doesn't mean that you can't use a True Color Image menu command...using a command will generate a true color image from the current screen image.*

A very large amount of memory is required to store a true color image (for example, at two bytes per pixel a 640 x 200 image requires 256,000 bytes of memory to store). This command lets you release that memory for other uses such as printing.

It is also useful when you have remapped a true color image into a screen image, and want to use a True Color Image menu command on the resulting image rather than on the original true color image.

Windows Menu

Choose Normal Positions from the Windows menu to place the program's windows to their starting positions and sizes.



The "normal positions" for the SuperConvert windows

The remaining items (Load Formats, Save Formats, Screen Image) bring the named window in front of all others, so that you can use it without having to move other windows out of the way.

Not included on the Windows menu is the Help window (which can be brought to the front by choosing a help command) and any new desk accessory windows (which can be brought to the front by choosing the NDA from the (Apple) menu).

Extras Menu

This menu contains features that didn't fit anywhere else. Some of them really don't have anything to do with graphics conversion and might be removed from future versions.

Available Font List

Choose Available Font List from the Extras menu to generate a graphics image, up to one page in size, that contains the name and size of the fonts you have installed in the System/Fonts folder on your startup disk.

If there are more fonts than will fit on a page, the More Available Fonts command will generate an additional page. A printout of this font list is handy to have near the computer when you are selecting a font in a word processor, paint program, and so on.

The fonts are displayed in order of increasing size, and are sorted alphabetically within each size. Because the list is displayed in the font itself, fonts such as Cairo (which contain symbols instead of letters) will be unreadable. See "Font Key Chart" for information on getting a printout of symbol fonts.

NOTE: The result of this command is a graphics image. Therefore, when printing the result you might not want to select the "better text" option that some print dialog boxes have (because it's a graphics image, "better text" may actually make the printout look worse).

More Available Fonts

Choose More Available Fonts to continue the process started by Available Font List. Several repetitions may be needed if you have many fonts installed. This command is available only if the last Available Font List or More Available Fonts command did not finish displaying all of your installed fonts.

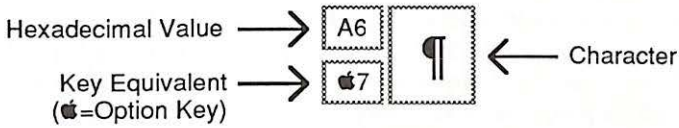
NOTE: The result of this command is a graphics image. Therefore, when printing the result you might not want to select the "better text" option that some print dialog boxes have (because it's a graphics image, "better text" may actually make the printout look worse).

Font Key Chart

Choose Font Key Chart from the Extras menu to generate a graphic image showing all characters of a particular font, size, and style along with their hex value and key equivalent.

After selecting the font, size, and style you wish to display, SuperConvert generates the graphic image. The result is limited to one page, so you may need to use a font size smaller than the desired size in order to fit all the characters onto the page. If you pick a size that doesn't exist, a size that is exactly half or double an existing size is better than a random size.

Each character is displayed in the following format:



The hexadecimal value is mainly of use to programmers.

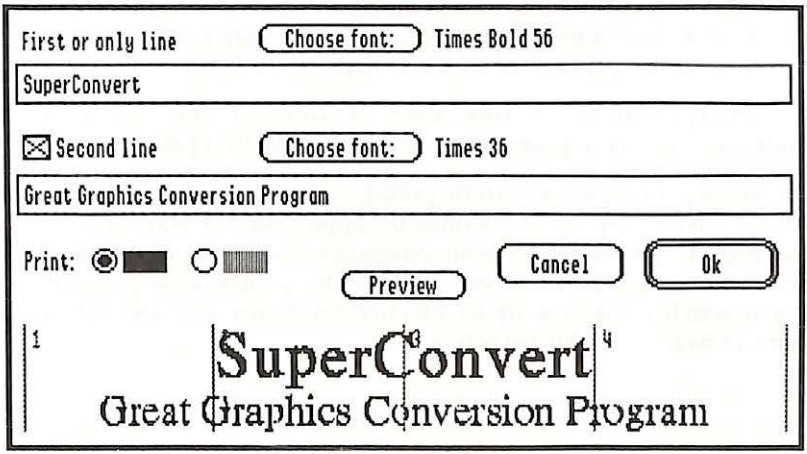
The key equivalent shows what keys are used to produce that character from within an application. The Option key is represented by the ⌥ symbol. Entry of key equivalents must be exact—if it shows an "A", an "a" won't work! *NOTE: The equivalents are only valid if you have the key translation set to Standard in the Alphabet section of the Control Panel NDA.*

NOTE: The result of this command is a graphics image. Therefore, when printing the result you might not want to select the "better text" option that some print dialog boxes have (because it's a graphics image, "better text" may actually make the printout look worse).

Print Banner

Choose Print Banner from the Extras menu to generate a banner with one or two lines of text in any installed IIGS font, size, and style. *NOTE: The banner is produced by drawing very large characters using standard IIGS fonts. Unless you have huge font sizes available, the printed result will be poor compared to programs that were specifically written to print banners (e.g. Print Shop).*

First the "Page Setup" dialog box for the chosen printer is displayed. In this dialog box, do **not** select sideways/wide/landscape printing because that is handled automatically. After specifying the Page Setup options, the Print Banner options are shown:



Print Banner dialog box

Type the first and second lines for the banner. A different font can be chosen for each line. You'll generally want to select the largest available size for best print quality, but if your banner has two lines you may want to choose a font of another available size to control the relative size of the two lines. If you pick a size that doesn't exist, a size that is exactly half or double an existing size is better than a random size.

The Print option determines whether the characters will be black or gray (gray reduces ribbon wear).

The Preview option shows how many pages the banner requires, and shows how the two lines (if selected) are aligned.

After setting the banner options, click OK to display the "Print Job" dialog box for the chosen printer. If there is a "No gaps between pages" option, you must select it to not have gaps on the printout. Do not select "Draft" quality printing.

Revert To Normal Desktop

Choose Revert To Normal Desktop from the Extras menu to undo the effect of a Use As Desktop Background command, a desktop background INIT file saved onto your startup disk, or any other utility which changes the desktop pattern. This releases up to 32K of memory for program use.

This command is available only if there is currently a nonstandard desktop pattern.

System Info Report

Choose System Info Report from the Extras menu to generate a summary of your system's current state and configuration, including memory usage, installed desk accessories/drivers/etc., Control Panel settings, and so on. The results can be printed, or saved to disk as a text file.

Exact interpretation of this data is beyond the scope of this documentation, and requires some knowledge of IIGS programming.

If you are reporting an apparent problem with SuperConvert via U.S. or electronic mail or by FAX, it would be appreciated if you include a copy of this report, generated on your computer under conditions as close to those that were in effect at the time of the problem as possible. This makes it much easier for us to identify problems that are specific to a certain hardware or software setup.

Appendices

Appendix A — Tips and Suggestions

Appendix B — Out To Launch

Notes

Appendix A
Tips and Suggestions

This appendix contains tips and suggestions for using SuperConvert to its fullest.

Making Slides

By following the steps below, you can take virtually any graphic and have it made into a color slide (the results work best with 320 mode and true color graphics; the "dithering" in 640 mode gives a poor result).

To make a slide from a 320 mode screen image, first save the screen image to disk. You can use a hardware device, such as a FingerPrint GS printer card, to freeze a screen and save it to disk. There are also public domain, shareware, and commercial programs available to save a screen image.

1. Use SuperConvert to load the graphic you want to make into a slide.
2. If you load a true color image the Remap Image dialog box will appear. If this occurs, set the remap options to 320 graphics mode, calculated palette graphic, using pattern dither algorithm, then click Normal Remap.
3. Select the TIFF (Tagged Image File Format) Save Format and click Save.
4. Specify the size of the graphic. To ensure you get just a single IIGS screen, click the "One screen wide, one screen (200) high" button.
5. Type a name and set the disk location to save the graphic, then click Save.
6. Set the TIFF Save options ("Screen image only," "Motorola byte ordering," and "Increase compatibility") and click Save. *NOTE: If the "True color image only" option is available, selecting that might produce better color results.*
7. Transfer this file to the Macintosh and change the file's "Type" to "TIFF" and the "Creator" to "????".

8. Contact any Macintosh slide service company to have the "color TIFF" file printed on a slide imager. Many slide imaging companies advertise in Macintosh and IBM magazines.

   The slide imaging company that helped us test this feature is:

   SlideImagers
   Attn: Tony Casadonte
   22 Seventh Street
   Atlanta, GA 30308
   1-800-232-5411 or 1-404-873-5353
   FAX 1-404-873-1517

   They were very cooperative, and after working with us they won't be thoroughly confused if you mention "Apple IIGS." In fact, if you use SlideImagers you can skip step #7 entirely! Just save the TIFF files onto a blank IIGS disk (so it only contains the files you want printed) and clearly mark the disk "IIGS format."

   For approximately $6 per image they will transfer the files to the Macintosh, fix the Type and Creator, produce the color slides, and return them to you! *NOTE: Contact them before sending any disks to get current pricing, payment methods, and other information.*

   SlideImagers also has the ability to make color transparencies and color printouts from these files—contact them for further information.

Converting Graphics for GraphicWriter III

GraphicWriter III has the unique ability to handle graphics with 72 lines-per-inch vertical resolution, while other programs only handle 36 lines-per-inch images. Usually when you import a graphic into GraphicWriter III, each line of the graphic is automatically repeated. This method of doubling the vertical resolution doesn't increase the quality of the image...it just "stretches" the graphic so it will be the same size it was in the original program.

By using SuperConvert to "pre-stretch" an image, you can get a better quality image for importing into GraphicWriter III (where GW III simply doubles each line, SuperConvert does some fancy calculations to make each line "significant" in the stretched graphic). *NOTE: The method described below is beneficial for true color and 320 mode images. 640 mode and MacPaint images should be imported directly into GraphicWriter III for best results.*

After pre-stretching and saving the graphic with SuperConvert, you import the new graphic into GraphicWriter III just like you import the clip art that was supplied with GW III (use the Super Hires translator and be sure to check the "Half Height" option).

The exact steps for doing this conversion:

1. Load the original graphic with SuperConvert. Keep in mind that 320 mode and true color images work best (there is no noticeable difference for 640 mode graphics, and the MacPaint translator works better for importing MacPaint graphics).
2. Choose Remap Image from the True Color Image menu, then set the following options:

   Graphic mode: Select 640 x 200 dither mode

   Palette to use: To produce a color image select Default Color; to produce a pseudo-grayscale picture in GW III select Grayscale, or to produce a black and white image click Get Other and select Black and White only.

   Rendering algorithm: Select Pattern Dither. If Error Diffusion can be chosen, select it instead.

Steps 1 and 2 apply equally as well to other 640 mode programs that use the default color palette (e.g. AppleWorks GS, HyperStudio, and so on). The third step is the special one that applies only to GraphicWriter III:

3. Use the Vertical Scaling scroll bar to stretch the graphic to twice the original height (vertical scaling should read "2:1").
4. Click Normal Remap to create the new image.

5. After the remap is done, select the "$C0,2 Apple Preferred" Save Format and click Save.

   The largest size GraphicWriter can handle in a single painting frame is 640 x 400. If the new graphic is larger than 640 x 400, click the "One screen wide, two screens (400) high" button, otherwise click the "Same as original" button.

   Type a name for the graphic, select the disk location to store the graphic, and click Save.

To import the newly-saved graphic into GraphicWriter III:

1. Start GW III, open a document, and create a painting frame.
2. Choose Import from the File menu, select the Super Hires translator, then click OK.
3. Click the "Half Height" option.
4. Find and select the newly-saved graphic file.
5. Click Open to import the graphic.

While this process of using SuperConvert requires more steps than simply importing a graphic straight into GraphicWriter III, the increased quality is well worth the extra effort. To compare for yourself, create a second painting frame and import the *original* graphic (don't select Half Height). Print the file or choose Tall Text from the View menu to see the differences between the two graphics.

Notes

Appendix B
Out To Launch

Out To Launch is a simple "program launcher" that is meant to replace the program-launching function of Apple's Finder, thus saving much disk space. It can launch applications and it provides access to the New Desk Accessories on the (Apple) menu. This is especially useful with an NDA such as Disk Access, which provides all the functions of the Finder, plus other functions such as Find File and Show File.

Out To Launch uses about 7K on disk and in memory, and it requires an Apple IIGS with at least 512K memory (ROM 01 or higher) and GS/OS. It should be named Start and placed in the System folder of your startup disk (it is possible to run it from another launcher, but that would defeat its purpose).

The Menus

(Apple) Menu

About Out To Launch—Shows version number, credits, and general information.

File Menu

Shut Down—Ejects all "ejectable" disks and shows the message "You may now switch off your Apple IIGS safely." This shut down is configured so it will not reset RAM disks in case you decide to Restart.

Quit—Quits Out To Launch and returns to the previous program (presumably another launcher). If there is no previous program, then the System launches Out To Launch again.

Edit Menu

This menu is provided for desk accessories.

The Command Buttons

Launch Item

Launch Item launches the highlighted item, unless it is a "dummy line" (a line with no application attached—see *Add Item*).

Launch Other

Launch Other displays the standard "get file" dialog box for you to choose a program to launch (only Folders, P8 System files, and GS/OS applications are displayed).

Add Item

Add Item displays the standard "get file" dialog box for you to choose an application to add to the list (only Folders, P8 System files, and GS/OS applications are displayed).

After selecting an application, a second dialog box appears to let you customize the name of the application as it appears in the list (this does *not* rename the file). See *Edit Item* for information.

You can create a "dummy line" for filler or spacing by holding down the Option key when you click the Add Item button. This skips the file selection and goes directly to the editing dialog box.

Remove Item

Remove Item deletes the highlighted item from the list.

Edit Item

Edit Item opens a dialog box to let you edit the name of the highlighted item as it appears in the list. You are allowed up to 31 characters of free-form entry (anything you can type is acceptable). The items in the list are sorted in ascending ASCII order.

The optional code is not displayed in the list. It is used if you want to group items together on the list (for example, to group graphic applications together you could code each application with a "g").

Clicking the OK button (or pressing Return) stores any changes. Clicking the Cancel button aborts the process.

Error Handling

Out To Launch requires GS/OS, otherwise a "GS/OS required" message will be shown.

The startup disk must be available at program startup and shutdown to load and save your list. If it can't find */System, then you will be prompted to insert the System disk.

Any disk error while loading your custom list of applications presents a message "Problem loading. Error $####" (it is not an error to have no list at all). It is possible to get a memory error during the load; if so, an "out of memory" message is shown and the remainder of the load is aborted.

When saving the list, if the disk is write-protected you will get a message and a chance to try again. Any other disk error presents a message "Problem saving. Error $####."

The program you are trying to launch is verified to be available, otherwise you get a "Can't find program" message and a chance to swap disks.

If there's not enough room to add an item you will get an "out of memory" message, and the item is not added to the list.

Index

This index attempts to reference all the topics you might look up. If you are looking for a particular topic and can't find it, please let us know so we can incorporate it in the next printing of the manual.

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SuperConvert

"SuperConvert is so incredibly flexible (and easy to use) that it can convert virtually any type of graphics file to super hi-res."

—inCider/A+

SuperConvert™ is *the* link between your IIgs and virtually any graphic!

This program converts formats from Apple II, Macintosh, IBM, Atari ST, Amiga, Commodore 64/128, and even computer-independent formats such as GIF, to formats that are usable on your Apple IIgs.

It's easy to use. Just transfer the desired graphic onto a IIgs disk, via modem or other means, then convert it to super hi-res with SuperConvert. Converted images can be printed directly with SuperConvert with a variety of options, including the ability to print wall-size posters!

But SuperConvert is not just for converting formats from other computers! Use its powerful "Remap Image" command to easily convert a 320 mode image so it appears correctly in 640 mode programs. Or change a color image into a grayscale or black and white picture.

SuperConvert can be used to produce color slides from any 320 mode graphic. This feature is perfect for teachers' classroom materials, game players' authentication, and anyone who wants crystal-clear screen shots.

It even generates "font sample" pages, "font key" charts and can make any image appear as your "desktop background."

Use SuperConvert for all your graphics conversion needs!

Suggested retail is only $39.95

Requires: Apple IIgs with 1MB RAM and at least one 3.5" disk drive

Also includes: GS/OS, Out To Launch, and Disk Initializer

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Seven Hills Software