



Ventura Publisher Separator

User's Guide



**VENTURA PUBLISHER
SEPARATOR
User's Guide**

Windows Edition 4.1

610S55123

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Ventura Separator lets you define halftone angles and frequencies for each process color. When you send your separations to a PostScript RIP for imagesetting, the software instructs the RIP to use the specified angles and frequencies to create the halftone separations.

This is where Ventura Software, Inc.'s responsibility ends. The PostScript environment is rapidly evolving; people use a wide range of PostScript versions and RIP/imagesetter configurations. For this reason, users must assume full responsibility for working with the manufacturer or distributor of their imagesetters to determine the appropriate halftone screening information.

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Table of Contents

Introduction	1-1
Prerequisites	1-2
Typographical conventions	1-3
System Requirements and Installation	2-1
System requirements	2-1
Using Ventura Separator	3-1
Defining picture settings	3-2
Preview area	3-3
Picture Setup	3-3
Range	3-3
Gradation	3-4
Sharpness	3-5
Color	3-6
Apply	3-7
Reset	3-7
OK	3-7
Cancel	3-8
Defining Separation Settings	3-9
Document Setup	3-9
Press/Paper	3-10
Press Gain	3-11
Gray Balance	3-11
Range	3-11
Gradation	3-12
Sharpness	3-13
Color	3-13
Screening Model	3-14
Line Screen	3-14
Using colors	3-15
OK	3-16
Edit	3-16
New	3-16
Delete	3-16
Duplicate	3-16
Process or Spot	3-17

Overprint or Knockout	3-17
PANTONE® colors	3-19
Defining halftone screening	3-22
Printing color separations of documents with continuous-tone images	3-26
Printing directly to an imagesetter	3-28
Printing to a file	3-30

Ventura Separator Reference	4-1
------------------------------------	------------

Picture Settings	4-1
Picture Settings dialog box	4-2
Separation Settings	4-5
Separation Settings dialog box	4-6
Define Colors	4-10
Define Colors dialog box	4-11
Specify Color dialog box	4-12
Select PANTONE® Solid Color and Process Color dialog boxes . . .	4-15
Edit Screening	4-16
Screening Models dialog box	4-16
Edit Screening dialog box	4-17
About Separator	4-19

Appendix A	
Problems	A-1

Ventura Separator Error Messages	A-1
Define Colors Error Messages	A-3

Glossary	Glossary-1
-----------------	-------------------

Index	Index-1
--------------	----------------

Welcome to Ventura Separator, the application that adds continuous-tone color-separation capabilities to Ventura Publisher.

Ventura has developed color publishing software based on a modular design in which extension modules perform functions in the color reproduction process. Together, the extensions to Ventura Publisher support image acquisition, image processing, color correction, and color separation.

Ventura Scan interfaces Ventura Publisher to a variety of popular desktop scanners, allowing you to acquire images from the scanner and import them directly into Ventura Publisher frames.

Ventura Separator gives you global separation controls that allow you to print four-color separations of Ventura Publisher pages, with color images in position. Ventura Separator also lets you define spot colors and set halftone screening angles.

Ventura ColorPro provides a higher level of separation control and global color correction than that supported by Ventura Separator. However, you can save color correction parameters in Ventura ColorPro for use by Ventura Separator. In a network environment, color corrections could be made in Ventura ColorPro, with parameters passed to Ventura Separator for output. The two extensions use identical color separation algorithms. Ventura ColorPro saves its separations to disk, where they can be loaded into Ventura Publisher frames for output.

For example, if you were producing a color page in Ventura Publisher, you could use the color extensions as follows:

1. Use Ventura Scan to scan a color image into a Ventura frame.
2. Use Ventura Separator to define spot colors for the page.
3. Use Ventura Separator to make color separations of the page. (Alternatively, you could use Ventura ColorPro to make separations of the image, then place the separation master file in the Ventura frame.)

We have created this product to support the growing need for improved desktop prepress tools. We would like to keep you abreast of any

enhancements that we make to Ventura Separator. Please fill out the enclosed registration card and return it to us (no FAXs, please) so we can keep you informed of changes and updates.

We recommend that you read this manual before using Ventura Separator. If you experience problems that you are unable to solve with the help of the manual and your dealer, and you are sure that the problem can be isolated to Ventura Separator, please have your serial number and a description of the problem handy when you call for technical support.

Prerequisites

This manual is not intended to teach you how to use your PC or Windows 3.0 software. If you are unfamiliar with the PC, learn the basic operations of setting-up, starting, and using your PC, as well as pointing, clicking, and dragging objects with the mouse, and choosing commands from drop-down menus and dialog boxes. For assistance with these operations, consult your PC owner's guide. Similarly, you should know the basics of using Ventura Publisher, including importing images created in other applications. For assistance, consult your Ventura Publisher documentation. You should also know how to set up, start, and use your printer or imagesetter. For assistance, consult the owner's guide for your printer.

How to use this manual

This manual is divided into four chapters and one appendix, plus a glossary and an index:

Chapter 1: Introduction to Ventura Separator.

Chapter 2: System Requirements and Installation tells you the minimum system requirements needed in order to install and run Ventura Separator. Requirements for optimum software performance are also given.


Chapter 3: Using Ventura Separator teaches you how to make color separations with Ventura Separator.

Chapter 4: Ventura Separator Reference describes Ventura Separator's working environment and defines the function of every menu and dialog box command. Use this chapter as a reference to Ventura Separator's windows and commands.

Appendix A. This Appendix lists error messages associated with Ventura Separator, together with explanation and suggested actions.

The Glossary and Index follow Appendix A.

Typographical conventions

In this manual, the  callout emphasizes important points.

The names of menus, menu and dialog box options, and keyboard commands, when they refer to actions which you should perform, appear in boldface type.

Throughout this manual, the phrase **Select the...** is used. This means you should move the mouse cursor to the middle of the item that you are going to select, and then press the left mouse button once.

Except when explicitly stated otherwise, the computer hard disk is always assumed to be **C**. The term *floppy disk* refers to either 5¼" or 3½" diskettes.

System Requirements and Installation

Ventura Separator is a dynamic link library, designed to run with Ventura Publisher. Refer to your *Ventura Publisher Installation and Configuration Guide* to install Ventura Publisher and Ventura Separator.

System requirements

Ventura Separator is intended to run under Ventura Publisher Windows Edition 4.0 or higher, on an 80386-based IBM PC, or equivalent, which is utilizing DOS 3.3 or higher and the Windows 3.0 or higher graphical environment. The recommended hardware configuration should include a minimum of 4 megabytes of internal RAM, 40 megabytes of free space on the hard disk, a Microsoft compatible mouse, a 256-color VGA graphics card, and a VGA monitor. While full color-separation functionality will be available with standard VGA output, a math coprocessor, a 24-bit color card which supports Windows 3.0 in the 24-bit color mode, and a high-resolution multi-scan monitor are recommended if you desire a full-color representation of the image on your monitor, and optimum software performance.

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Using Ventura Separator

This chapter provides step-by-step instructions for using Ventura Separator to create color separations.

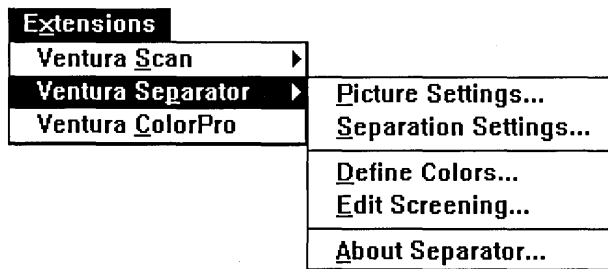
Ventura Separator lets you apply color corrections to individual images, and preview the results of the corrections on-screen. You can also access color corrections made in other applications. In addition, Ventura Separator lets you define halftone screen information to optimize your separations for different imagesetters.

Ventura Separator can color separate a variety of continuous-tone images, including TIFF and PCX format files. In addition, Ventura Separator will separate EPSF line art files that include standard color definitions.



No color corrections can be made to images with EPSF, OLE, or Windows Metafile formats.

After Ventura Separator is installed, a new menu called Extensions is added to the Ventura Publisher menu bar. The Ventura Separator option and its associated cascading menu, illustrated below, are accessed as an option in the Extensions menu.



The cascading menu has five options:

- Picture Settings
- Separation Settings
- Define Colors
- Edit Screening
- About Separator

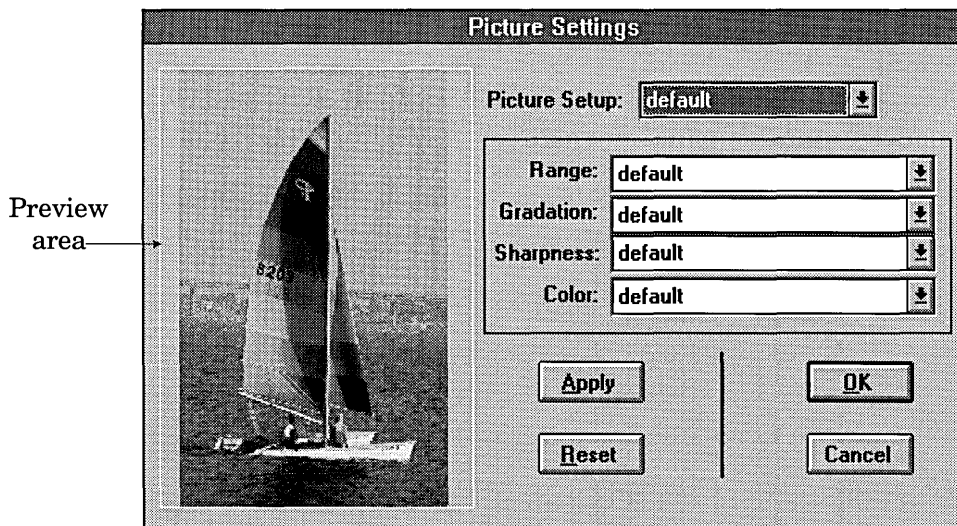
Defining picture settings

The Picture Settings dialog box is your primary control center for making color corrections to images in your Ventura Publisher documents.

The Picture Settings menu option activates the Picture Settings dialog box. From this dialog box, selectable or previously loaded settings may be applied to individual images.



The Picture Settings dialog box is available only when you have selected a Ventura Publisher frame that contains a color image.



Preview area

The preview area displays the image in the selected frame, and the drop-down list boxes let you make color corrections to the image.

Picture Setup

The Picture Setup drop-down list box lets you switch between the standard settings shipped with the program and custom settings obtained from stand-alone separation programs, such as Ventura ColorPro.

When you select a setting in the Separation Settings dialog box (see page 3–9), it will be applied to all images in the document that haven't already had a picture setting applied to them. You can select a different setting to apply to the image. When you do this, the Range, Gradation, Sharpness, and Color drop-down list boxes will update to reflect the setting change. Of course, you can still adjust the picture by using any of the available settings from these drop-down list boxes.

When you change the settings in the Range, Gradation, Color, or Sharpness drop-down list boxes, the Picture Setup drop-down list box adds a "Custom" setting. This setting represents a combination of the Range, Gradation, Color, and Sharpness settings, and will be saved with the image frame when you select the OK button. Changes to these settings are discarded when you select the Cancel button.

Range

The Range drop-down list box lets you define the overall tonal range of the selected image. Tonal range is the difference between the highlight and shadow densities of the image. Desktop scanners sometimes fail to capture the full tonal range of images, resulting in flat images with dark highlights and light shadows. The Range settings compensate for this tendency.

The options are default; Normal; -Highlight; +Shadow; -Highlight, +Shadow; and +Highlight, -Shadow.

The **default** setting uses the setting from the Range drop-down list box in the Separation Settings dialog box.

The **Normal** setting does not affect the tonal range of the image.

The **-Highlight** setting brightens the highlights without affecting the shadows.

The **+Shadow** setting darkens the shadows without affecting the highlights.

The **-Highlight, +Shadow** setting brightens the highlights and darkens the shadows.

The **+Highlight, -Shadow** setting darkens the highlights and lightens the shadows.

For example:



Normal



+Shadow

Gradation

The Gradation drop-down list box lets you define how image density is distributed between the highlight and shadow points established by the Range setting. The different Gradation settings are designed to optimize the contrast and detail in different image density ranges.

The options are default, Normal, Lighten, Strong Lighten, Increase Contrast, Decrease Contrast, Open Quarter Tones, Open Midtones, and Open Shadows.

The **default** setting uses the setting from the Gradation drop-down list box in the Separation Settings dialog box.

The **Normal** setting makes no changes to the gradation. Use this setting if you are satisfied with the tonal gradation of the image.

The **Lighten** setting lightens all tones in the image. Use this setting for dark originals.

The **Strong Lighten** setting gives a more intense lightening to all tones in the image. Use this setting for very dark originals.

The **Increase Contrast** setting lightens light tones and darkens dark tones in the image. Use this setting for images that lack contrast.

The **Decrease Contrast** setting darkens light tones and lightens dark tones in the image. Use this setting for images that have excessive contrast.

The **Open Quarter Tones** setting lightens the light tones in the image. Use this setting to emphasize detail in light areas of your image.

The **Open Midtones** setting lightens the midtones in the image. Use this setting to enhance detail in the midtones.

The **Open Shadows** setting lightens the dark tones in the image. Use this setting to enhance shadow detail in dark images.

For example:



Increase
Contrast



Open Shadows

Sharpness

The Sharpness drop-down list box lets you apply an edge-enhancing process called unsharp masking to the selected image, to control the

sharpness of your separations. Sharpness modifications are not displayed in the preview area.

The options are default, Normal, Strong Sharpen, Blur, Strong Blur, and Smooth/Sharpen.

The **default** setting uses the setting from the Sharpness drop-down list box in the Separation Settings dialog box.

The **Normal** setting enhances edge definition and smoothness in the image.

The **Strong Sharpen** setting applies more intense edge definition enhancement.

The **Blur** setting increases image smoothness. This setting is useful for smoothing images that were scanned from halftoned original art.

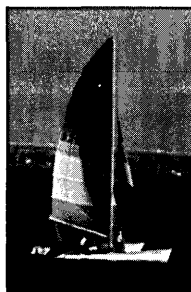
The **Strong Blur** setting applies more intense smoothness enhancement.

The **Smooth/Sharpen** setting applies a smoothing pass to the image, then enhances edge definition. This effect is somewhat stronger than that caused by the Normal setting.

For example:



Strong
Sharpen



Strong Blur

Color

The Color drop-down list box lets you correct for the color contamination that is characteristic of desktop scanners. Color contamination is especially

evident in dark green and blue tones. The different settings activate custom color saturation enhancements for commonly used desktop scanners.

The options are default, RGB Computer Graphics, No Color Correction, Spectre5000, Spectre35, HP ScanJet Iic, Howtek Reflective, Generic Reflective, Sharp Reflective, Nikon LS-3500, Howtek Transparency, Generic Transparency, Sharp Transparency, Microtek ScanMaker 600Z, LaCie, Imapro QCS 120, Imapro QCS 450i, Imapro QCS 600 Reflective, Imapro QCS 600 Transparency, and Array AS-1.

If your scanner is not listed as an option in the Color drop-down list box, select a setting that approximates your scanner.

Use the RGB Computer Graphics setting to separate computer-generated images.

The Generic Reflective and Generic Transparency settings compensate for typical reflective scanner and transparency scanner contamination, respectively.

Apply

Select the Apply button to apply the corrections to the selected image. The corrections will show in the preview area of the Picture Settings dialog box but not in the Ventura Publisher frame. This lets you see the effects of your corrections.

Reset

Select the Reset button to reset the image back to the original setting(s).

OK

Select the OK button to update the image in the Ventura Publisher frame and to close the Picture Settings dialog box.

Cancel

Select the Cancel button to abandon changes in the Picture Settings dialog box, thereby resetting the image back to the original settings, and to close the Picture Settings dialog box.

To specify picture settings:

- Use Ventura Publisher's Frame tool to select the frame containing the image that you want to modify.
- Select the **Picture Settings** option from the **Ventura Separator** menu.

The Picture Settings dialog box will open.

- Use the **Picture Setup** drop-down list box to select a setting to apply to the selected image.

When you select a setting, the Range, Gradation, Color, and Sharpness drop-down list boxes will be updated with the new settings.

- Use the **Range** drop-down list box to define the overall tonal range of the selected image. (See page 3–3 for a discussion of Range options.)
- Use the **Gradation** drop-down list box to define image density distribution between highlight and shadow points established by the Range settings. (See page 3–4 for a discussion of Gradation options.)
- Use the **Sharpness** drop-down list box to specify sharpness control. Ventura Separator uses an unsharp masking process to enhance edge definition and improve detail in your separations. (See page 3–5 for a discussion of Sharpness options.)
- Use the **Color** drop-down list box to specify color saturation control. This option specifies corrections for images from commonly used scanners. (See page 3–6 for a list of options).
- Select the **Apply** button to see the results of your changes.
- When you are satisfied with the image, select the **OK** button to close the Picture Settings dialog box.

Defining Separation Settings

The Separation Settings menu option activates the Separation Settings dialog box. From this dialog box, settings can be applied to the Ventura document as a whole.

The image shows a screenshot of the 'Separation Settings' dialog box. The dialog has a title bar 'Separation Settings'. It contains several drop-down menus: 'Document Setup' (set to 'Custom'), 'Press/Paper' (set to 'Sheetfed Coated'), 'Press Gain' (set to 'None'), 'Gray Balance' (set to 'SWOP'), 'Range' (set to 'Normal'), 'Gradation' (set to 'Normal'), 'Sharpness' (set to 'Normal'), 'Color' (set to 'No Color Correction'), 'Screening Model' (set to 'default 2400'), and 'Line Screen' (set to '150'). There are 'OK' and 'Cancel' buttons at the bottom right.

Document Setup

The Document Setup drop-down list box allows the user to switch between the standard settings shipped with the program and custom settings obtained from stand-alone separation programs, such as Ventura ColorPro. When you select the name of a setting, that setting's document-level controls (Press/Paper, Press Gain, and Gray Balance) are applied to the current document. Furthermore, the setting's picture-level controls (Range, Gradation, Sharpness, and Color) are applied to all the pictures in the document that haven't had picture settings applied to them using Ventura Separator's Picture Settings option. When you open the Picture Settings dialog box after choosing a document setting, the color-correction drop-down list boxes in the dialog box will be set to default, which refers to the setting in the Separation Settings dialog box.

Separation settings are saved in a file called PARAMS.PPT, in the Ventura directory. When settings are saved by Ventura ColorPro, they will automatically appear in Ventura Separator's Document Setup drop-down list box. To copy settings from one computer to another, simply copy the PARAMS.PPT file to the Ventura directory on the computer

where you wish to use the settings. To avoid losing the existing PARAMS.PPT file, rename it before copying the new PARAMS.PPT.

The Press/Paper, Press Gain, Gray Balance, Range, Gradation, Sharpness, and Color drop-down list boxes let you define document-wide separation values for the setting.

Press/Paper

The Press/Paper drop-down list box lets you select the printing press and paper stock that will be used to print your job. Each combination of press and paper can support a certain maximum density of printing ink. Maximum ink density is the combined total of the densities of cyan, magenta, yellow, and black ink printed in the darkest part of your image. Coated papers and sheetfed presses hold higher maximum densities, while more porous papers and web presses hold lower maximum densities. Ventura Separator reduces the density of cyan, magenta, and yellow ink in dark neutral areas of your image to keep the total ink density below the maximum value and enhance shadow detail.

Ventura Separator uses the following maximum ink density values for the seven combinations of press and paper:

Sheetfed Coated	345%
Sheetfed Uncoated	325%
Heatset Web Coated	310%
Heatset Web Uncoated	280%
Heatset Web Newsprint	260%
Open Web Uncoated	245%
Open Web Newsprint	240%

You should consult with your printer to determine the maximum ink density for your job, then select a setting that gives you the correct maximum density.

Press Gain

The Press Gain drop-down list box lets you compensate for the increase in halftone dot size that can occur on press. The options are None, 5, 10, and 15. These options reduce image density to compensate for press gain. Consult with your printer to determine the expected press gain percentage for your job, then select the appropriate setting.

Gray Balance

The Gray Balance drop-down list box lets you select a neutral gradation curve setting for your print job. Different printing processes and ink sets require different Gray Balance settings to maintain the color balance of neutral tones in images. Ventura Separator currently includes one option, SWOP, which conforms to the Standard Web Offset Printing guidelines.

Range

The Range drop-down list box lets you define the overall tonal range of images in the document. Tonal range is the difference between the highlight and shadow densities of the image. Desktop scanners sometimes fail to capture the full tonal range of images, resulting in flat images with dark highlights and light shadows. The Range settings compensate for this tendency.

The options are Normal; -Highlight; +Shadow; -Highlight, +Shadow; and +Highlight, -Shadow.

The **Normal** setting does not affect the tonal range of the image.

The **-Highlight** setting brightens the highlights without affecting the shadows.

The **+Shadow** setting darkens the shadows without affecting the highlights.

The **-Highlight, +Shadow** setting brightens the highlights and darkens the shadows.

The **+Highlight, -Shadow** setting darkens the highlights and lightens the shadows.

Gradation

The Gradation drop-down list box lets you define how image density is distributed between the highlight and shadow points established by the Range setting. The different Gradation settings are designed to optimize the contrast and detail in different image density ranges.

The options are Normal, Lighten, Strong Lighten, Increase Contrast, Decrease Contrast, Open Quarter Tones, Open Midtones, and Open Shadows.

The **Normal** setting makes no changes to the gradation. Use this setting if you are satisfied with the tonal gradation of the image.

The **Lighten** setting lightens all tones in the image. Use this setting for dark originals.

The **Strong Lighten** setting gives a more intense lightening to all tones in the image. Use this setting for very dark originals.

The **Increase Contrast** setting lightens light tones and darkens dark tones in the image. Use this setting for images that lack contrast.

The **Decrease Contrast** setting darkens light tones and lightens dark tones in the image. Use this setting for images that have excessive contrast.

The **Open Quarter Tones** setting lightens the light tones in the image. Use this setting to emphasize detail in light areas of your image.

The **Open Midtones** setting lightens the midtones in the image. Use this setting to enhance detail in the midtones.

The **Open Shadows** setting lightens the dark tones in the image. Use this setting to enhance shadow detail in parts of dark images.

Sharpness

The Sharpness drop-down list box lets you apply an edge-enhancing process called unsharp masking to images in the document to enhance the sharpness of your separations. The options are Normal, Strong Sharpen, Blur, Strong Blur, and Smooth/Sharpen.

The options are Normal, Strong Sharpen, Blur, Strong Blur, and Smooth/Sharpen.

The **Normal** setting enhances edge definition and smoothness in the image.

The **Strong Sharpen** setting applies more intense edge definition enhancement.

The **Blur** setting increases image smoothness. The Blur setting is useful for smoothing images that were scanned from halftoned originals.

The **Strong Blur** setting applies more intense smoothness enhancement.

The **Smooth/Sharpen** setting applies a smoothing pass to the image, then enhances edge definition. The effect is somewhat stronger than that caused by the Normal setting.

Color

The Color drop-down list box lets you correct for the color contamination that is characteristic of desktop CCD scanners. Color contamination is often especially evident in dark green and blue tones. The different settings activate custom color saturation enhancements for commonly used desktop scanners. Settings include RGB Computer Graphics, No Color Correction, Spectre5000, Spectre35, HP ScanJet Iic, Howtek Reflective, Generic Reflective, Sharp Reflective, Nikon LS-3500, Howtek Transparency, Generic Transparency, Sharp Transparency, Microtek ScanMaker 600Z, LaCie, Imapro QCS 120, Imapro QCS 450i, Imapro QCS 600 Reflective, Imapro QCS 600 Transparency, and Array AS-1.

If your scanner is not listed as an option in the Color drop-down list box, select a setting that approximates your scanner.

Use the RGB Computer Graphics setting to separate computer-generated images.

The Generic Reflective and Generic Transparency settings compensate for typical reflective scanner and transparency scanner contamination, respectively.

Screening Model

The Screening Model drop-down list box contains the halftone screening models that have been defined for the current document.

To define a screening model, see page 3–22.

Line Screen

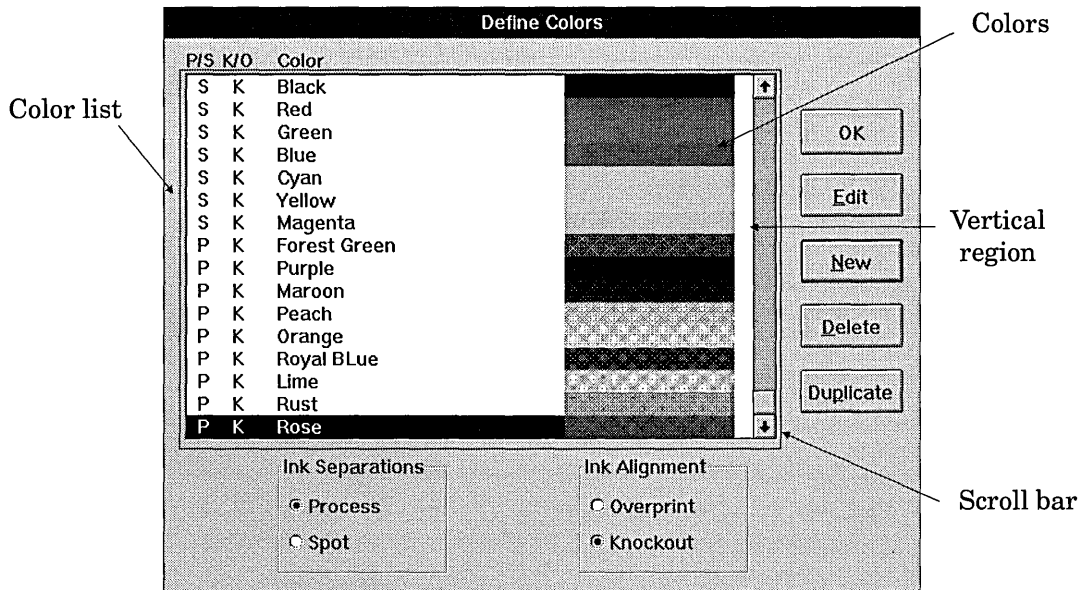
The Line Screen drop-down list box lets you choose the halftone screen frequency at which you wish to output separations. The screening model and line screen that you select in Ventura Separator overrides the settings defined in Ventura Publisher.

To define separation settings:

- Select the **Separation Settings** option from the **Ventura Separator** menu.
The Separation Setting dialog box will open.
- Select the desired setting from the **Document Setup** drop-down list box.
- Select the desired screening model from the **Screening Model** drop-down list box.
- Select the desired halftone screen frequency from the **Line Screen** drop-down list box.
- Select the **OK** button to confirm your setup and to close the Separation Settings dialog box.

Using colors

Ventura Separator lets you use up to 253 colors in Ventura Publisher. The Define Colors option activates the Define Colors dialog box. This dialog box displays the ink separation (spot or process), ink alignment (overprint or knockout), color name, and the color in a list box. The color, type, alignment, and name in the list box are highlighted by selecting any of the four items. Double-clicking will place the selected color into the vertical region to the right of the colors and to the left of the scroll bar.



The buttons in the dialog box perform the following actions:

OK

Select the OK button to confirm the color list and close the dialog box.

Edit

Select the Edit button to open the Specify Color dialog box and define new color characteristics for the selected color.



You cannot edit PANTONE® colors. To create a CMYK version of a PANTONE color, use the Duplicate button.

New

Select the New button to open the Specify Color dialog box and define a new color.



Selecting the New button will begin a new color from white. In order to start a new color that is close to an already defined color (say magenta), select the Duplicate button, then adjust the settings to create the new color.

Delete

Select the Delete button to delete the color entry from the listbox (and color palette). Delete is not applicable for the primary colors (which cannot be altered or deleted): Black, White, Cyan, Magenta, Yellow, Red, Green, and Blue.

Duplicate

Select the Duplicate button to add the selected color as another entry in the list box and place it after the last defined color in the list box.

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The New, Edit, and Duplicate buttons of the Define Colors dialog box invoke the Specify Color dialog box.

Process or Spot

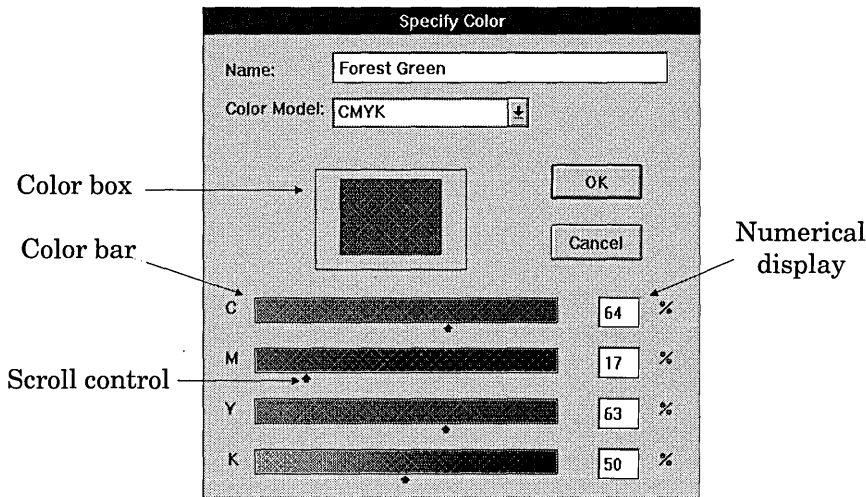
The Process and Spot radio buttons let you specify if the color should be color separated when you print. Spot colors are printed on separate plates, while Process colors are broken into their cyan, magenta, yellow, and black components and printed on the four process color plates.

Overprint or Knockout

If you select Overprint, the selected color will be set to overprint other colors in the document. If you select Knockout, the selected color will knock out all other colors in the document.

Say, for example, that you want to print red type (100% magenta, 100% yellow) on a green background (100% cyan, 100% yellow) and you have specified red and green to be process colors (to be printed on the process color plates). If you set red to knockout, your final printed piece will look like the file on your monitor (red type on a green background). On the other hand, if you set red to overprint, the magenta and yellow in the red will overprint the background, resulting in dark brown type on a green background.

The Specify Color dialog box, which is opened when you select New, Duplicate, or Edit in the Define Colors dialog box, lets you define a color using one of several different color models. The available color models are CMYK, CMY, RGB, HLS, PANTONE® Solid and PANTONE® Process colors.



The color bars, with associated scroll controls and numerical displays, let you modify the color components of the composite color. Four bars will be displayed for the CMYK color model, illustrated above, and three bars for all others. Depending upon the selected color model, the bars correspond to and display separate components of cyan, magenta, yellow and black; cyan, magenta, yellow; red, green, blue; or hue, saturation, intensity.

If the color being specified is intended to be a replacement color, then the color box will be divided into two regions, one for the original color and one for the new color. The color box displays the color as you edit it.

Ventura Separator lets you specify PANTONE colors from two different sets of colors. Select PANTONE® Solid to open a dialog box in which you can select a PANTONE color representing a pre-mixed spot color. Select PANTONE® Process to open a dialog box in which you can select from a collection of process color mixes chosen by PANTONE for their consistent color.



After selecting a PANTONE® Solid or PANTONE® Process color, you can still use the controls in the Define Colors dialog box to specify whether the color will be printed as Spot (separated on its own plate) or Process (separated on the cyan, magenta, yellow, and black plates).

When you define a PANTONE spot or process color, the Select PANTONE® Color dialog box will open. Depending on which type of PANTONE color you selected, the color swatches in the Select PANTONE® Color dialog box will display PANTONE spot or process colors.

To define a new color:

- Select **Define Colors** from the **Ventura Separator** menu.

The Define Colors dialog box will open.

- Select the **New** button.

The Specify Color dialog box will open.

- Enter a name for the new color in the **Name** field.

- Select the color mode from the **Color Model** drop-down list box. The options are **CMYK**, **CMY**, **RGB**, **HLS**, **PANTONE® Solid**, and **PANTONE® Process**.

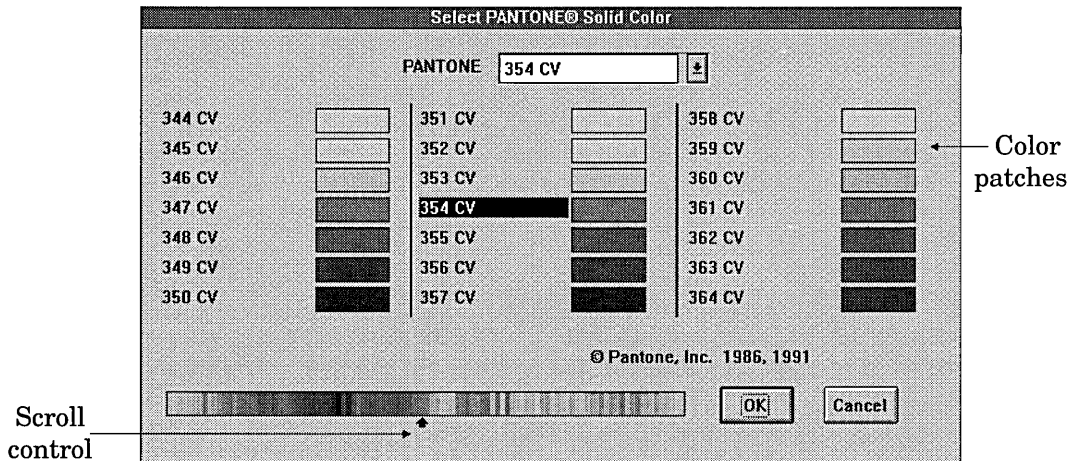
The color bars, with associated scroll controls and numerical displays, let you modify the color components of the composite color. Four bars will be displayed for the CMYK color model and 3 bars for all others. Depending upon the selected color model, the bars correspond to separate components of cyan, magenta, yellow and black; cyan, magenta, yellow; red, green, blue; or hue, saturation, intensity.

- Use the scroll bars to define the new color in the selected color model.

When you move a scroll bar, the colors in the other scroll bars are updated to reflect the effect of the color that you are adjusting. This lets you see the color mix as you define the components of a color.

PANTONE® colors

When you select **PANTONE® Solid** or **PANTONE® Process** from the **Color Model** drop-down list box a **Select PANTONE® Solid Color** or **PANTONE® Process Color** dialog box will open.



PANTONE® Color computer hard copy simulations used in this product are four-color process simulations and may not match PANTONE®-identified solid color standards. Use PANTONE Color Reference Manuals for accurate color.

PANTONE Color simulations are only obtainable on licensed hardware when driven by qualified Pantone-licensed software packages. Contact Pantone, Inc. for a current list of qualified licenses. Pantone, Inc. assumes no responsibility for color inaccuracies on non-licensed output devices.

This dialog box lets you select a PANTONE color. The colors in the scroll bar represent the middle color in every second column of a normal PANTONE color book. To select a PANTONE color, you can use the scroll bar to locate the general area of the PANTONE color, then select the desired color from the color patches. Alternatively, you may type a valid PANTONE color number in the PANTONE box and press the Tab key.

In the Select PANTONE® Solid Color dialog box you can type the first three letters of the name, if it is alphabetic rather than numeric, then press the Tab key. However, in cases where several colors begin with the same letters, for example, the process colors, you should type in the full name in the PANTONE box, then press the Tab key.

- Select the **OK** button to confirm your new color and to close the Select PANTONE® dialog box.

The Specify Color dialog box, with the new color displays.

- Select the **OK** button to confirm the new color setup and to close the Specify Color dialog box.

You will return to the Define Colors dialog box, with the new color highlighted.

- Select the **OK** button to confirm the new color and to close the Define Colors dialog box.

To edit an existing color:

- Select **Define Colors** from the **Ventura Separator** menu.

The Define Colors dialog box will open.

- Select a color, then select the **Edit** button (or, alternatively, select the **Duplicate** button to edit a **copy** of the selected color).

The Specify Color dialog box will open.

- (Optional) Edit the name of the color in the **Name** field.

- Select the color model from the **Color Model** drop-down list box. The options are CMYK, CMY, RGB, HLS, PANTONE® Solid, and PANTONE® Process.



You cannot edit PANTONE colors. To create a CMYK version of a PANTONE color, use the Duplicate button.

The color bars, with associated scroll controls and numerical displays, let you modify the color components of the composite color. Four bars will be displayed for the CMYK color model and 3 bars for CMY, RGB, and HLS. Depending upon the selected color model, the bars correspond to and display separate components of cyan, magenta, yellow and black; cyan, magenta, yellow; red, green, blue; or hue, saturation, intensity.

- Use the scroll bars to adjust the color in the selected color model.
- Select the **OK** button to confirm your adjustments and to close the **Specify Color** dialog box.

You will return to the Define Colors dialog box, with the edited color highlighted.

-
- Select the **OK** button to confirm the new color setup and to close the Define Colors dialog box.

To delete a color:

- Select **Define Colors** from the **Ventura Separator** menu.
The Define Colors dialog box will open.
- Select the color to be deleted from the list by clicking on it.
- Select the **Delete** button.
This removes the color from the list.
- Select the **OK** button to close the Define Colors dialog box.
Black will be substituted for the deleted color in your document.

Defining halftone screening

Ventura Separator lets you specify halftone screening angles and frequencies to optimize separations for your production requirements or for specific imagesetters. As you develop different combinations of halftone frequency, angle, and resolution for particular imagesetters, you can save these sets of screening information, or “screening models,” for later use. Screening models can then be selected in the Separation Settings dialog box.



When you select a screening model and line screen, the halftone screening information will override the halftone setup you have selected with Ventura Publisher. If you are using a standard screening model shipped with the program, you can select it with Ventura Publisher (refer to the Set Screening section in Chapter 8 of the *Ventura Publisher Windows Edition Reference Guide*). If you wish to use a custom screening model that you have created in Ventura Separator, you must select it in the Separation Settings dialog box.



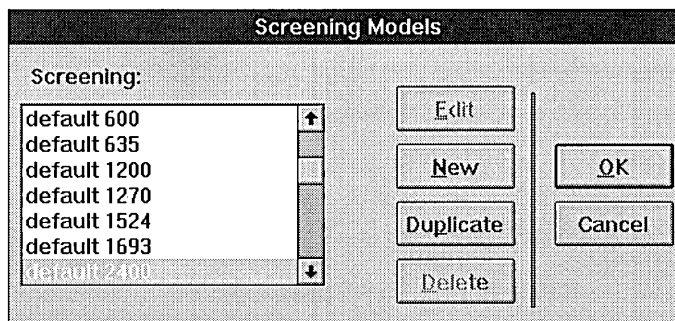
Ventura Separator includes default halftone models, which you can't edit or delete. The Edit and Delete buttons will also be grayed-out when you have selected a screening model that was created by an application other than Ventura Separator. If you wish to make a new model based on a default model, duplicate it and edit the copy.

The Edit Screening menu option activates the Screening Models dialog box. The models from this dialog box can be edited, created, duplicated, or deleted.

To create, edit, or duplicate screening models:

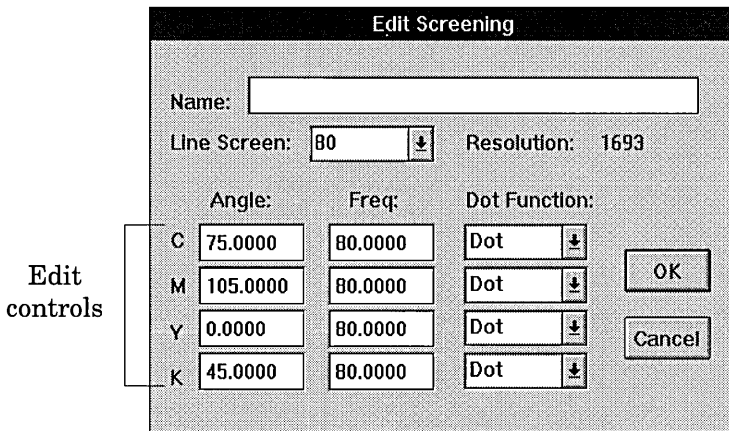
- Select **Edit Screening** from the **Ventura Separator** menu.

The Screening Models dialog box will open. The Screening scroll list displays the screening models currently defined for Ventura Separator.



- To create a new screening model, select the **New** button.
- To edit an existing model, select the model from the **Screening** scroll list, then select the **Edit** button.
- To duplicate an existing model, select the model from the **Screening** scroll list, then select the **Duplicate** button.

The Edit Screening dialog box will open.



This dialog box lets you enter halftone screen frequency, angle, and PostScript dot function for cyan, magenta, yellow, and black. When you print with the screening model selected, Ventura Separator will use the halftone screening information specified in the Separation Settings dialog box.

Using this dialog box, you can alter the individual screening records of a model. The Name field is the name of the screening model being edited and the name can be changed from here. The Line Screen drop-down list box displays all the line screens available in this model. In the drop-down list box, the line screen numbers are upper-bounds. For example, if you have settings for 130, 140, and 150 lpi, the 140 lpi setting will be used for any line screen between 131 and 140. The 150 lpi setting would be used for screens from 141 to 150, and so on. The Edit controls let you modify other parameters, including Angle, Frequency, Dot Function, and Resolution.

- Enter screen angles (in degrees from horizontal) and frequencies (in lines per inch) for cyan, magenta, yellow, and black.
- If you are creating a new screening model, select the output resolution (in dots per inch) from the **Resolution** drop-down list box. If you are editing an existing screening model, you cannot change the resolution.
- Select the dot function for each color.

The Dot Function drop-down list boxes list the PostScript dot functions for each of the process colors. The options are Dot, Line, Ellipse, Square, and Tri-dot (a PostScript triple-dot function).

- Enter a name for your new set of screening information in the **Name** field.
- Select the **OK** button to confirm the settings and close the Edit Screening dialog box.

To delete a screening model:

- Select **Edit Screening** from the **Ventura Separator** menu.
The Screening Models dialog box will open. The Screening scroll list displays the screening models currently defined for Ventura Separator.
- Select the model from the **Screening** scroll list, then select the **Delete** button.
This will remove the screening model from the Screening Model drop-down list box in the Separation Settings dialog box.
- Select the **OK** button to close the Screening Models dialog box.

To use a screening model:

- Select **Separation Settings** from the **Ventura Separator** menu.
The Separation Settings dialog box will open.
- Select the desired halftone model from the **Screening Model** drop-down list box.
- Select the desired halftone screen frequency in the **Line Screen** drop-down list box.
- Select the **OK** button to confirm your settings and to close the Separation Settings dialog box.

Ventura Separator will use the halftone screening information for the specified screening model and line screen.

Printing color separations of documents with continuous-tone images

This section tells you how to print color separations of Ventura Publisher pages that contain continuous-tone color images.



If you have installed a PostScript driver in Windows, you should verify that the driver is version 3.4 or later. This is particularly important if you use a typesetter for your output.

To verify the PostScript printer driver version currently installed in your Windows configuration:

- Open the Windows Control Panel by double-clicking on the **Control Panel** icon.
- Double-click on the **Printers** icon.
- Select a PostScript printer from the **Installed Printers** list.
- Select the **Configure** button.
The Printers - Configure dialog box will open.
- Select the **Setup** button.
The PostScript printer setup dialog box will open.
- Select the **About** button.
The PostScript printer driver About dialog box will open.
- Note the driver version number.

If the driver version number is prior to version 3.4, you should upgrade the PostScript printer driver. An upgraded PostScript printer driver is included in the Windows 3.0a driver pack obtainable directly from Microsoft, or you can download an upgraded version of the driver from the Ventura forum of CompuServe.

To print color separations of Ventura Publisher pages that contain continuous-tone color images:

- Load or scan images.

Use the procedure described in the Add Frame tool section in Chapter 3 of the *Ventura Publisher Windows Edition Reference Guide* to load images into frames on your pages. With Ventura Scan, you can also capture images from your desktop scanner directly into Ventura Publisher frames.

- Define picture settings.

Use the Picture Settings dialog box to define color correction settings for individual pictures. See page 3–2 for instructions on defining picture settings.

- Define separation settings.

Use the Separation Settings dialog box to define chapter-wide color correction and separation settings. See page 3–9 for instructions on defining separation settings.

The Separation Settings dialog box also lets you specify if you are printing separations of continuous-tone images, select a screening model, and define halftone screen frequency for use for output.

After you define separation settings for your document, you are ready to print separations on your imagesetter, or, if you are using a service bureau to output your separations, print to disk

- Use the **Screening Model** drop-down list box in the **Separation Settings** dialog box to select the Screening Model that you wish to use for your output.

To define a screening model, follow the instructions on page 3–22.

- Use the **Line Screen** drop-down list box in the **Separation Settings** dialog box to select the halftone screen frequency that you wish to use for your output.



When you select a screening model and line screen, the halftone screening information will override the halftone setup you have selected with Ventura Publisher. If you are using a standard screening model shipped with the program, you can select it with Ventura Publisher (refer to the Set Screening section in Chapter 8 of the *Ventura Publisher Windows*

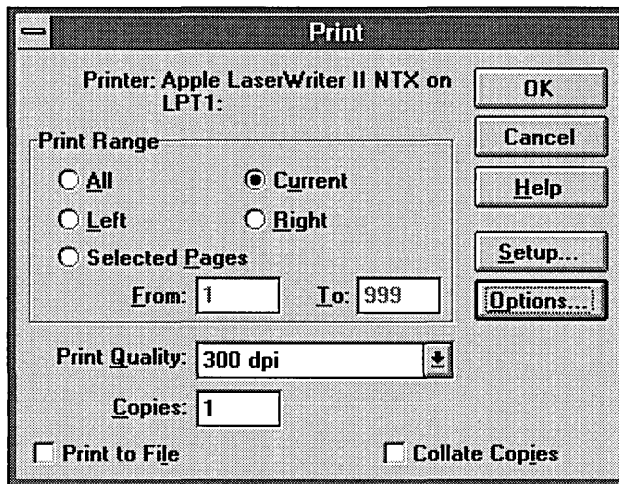
Edition Reference Guide.) If you wish to use a custom screening model that you have created in Ventura Separator, you must select it in Ventura Separator's Separation Settings dialog box.

Printing directly to an imagesetter

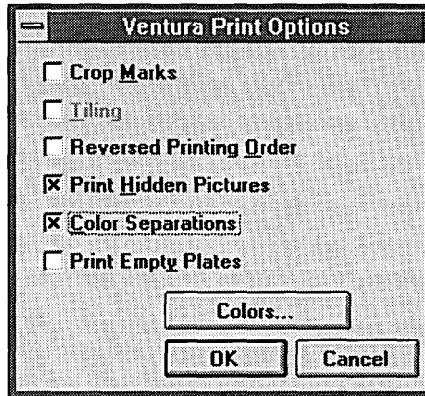
To print color separations to an imagesetter, you will follow a procedure very similar to that you use for printing to any other PostScript output device. Refer to the Print section in Chapter 5 of *Ventura Publisher Windows Edition Reference Guide*.

- Select **Print** from the Ventura Publisher **File** menu.

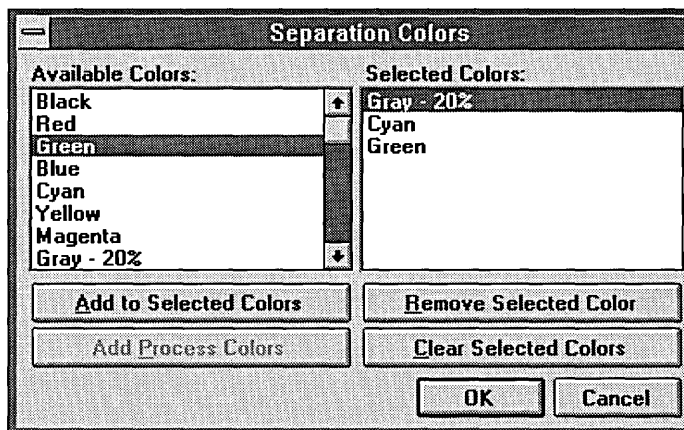
The Print dialog box will open.



- Select the **Setup** button. *The Print Setup dialog box will open.*
- Ensure an imagesetter is selected from the **Specific Printer** list in the Print Setup dialog box.
- Select the **OK** button to return to the Print dialog box.
- Select the **Options** button to display the Ventura Print Options dialog box.



- Select the **Color Separations** check box.
- Select the **Colors** button to define which color plates to print.
The Separation Colors dialog box will open.



This dialog box is used to select the colors that are to be included in the separation. Only those colors selected in this dialog box will be printed.

Available Colors The **Available Colors** list displays the color available in the currently loaded style sheet. These colors are defined using the Define Colors dialog box in Ventura Separator's Define Colors option, or Ventura Publisher's Define Colors option in the Paragraph menu.

Selected Colors The **Selected Colors** list displays the colors you have selected to be printed as separations.

Add to Selected Colors The **Add to Selected Colors** button adds the color currently selected in the **Available Colors** list to the **Selected Colors** list.



Colors added to the Selected Colors list that are not used in the chapter will produce a separation plate only when the Print Empty Plates check box in Ventura Publisher's Print Options dialog box is checked.

Add Process Colors The **Add Process Colors** button, when selected, will add process cyan, process magenta, process yellow, and process black colors to the **Selected Colors** list. These process colors differ from the cyan, magenta, yellow and black colors in the Available Colors list in that the process CMYK colors are used to separate the colors in the Available Colors list and color pictures in the chapter onto four process color plates.

Remove Selected Color The **Remove Selected Color** button removes the color currently selected in the Selected Colors list.

Clear Selected Colors The **Clear Selected Colors** button removes all colors from the Selected Colors list.

- When you have selected the colors to be printed as separations, select the **OK** button to return to the Ventura Print Options dialog box.
- Select the **Crop Marks** check box.
- Select the **OK** button to return to the Print dialog box.
- Select the **OK** button to begin printing.

Printing to a file

Ventura Publisher allows you to print all or part of your document to a file. This feature allows you to send your document to a service bureau for high-resolution output.

Printing to a file is very similar to printing directly to a printer. To print to a file, follow the instructions given above for defining separation settings, then follow the Printing to a file section in Chapter 5 of the *Ventura Publisher Windows Edition Reference Guide*. After you define separation settings, printing color separations of pages with continuous-tone color images is no different from printing any other pages.



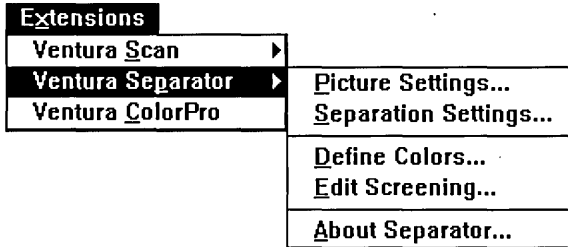
When you print color separations to a disk file, the file size can be very large. This is especially true when you are using continuous-tone image files. Color EPSF files will cause less of a size increase. Make sure that you are printing to a disk with enough free space to accommodate your print file. Do not print directly to a floppy disk, as floppy disks may not be able to hold all of the separation files, and writing to a floppy disk is considerably slower than writing files to a hard drive.

After printing your separations to disk, you can copy the print file to removable media and send it to your service bureau.

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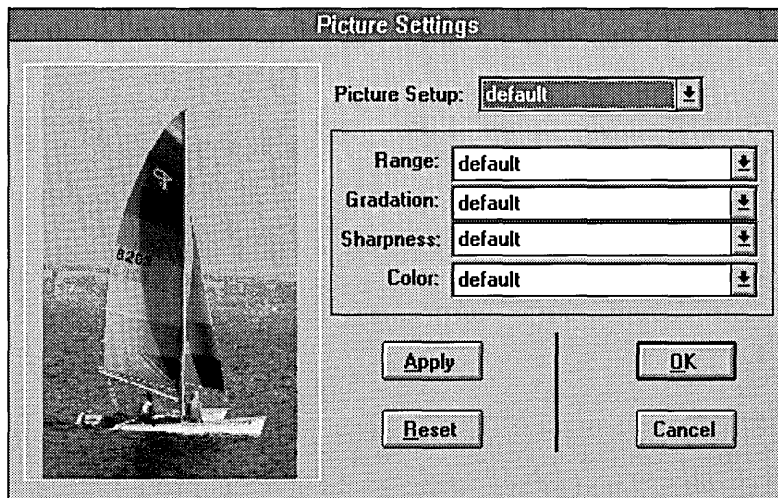
Ventura Separator Reference

Ventura Separator's functions are accessed via a drop-down menu under the Extensions menu item in the Ventura Publisher menu bar.



Picture Settings

Selecting Picture Settings from the Ventura Separator menu activates the Picture Settings dialog box, which displays the image in the active Ventura Publisher frame and lets you apply color correction parameters to it.



Picture Settings dialog box

Picture Preview Box The **Picture Preview Box** is the display area for the currently selected picture, which is displayed as a corrected image. When the **Apply** button is selected, the picture is updated to reflect the settings selected in the **Range**, **Gradation**, **Sharpness**, and **Color** controls. The **Reset** button re-displays the original uncorrected image.

Picture Setup The **Picture Setup** drop-down list box displays the separation setup that has been applied to the selected image. When you select a **Picture Setup** setting, the **Range**, **Gradation**, **Sharpness**, and **Color** controls will update to reflect the change. Of course, you may select any of the available settings for these controls. When you change a **Range**, **Gradation**, **Sharpness**, or **Color** selection, the **Picture Setup** name will change to “**Custom**.”

Range The **Range** drop-down list box lets you define the overall tonal range of the selected image. Tonal range is the difference between the highlight and shadow densities of the image. Typically, desktop scanners tend to reduce the tonal range of an image when they digitize it. The standard **Range** settings extend the tonal range to better reproduce the contrast of the original. **Range** settings are not cumulative—each setting operates on the original scan. These settings are:

The **default** setting uses the setting from the **Range** drop-down list box in the **Separation Settings** dialog box.

The **Normal** setting does not affect the tonal range of the image.

The **-Highlight** setting brightens the highlights without affecting the shadows.

The **+Shadow** setting darkens the shadows without affecting the highlights.

The **-Highlight +Shadow** setting brightens the highlights and darkens the shadows.

The **+Highlight, -Shadow** setting darkens the highlights and lightens the shadows.

Gradation The **Gradation** drop-down list box lets you define how image density is distributed between the highlight and shadow points established by the **Range** drop-down list box. Different **Gradation** settings are designed to

optimize the contrast and detail in different image density ranges. The settings include default, Normal, Lighten, Strong Lighten, Increase Contrast, Decrease Contrast, Open Quarter Tones, Open Midtones, and Open Shadows.

The **default** setting uses the setting from the Range drop-down list box in the Separation Settings dialog box.

The **Normal** setting makes no changes to the gradation. Use this setting if you are satisfied with the tonal gradation of the image.

The **Lighten** setting lightens all tones in the image. Use this setting for dark originals.

The **Strong Lighten** setting gives a more intense lightening to all tones in the image. Use this setting for very dark originals.

The **Increase Contrast** setting lightens light tones and darkens dark tones in the image. Use this setting for images that lack contrast.

The **Decrease Contrast** setting darkens light tones and lightens dark tones in the image. Use this setting for images that have excessive contrast.

The **Open Quarter Tones** setting lightens the light tones in the image. Use this setting to emphasize detail in light areas of your image.

The **Open Midtones** setting lightens the midtones in the image. Use this setting to enhance detail in the midtones.

The **Open Shadows** setting lightens the dark tones in the image. Use this setting to enhance shadow detail in parts of dark images.



Gradation settings are not cumulative; each setting is based on the original image.

Sharpness The **Sharpness** drop-down list box lets you apply an edge-enhancing process called unsharp masking to the selected image, to enhance the sharpness of your separations. The options are default, Normal, Strong Sharpen, Blur, Strong Blur and Smooth/Sharpen. Sharpness modifications are not displayed in the preview area.

The **default** setting uses the setting from the Range drop-down list box in the Separation Settings dialog box.

The **Normal** setting enhances edge definition and smoothness in the image.

The **Strong Sharpen** setting applies more intense edge definition enhancement.

The **Blur** setting increases image smoothness. The Blur option is useful for smoothing images that were scanned from a halftoned original.

The **Strong Blur** setting applies more intense smoothness enhancement.

The **Smooth/Sharpen** setting applies a smoothing pass to the image, then enhances edge definition. The effect is somewhat stronger than that caused by the Normal setting.

Color The **Color** drop-down list box lets you correct for the color contamination that is characteristic of different scanners. Color contamination is often especially evident in dark green and blue tones. The different settings activate custom color saturation enhancements for commonly used desktop scanners. Settings include **default**, **RGB Computer Graphics**, **No Color Correction**, **Spectre5000**, **Spectre35**, **HP ScanJet Iic**, **Howtek Reflective**, **Generic Reflective**, **Sharp Reflective**, **Nikon LS-3500**, **Howtek Transparency**, **Generic Transparency**, **Sharp Transparency**, **Microtek ScanMaker 600Z**, **LaCie**, **Imapro QCS 120**, **Imapro QCS 450i**, **Imapro QCS 600 Reflective**, **Imapro QCS 600 Transparency**, and **Array AS-1**.

The settings for different scanners represent a wide range of color correction settings. For example, the Generic Reflective setting applies a very strong color correction, compared with the Spectre5000 setting. If your scanner is not listed as an option in the Color drop-down list box, select a setting that approximates your scanner.

Use the RGB Computer Graphics setting for making color separations of computer-generated images.

The Generic Reflective and Generic Transparency settings compensate for typical reflective scanner and transparency scanner contamination, respectively.

As new scanners appear on the market and existing scanners are upgraded, upgrades of Ventura Separator will include new Color options.

- Apply** The **Apply** button lets you apply the currently selected settings to the image. The settings are applied and the result of the operations are displayed in the Picture preview box. The settings are not actually set for the image until you select OK.
- Reset** The **Reset** button resets the Picture preview box to display the original image.
- OK** The **OK** button saves all picture settings so that subsequent separation operations on this image are performed with the saved values.
- Cancel** The **Cancel** button cancels the current settings and closes the dialog box. The settings are reset to the values that they had when the Picture Settings dialog box was selected from the menu.

Separation Settings

Selecting Separation Settings from the Ventura Separator menu activates the Separation Settings dialog box, which lets you specify document-wide separation parameters.

The screenshot shows the 'Separation Settings' dialog box with the following settings:

- Document Setup: Custom
- Press/Paper: Sheetfed Coated
- Range: Normal
- Press Gain: None
- Gradation: Normal
- Gray Balance: SWOP
- Sharpness: Normal
- Color: No Color Correction
- Screening Model: default 2400
- Line Screen: 150



With the exception of the screening model and line screen, separation settings are applied to continuous-tone images in the document. They are not applied to imported EPSF graphics, items tagged with a color in Ventura Publisher, or images already separated by Ventura ColorPro.

Separation Settings dialog box

Document Setup The **Document Setup** drop-down list box lets you access and apply document settings to the document as a whole. You can access default settings or settings from a stand-alone application such as Ventura ColorPro.

Separation settings are saved in a file called PARAMS.PPT, in the Ventura directory. When settings are saved by Ventura ColorPro, they will automatically appear in Ventura Separator's Document Setup drop-down list box.

To copy settings from one computer to another, simply copy the PARAMS.PPT file to the computer where you wish to use the settings.

Press/Paper The **Press/Paper** drop-down list box allows you to select the printing press and paper stock to be used for the print job.

Each combination of paper and press can support a certain maximum density of printing ink. Maximum ink density is the combined total of the densities of cyan, magenta, yellow, and black ink printed in the darkest part of your image. Coated papers and offset presses hold higher maximum densities, while more porous papers and web presses hold lower maximum densities. To compensate for printing conditions, Ventura Separator reduces the density of cyan, magenta, and yellow ink in dark neutral areas of your image. This keeps the total ink density below the maximum value and enhances shadow detail.

Ventura Separator uses the following maximum ink density values for the seven combinations of paper and press:

Sheetfed Coated	345%
Sheetfed Uncoated	325%
Heatset Web Coated	310%
Heatset Web Uncoated	280%
Heatset Web Newsprint	260%
Open Web Uncoated	245%
Open Web Newsprint	240%

The Press/Paper settings in Ventura Separator are intended as guidelines for general categories of papers and presses. The actual requirements for your job may differ, so you should consult with your

printer to determine the maximum ink density for your job, then select a setting that gives you the correct maximum density.

Press Gain The **Press Gain** drop-down list box lets you compensate for the dot gain that often occurs on press, particularly when you are using uncoated paper stock. The options are **None**, **5**, **10**, **15**, and any custom settings that have been saved with Ventura ColorPro.

Gray Balance The **Gray Balance** drop-down list box lets you control the color balance of neutral areas of your images. Presently, the only option is **SWOP**, which conforms to the standard SWOP guidelines.

Range The **Range** drop-down list box lets you define the overall tonal range of the selected image. Tonal range is the difference between the highlight and shadow densities of the image. Typically, desktop scanners tend to reduce the tonal range of an image when they digitize it. The standard Range settings extend the tonal range to better reproduce the contrast of the original.

This is the default Range setting for all images in the document. To override this setting for a particular image, select the Picture Settings option from the Ventura Separator menu.

The **Normal** setting does not affect the tonal range of the image.

The **-Highlight** setting brightens the highlights without affecting the shadows.

The **+Shadow** setting darkens the shadows without affecting the highlights.

The **-Highlight, +Shadow** setting brightens the highlights and darkens the shadows.

The **+Highlight, -Shadow** setting darkens the highlights and lightens the shadows.

Gradation The **Gradation** drop-down list box lets you define how image density is distributed between the highlight and shadow points established by the Range menu. Different Gradation settings are designed to optimize the contrast and detail in different image density ranges. The settings include Normal, Lighten, Strong Lighten, Increase Contrast, Decrease Contrast, Open Quarter Tones, Open Midtones, and Open Shadows.

The **Normal** setting makes no changes to the gradation. Use this setting if you are satisfied with the tonal gradation of the images in your document.

The **Lighten** setting lightens all tones in the image. Use this setting for dark originals.

The **Strong Lighten** setting gives a more intense lightening to all tones in the image. Use this setting for very dark originals.

The **Increase Contrast** setting lightens light tones and darkens dark tones in the image. Use this setting for images that lack contrast.

The **Decrease Contrast** setting darkens light tones and lightens dark tones in the image. Use this setting for images that have excessive contrast.

The **Open Quarter Tones** setting lightens the light tones in the image. Use this setting to emphasize detail in light areas of your image.

The **Open Midtones** setting lightens the midtones in the image. Use this setting to enhance detail in the midtones.

The **Open Shadows** setting lightens the dark tones in the image. Use this setting to enhance shadow detail in parts of dark images.



Gradation settings are not cumulative; each setting is based on the original scan.

Sharpness The **Sharpness** drop-down list box lets you apply an edge-enhancing process called unsharp masking to images in the active document, to enhance the sharpness of your separations. The options are Normal, Strong Sharpen, Blur, Strong Blur, Smooth/Sharpen, and parameters saved from Ventura ColorPro.

The **Normal** setting enhances edge definition and smoothness in the image.

The **Strong Sharpen** setting applies more intense edge definition enhancement.

The **Blur** setting increases image smoothness. The Blur option is useful for smoothing images that were scanned from a halftoned original.

The **Strong Blur** setting applies more intense smoothness enhancement.

The **Smooth/Sharpen** setting applies a smoothing pass to the image, then enhances edge definition. The effect is somewhat stronger than that caused by the Normal setting.

Color The **Color** drop-down list box lets you correct for the color contamination that is characteristic of different scanners. Color contamination is often especially evident in dark green and blue tones. The different settings activate custom color saturation enhancements for commonly used desktop scanners. Settings include **RGB Computer Graphics**, **No Color Correction**, **Spectre5000**, **Spectre35**, **HP ScanJet IIc**, **Howtek Reflective**, **Generic Reflective**, **Sharp Reflective**, **Nikon LS-3500**, **Howtek Transparency**, **Generic Transparency**, **Sharp Transparency**, **Microtek ScanMaker 600Z**, **LaCie**, **Imapro QCS 120**, **Imapro QCS 450i**, **Imapro QCS 600 Reflective**, **Imapro QCS 600 Transparency**, and **Array AS-1**.

The settings for different scanners represent a wide range of color correction settings. For example, the Generic Reflective setting applies a very strong color correction, compared with the Spectre5000 setting. If your scanner is not listed as an option in the Color drop-down list box, select a setting that approximates your scanner.

Use the RGB Computer Graphics setting to separate computer-generated images.

The Generic Reflective and Generic Transparency settings compensate for typical reflective scanner and transparency scanner contamination, respectively.

As new scanners appear on the market and existing scanners are upgraded, maintenance upgrades of Ventura Separator will include new Color options.

Screening Model The **Screening Model** drop-down list box allows you to select the screening model to be used for output.

Line Screen The **Line Screen** drop-down list box lets you choose a Line Screen to use for printing the document.

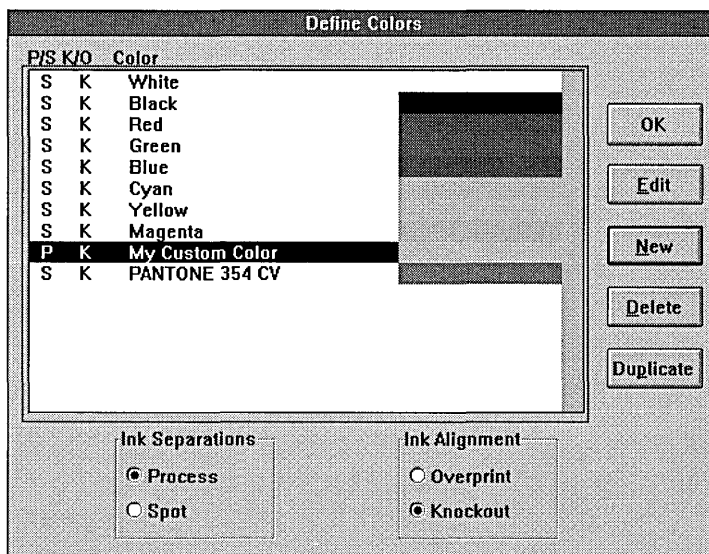
OK The **OK** button saves all document settings. Subsequent separation operations on any image in this document are performed with the saved

values unless different values have been saved for the image through the Picture Settings dialog box.

Cancel The **Cancel** button cancels all document settings operations and closes the dialog box.

Define Colors

Selecting Define Colors from the Ventura Separator menu activates the Define Colors dialog box, which lets you define and edit colors. You can define up to a total of 253 colors.



The first eight colors, White, Black, Red, Green, Blue, Cyan, Yellow, and Magenta, are not editable.

Define Colors dialog box

Process or Spot The **Process** and **Spot** radio buttons let you specify how the color should be color separated when you print. Spot colors are printed on separate plates, while Process colors are broken into their cyan, magenta, yellow, and black components and printed on the four process color plates.

Overprint or Knockout If you select **Overprint**, the selected color will be set to overprint other colors in the document. If you select **Knockout**, the selected color will knock out all other colors in the document.

Say, for example, that you want to print red type (100% magenta, 100% yellow), on a green background (100% cyan, 100% yellow), and you have specified red and green to be process colors (to be printed on the process color plates). If you set red to knockout, your final printed piece will look like the file on your monitor (red type on a green background). On the other hand, if you set red to overprint, the magenta and yellow in the red will overprint the background, resulting in dark brown type on a green background.

Color list The color list contains all the currently available colors. The list contains Spot/Process information, Overprint/Knockout information, the color name, and its color patch. When you select a color by double-clicking on it, its color patch is displayed vertically to the right of the other color patches, to allow for side-by-side comparison with other colors.



The color list includes colors defined for encapsulated PostScript format (EPSF) graphics placed in your Ventura Publisher document. When you import a color EPSF graphic file in Ventura Publisher, its color definitions are automatically added to the color list. This automatic color loading applies if the application that created the EPSF graphic conforms to Adobe Systems' PostScript standard. The PostScript standard for EPSF files requires that colors be defined by name and by color values in cyan, magenta, yellow, and black. If the color definitions from an EPSF file do not appear in the Ventura Publisher color list, contact the developer of your graphics application—they may be creating non-standard color definitions.

The EPSF colors are added only to the Define Colors dialog box that is accessed from Ventura Separator. If Define Colors is accessed via the Ventura Publisher Paragraph menu, EPSF colors will not appear in the list, nor will they appear in any other color list which Ventura Publisher

displays. In order to access these colors, this should be duplicated via Ventura Separator's Define Colors dialog box "Duplicate" button.

OK The **OK** button confirms the color changes and closes the dialog box.

Edit The **Edit** button lets you edit a highlighted color by opening another dialog box. If the color cannot be modified, the Edit button will be grayed-out.

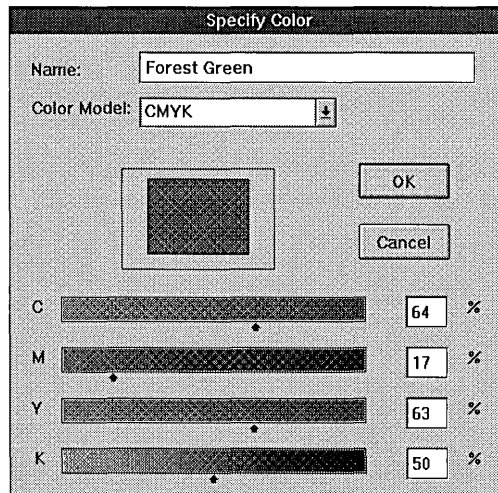
New The **New** button creates a new color entry and lets you edit the new color by opening another dialog box.

Delete The **Delete** button deletes the highlighted color from the color list. The first 8 colors in the list cannot be deleted. The delete button will be grayed when one of these colors is highlighted.

Duplicate The **Duplicate** button duplicates the highlighted color in the color list and allows you to make necessary changes by opening another dialog box. The new entry is placed at the end of the color list.

When you select New, Edit, or Duplicate in the Define Colors dialog box, the Specify Color dialog box opens, allowing you to specify color attributes.

Specify Color dialog box



Name The **Name** field lets you name the current color. This name is subsequently shown in the Define Colors dialog box list box.

Color Model The **Color Model** drop-down list box lets you select the color model that you wish to use to define the color.



You can switch between models. For example, you may select a PANTONE color by entering its name, then switch to CMYK to see its process color components.

The options are:

CMYK	- Cyan, Magenta, Yellow, Black
CMY	- Cyan, Magenta, Yellow
RGB	- Red, Green, Blue
HLS	- Hue, Lightness, Saturation
PANTONE [®] Solid	- PANTONE MATCHING SYSTEM [®] solid colors
PANTONE [®] Process	- PANTONE MATCHING SYSTEM [®] process colors

Ventura Separator lets you specify PANTONE colors from two different sets of colors. Select PANTONE[®] Solid to open a dialog box in which you can select a PANTONE color representing a pre-mixed spot color. Select PANTONE[®] Process to open a dialog box in which you can select from a collection of process color mixes chosen by PANTONE for their consistent color. See page 4–15.



After selecting a PANTONE[®] Solid or PANTONE[®] Process color, you can still use the controls in the Define Colors dialog box to specify whether the color will be printed as Spot (separated on its own plate) or Process (separated on the cyan, magenta, yellow, and black plates).

PANTONE colors cannot be edited, so the Edit button will be grayed out when you highlight a PANTONE color in the Define Colors dialog box.

When you select PANTONE[®] Solid or PANTONE[®] Process from the Color Model drop-down list box in the Specify Color dialog box, the Select PANTONE[®] Color dialog box will open. Depending on which type

PANTONE MATCHING SYSTEM is a registered trademark of Pantone, Inc.

of PANTONE color you selected, the color swatches in the Select PANTONE® Color dialog box will display PANTONE solid or process colors.

Color Box In an Edit or Duplicate operation, the original color is displayed in the left half of the box and the current color is displayed in the right half. The entire box displays the current color for a New operation.

Color Bars The color bar controls allow you to slide controls or enter numeric values to define color characteristics. The color bars correspond to the color model selected. Four bars are displayed when you are using the CMYK model; three bars are displayed for the other models. The bars correspond to:

CMYK: Cyan, Magenta, Yellow, and Black

CMY: Cyan, Magenta, and Yellow

RGB: Red, Green, and Blue

HLS: Hue, Lightness, and Saturation

To slide the controls, click and drag the arrow under the color bar.

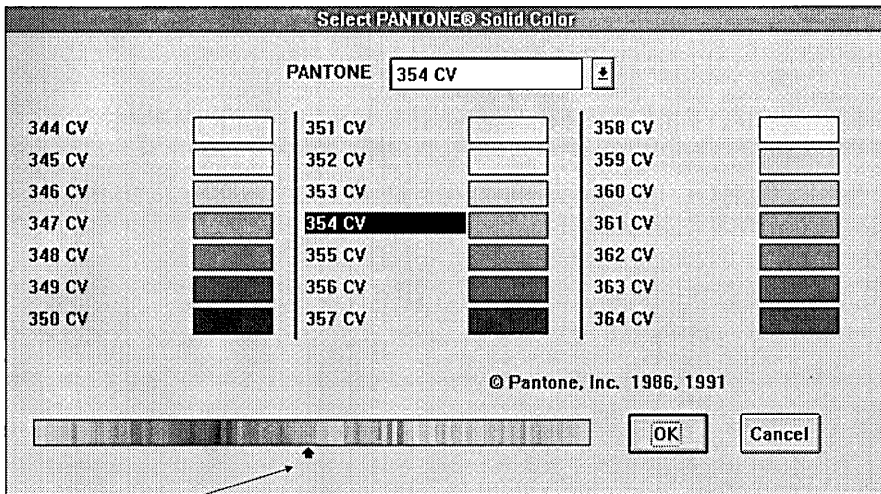
Color Component Value The color component value fields let you enter numeric values to define the properties of a color. The color component value fields are dependent upon the color model that you have chosen. For example, if you are using the CMYK color model, the color component value fields let you enter cyan, magenta, yellow, and black percentages of the selected color.

OK The **OK** button defines the color, and closes the dialog box.

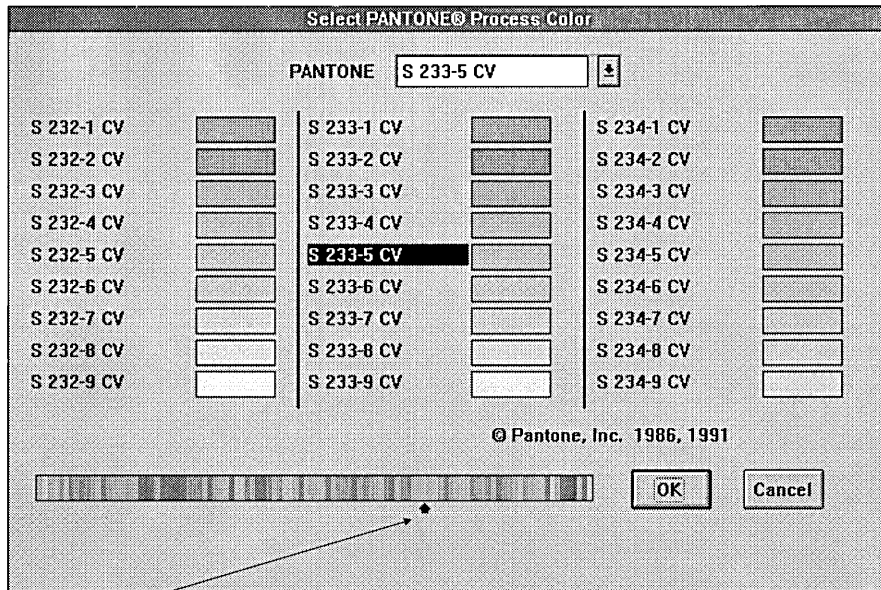
Cancel The **Cancel** button cancels the current color definition operations and closes the dialog box.

When you select PANTONE® Solid or PANTONE® Process from the Color Model drop-down list box in the Specify Color dialog box, the Select PANTONE® Solid Color or Select PANTONE® Process Color dialog box opens, depending which type of PANTONE color you selected.

Select PANTONE® Solid Color and Process Color dialog boxes



Scroll bar control



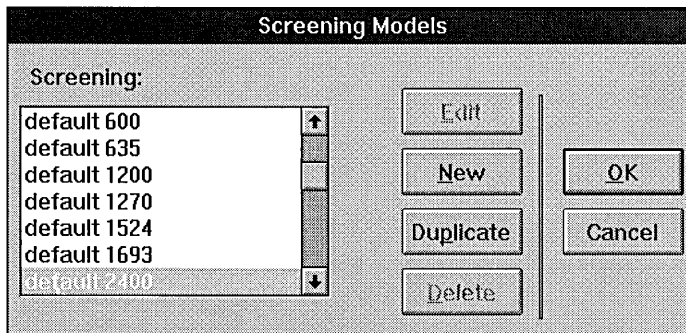
Scroll bar control

PANTONE The **PANTONE** drop-down list box reflects the name and number of the **PANTONE** color that is currently selected.

- PANTONE Color Swatches** The PANTONE Color Swatches display a screen representation of each PANTONE color. Each column of color swatches corresponds to a page in the PANTONE color formula guide. To select a PANTONE color, simply click on its PANTONE Color Swatch or its associated name.
- PANTONE Scroll Bar** The PANTONE scroll bar lets you quickly access different groups of PANTONE colors. To scroll through the groups of PANTONE colors, click and drag on the arrow under the scroll bar.
- OK** The **OK** button performs the PANTONE color selection operation and closes the dialog box.
- Cancel** The **Cancel** button cancels all PANTONE color selection operations and closes the dialog box.

Edit Screening

Selecting Edit Screening from the Ventura Separator menu opens the Screening Models dialog box, which displays the halftone screening models that have been defined and lets you create, edit, duplicate, or delete existing models.



Screening Models dialog box

The Screening Models dialog box displays valid screening models which may be selected. The default models may only be viewed; they cannot be deleted or modified. If one of these is highlighted, the Delete button is

grayed and the Edit button becomes a “View” button, where you can only cancel out of the subsequent Edit dialog box.

- Edit** The **Edit** button causes the selected list box screening model to be edited. This button opens a dialog box so that values may be modified.
- New** The **New** button creates a screening model. This button opens a dialog box so that values may be modified and a screening model name defined.
- Duplicate** The **Duplicate** button creates a copy of the highlighted screening model. This button opens a dialog box so that values may be modified and a new screening model name defined.
- Delete** The **Delete** button deletes the highlighted screening model.
- OK** The **OK** button updates the list of screening models with any modifications made to existing screening models and any additions of new models.
- Cancel** The **Cancel** button cancels the screening model definition operation and closes the dialog box.

When you select Edit, Duplicate, or New in the Screening Models dialog box, the Edit Screening dialog box opens, allowing you to specify screening attributes for the selected screening model.

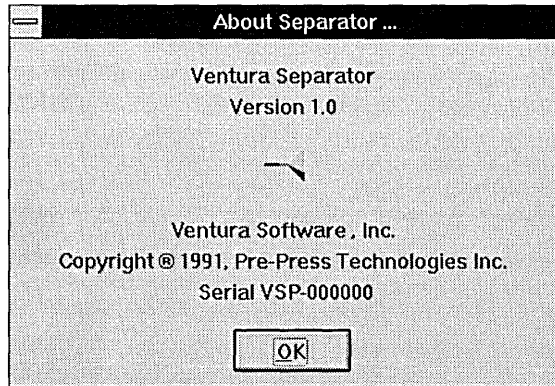
Edit Screening dialog box

	Angle:	Freq:	Dot Function:
C	75.0000	80.0000	Dot
M	105.0000	80.0000	Dot
Y	0.0000	80.0000	Dot
K	45.0000	80.0000	Dot

- Name** The **Name** field lets you define the name of the screening model. A screening model is tied to a particular resolution and should contain that resolution in its name.
- Line Screen** The **Line Screen** drop-down list box defines the minimum frequency boundary for the halftone screen information. When a Line Screen is entered, the frequencies for cyan, magenta, yellow, and black will default to that line screen value.
- Resolution** The **Resolution** drop-down list box lets you specify the resolution to be associated with the screening model. Resolution is available when the Edit Screening dialog box is accessed via the New button in the Screening Models dialog box.
- Angle** The **Angle** fields let you specify the screening angles (in degrees from horizontal) to be associated with the each plate of the screening model (the default models use the standard angles: cyan 75%, magenta 105%, yellow 0% (90%), and black 45%).
- Freq** The **Freq** fields let you specify the screening frequency (in halftone lines per inch) to be associated with each plate of the screening model.
- Dot Function** The **Dot Function** drop-down list boxes let you select the PostScript dot functions for each of the process colors. The options are **Dot**, **Line**, **Ellipse**, **Square**, and **Tri-Dot** (a PostScript triple-dot function).
- OK** The **OK** button associates the screening values with the screening model.
- Cancel** The **Cancel** button cancels the screening model definition operation and closes the dialog box.

About Separator

Selecting About from the Ventura Separator menu activates the About dialog box, shown below, which shows you the version and serial number of the Ventura Separator software that you are using.



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Appendix A

Problems

Problems associated with Ventura Separator are shown via error messages. Listed below are the most common error messages, together with suggested actions.

Ventura Separator Error Messages

Name required!

OK button selected before entering a name while adding or updating a screening model. Enter a name, then select OK.

Name already exists!

Duplicate name entered for a screening model. Enter a new name.

No item selected!

Edit, Duplicate or Delete button pressed in Screening Models dialog without a selection being made in listbox. Make a selection, then edit, duplicate, or delete.

Not a Legitimate DIB File!

Picture Settings dialog attempted to read image data that was not in device independent bitmap format. Convert the image to a Windows DIB file.

Not a 24-bit DIB File!

The bitmap data stored for the loaded image does not indicate that it is a 24-bit image. Image is therefore unsupported. Convert the image to a 24-bit DIB file.

Load Library failed!

The library containing the Define Colors and related dialogs could not be located. Reinstall the Ventura Separator software.

Unable to access image!

Picture Settings dialog box invoked without being passed information about the image. Select a Ventura frame that contains a valid image file (24-bit TIFF or PCX).

Frequency must be between 10 and 1000

OK pressed in Edit Screening dialog while one of the frequency settings violated upper or lower range. Change the frequency to a number between 10 and 1000.

Angle must be between 0 and 359.999

OK pressed in Edit Screening dialog while one of the angle settings violated upper or lower range. Make sure all the angle settings are between 0 and 359.999.

Bad EPSF header!

An attempt was made to load an EPSF file whose header is missing required information. Convert the EPSF file to a format that defines color names in the header (e.g., Adobe Illustrator).

Define Colors Error Messages

Value must not be greater than 100.

One of the color components on the Specify Color dialog was given a value exceeding the maximum allowable value (100). Adjust the color value to 100% or less.

Maximum number of colors reached.

Maximum number of custom colors has been defined (253). Delete unused colors.

This name is already in use. Please use a different name

You attempted to name a color with a name that has already been used. Enter a unique name for the color.

Name field required

You attempted to save a custom color without entering data in the name field. Enter a unique name for the color.

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Color balance. Colors are balanced when no objectionable color cast is present; e.g., when the picture does not appear too blue or too red.

Color theory. There are two main color models: additive and subtractive. In the additive model, red+green+blue = white, which is true when working with colored light. The subtractive model uses yellow+magenta+cyan = black (in theory), often referred to as YMC.

Drop-down list box. A single-line dialog box that opens to display a list of choices.

CCD. Charge Coupled Device. The photosensitive elements arranged in arrays in most desktop scanners.

CMYK. Cyan, magenta, yellow, and black. The colors used for process printing.

Continuous-tone. An image that has a broad range of densities that blend evenly from one shade to the next. Also called a contone.

Contrast. The tonal difference between the highlights, mid-tones and shadows in an image.

Density. The degree of darkness of a continuous-tone image.

Digitize. To convert images into a form that can be loaded, manipulated, and saved by a computer.

DPI. Dots per inch. Usually a measure of resolution for imagesetters, laser printers and scanners.

Gradation. The distribution of image density between highlight and shadow.

Halftone. A conversion of an image to a group of variously sized dots, used for reproduction of continuous-tone images. Large dots appear in the shadows and small dots in the highlights.

Highlight. The lightest parts of a continuous-tone image.

Mid-tone. The tones midway between highlights and shadows of a continuous-tone image.

RGB. Red, Green, Blue. The colors used for digital image scanning and on-screen representation.

Saturation. A color's relative strength and departure from gray.

Shadow. The darkest parts of a continuous-tone image.

Tagged Image File Format (TIFF). A strict bitmapped format from Microsoft and Aldus Corporation that can be placed into desktop publishing or other graphics applications that support this file format.

VIFF. Virtual Image File Format.

A

- About (Separator) dialog box, 4-19
- About Separator, 4-19 - 4-20
- Adobe Systems PostScript standard, 4-11
- Angle, Edit Screening, 4-18
- Apply, Picture Settings, 3-7, 4-5

B

- Blur, Sharpness, 3-6, 3-13, 4-4, 4-8

C

- Cancel
 - Edit Screening, 4-18
 - PANTONE, 4-16
 - Picture Settings, 4-5
 - Screening Models, 4-17
 - Separation Settings, 4-10
 - Specify Color, 4-14
- CCD, 3-13
- CMY, 3-17, 4-13
- CMY, Color Model, 4-13
- CMYK, 3-17, 4-13
- CMYK, Color Model, 4-13
- Color
 - Default, 3-7, 4-4
 - Defining new, 3-19
 - Deleting, 3-22
 - Edit existing, 3-21
- Color Bars, Specify Color, 4-14
- Color Box, Specify Color, 4-14
- Color card, 24-bit, 2-1
- Color Component Value, Specify Color, 4-14
- Color list, Define Colors, 4-11
- Color Model
 - CMY, 4-13
 - CMYK, 4-13
 - HLS, 4-13
 - PANTONE Process, 4-13
 - PANTONE Solid, 4-13

- RGB, 4-13
- Color Model, Specify Color, 4-13
- Color, Picture Settings, 3-6, 4-4
- Color, Separation Settings, 3-13, 4-9
- Colors, using, 3-15 - 3-21
- Conventions, 1-3 - 1-4
- Create, Screening Models, 3-23
- Custom settings, 3-3

D

- Decrease Contrast, Gradation, 3-5, 3-12, 4-3, 4-8
- Default
 - Color, 3-7, 4-4
 - Gradation, 3-4, 4-3
 - Range, 3-3, 4-2
 - Sharpness, 3-6, 4-3
- Define Colors, 3-15, 4-10 - 4-14
- Define Colors dialog box, 3-15, 4-10 - 4-11
 - Color list, 4-11
 - Delete, 3-16, 4-12
 - Duplicate, 3-16, 4-12
 - Edit, 3-16, 4-12
 - New, 3-16, 4-12
 - OK, 3-16, 4-12
 - Overprint or Knockout, 3-17, 4-11
 - Process or Spot, 3-17, 4-11
- Defining Halftone Screening, 3-22 - 3-25
- Defining Picture Settings, 3-2 - 3-8
- Defining Separation Settings, 3-9 - 3-14
- Delete
 - Define Colors, 3-16, 4-12
 - Screening Models, 3-25, 4-17
- Document Setup, Separation Settings, 3-9, 4-6
- DOS 3.3, 2-1
- Dot Function, 3-24
- Dot Function, Edit Screening, 4-18
- Duplicate
 - Define Colors, 3-16, 4-12
 - Screening Models, 3-23, 4-17

E

Edit

- Define Colors, 3-16, 4-12
- Screening Models, 3-23, 4-17
- Edit Screening, 4-16 - 4-18
- Edit Screening dialog box, 3-24, 4-17
 - Angle, 4-18
 - Cancel, 4-18
 - Dot Function, 4-18
 - Freq, 4-18
 - Line Screen, 4-18
 - Name, 4-18
 - OK, 4-18
 - Resolution, 4-18
- EPSF files, 4-11
- Error messages, A-1
- Extensions menu, 3-1, 4-1

F

- File, Printing to, 3-30
- Freq, Edit Screening, 4-18

G

Gradation

- Decrease Contrast, 3-5, 3-12, 4-3, 4-8
- Default, 3-4, 4-3
- Increase Contrast, 3-5, 3-12, 4-3, 4-8
- Lighten, 3-5, 3-12, 4-3, 4-8
- Normal, 3-5, 3-12, 4-3, 4-8
- Open Midtones, 3-5, 3-12, 4-3, 4-8
- Open Quarter Tones, 3-5, 3-12, 4-3, 4-8
- Open Shadows, 3-5, 3-12, 4-3, 4-8
- Strong Lighten, 3-5, 3-12, 4-3, 4-8
- Gradation, Picture Settings, 3-4, 4-2
- Gradation, Separation Settings, 3-12, 4-7
- Gray Balance, Separation Settings, 3-11, 4-7
- Gray Balance, SWOP, 3-11

H

- Halftone screening, 3-22 - 3-25
- Heatset Web Coated, 3-10, 4-6
- Heatset Web Newsprint, 3-10, 4-6
- Heatset Web Uncoated, 3-10, 4-6
- Highlight, Range, 3-4, 3-11, 4-2, 4-7

- Highlight, +Shadow, Range, 3-4, 3-11, 4-2, 4-7
- +Highlight, -Shadow, Range, 3-4, 3-12, 4-2, 4-7
- HLS, 3-17, 4-13
- HLS, Color Model, 4-13

I

- Imagesetter, printing, 3-28
- Increase Contrast, Gradation, 3-5, 3-12, 4-3, 4-8
- Installation, 2-1
- Installing Ventura Separator, 2-1
- Introduction, 1-1 - 1-4

K

- Knockout, 3-17, 4-11

L

- Lighten, Gradation, 3-5, 3-12, 4-3, 4-8
- Line Screen
 - Edit Screening, 4-18
 - Separation Settings, 3-14, 4-9

M

- Memory (used by Ventura Separator), 2-1
- Menu, 3-1

N

Name

- Edit Screening, 4-18
- Screening Models, 3-25
- Specify Color, 4-13

New

- Define Colors, 3-16, 4-12
- Screening Models, 4-17

Normal

- Gradation, 3-5, 3-12, 4-3, 4-8
- Range, 3-4, 3-11, 4-2, 4-7
- Sharpness, 3-6, 3-13, 4-4, 4-8

O**OK**

- Define Colors, 3-16, 4-12
- Edit Screening, 4-18
- PANTONE, 4-16
- Picture Settings, 3-7, 4-5
- Screening Models, 4-17
- Separation Settings, 4-9
- Specify Color, 4-14
- Open Midtones, Gradation, 3-5, 3-12, 4-3, 4-8
- Open Quarter Tones, Gradation, 3-5, 3-12, 4-3, 4-8
- Open Shadows, Gradation, 3-5, 3-12, 4-3, 4-8
- Open Web Newsprint, 3-10, 4-6
- Open Web Uncoated, 3-10, 4-6
- Overprint, 3-17, 4-11
- Overprint or Knockout, 3-17, 4-11

P

- PANTONE colors, 3-19
- PANTONE dialog boxes
 - Cancel, 4-16
 - OK, 4-16
 - PANTONE Color Swatches, 4-16
 - PANTONE name/number, 4-15
 - PANTONE Scroll Bar, 4-16
- PANTONE Process, 3-17, 3-19, 4-13
- PANTONE Process, Color Model, 4-13
- PANTONE Solid, 3-17, 3-19, 4-13
- PANTONE Solid, Color Model, 4-13
- Paper/Press
 - See Press/Paper
- Params.ppt file, 3-9 - 3-10, 4-6
- Picture Preview Box, 4-2
- Picture Settings, 3-2 - 3-8, 4-1 - 4-4
 - Color, options, 3-7
 - Custom, 3-3
 - Gradation, options, 3-4
 - Range, options, 3-3
 - Sharpness, options, 3-6
- Picture Settings dialog box, 3-2, 4-1 - 4-2
 - Apply, 3-7, 4-5
 - Cancel, 3-8, 4-5
 - Color, 3-6, 4-4
 - Gradation, 3-4, 4-2
 - OK, 3-7, 4-5
 - Picture Preview Box, 4-2
 - Picture Setup, 3-3, 4-2
 - Preview area, 3-3
 - Range, 4-2
 - Range, tonal, 3-3
 - Reset, 3-7, 4-5
 - Sharpness, 3-5, 4-3
 - Picture Settings, Color, 3-6, 4-4
 - Options, 3-7, 4-4
 - Picture Settings, Gradation
 - Decrease Contrast, 3-5, 4-3
 - Default, 3-4, 4-3
 - Increase Contrast, 3-5, 4-3
 - Lighten, 3-5, 4-3
 - Normal, 3-5, 4-3
 - Open Midtones, 3-5, 4-3
 - Open Quarter Tones, 3-5, 4-3
 - Open Shadows, 3-5, 4-3
 - Strong Lighten, 3-5, 4-3
 - Picture Settings, Range
 - +Highlight, -Shadow, 3-4, 4-2
 - +Shadow, 3-4, 4-2
 - Highlight, 3-4, 4-2
 - Highlight, +Shadow, 3-4, 4-2
 - Default, 3-3, 4-2
 - Normal, 3-4, 4-2
 - Picture Settings, Sharpness
 - Blur, 3-6, 4-4
 - Default, 3-6, 4-3
 - Normal, 3-6, 4-4
 - Smooth/Sharpen, 3-6, 4-4
 - Strong Blur, 3-6, 4-4
 - Strong Sharpen, 3-6, 4-4
 - Picture Setup, Picture Settings, 3-3, 4-2
- PostScript driver
 - Upgrade, 3-26
 - Version 3.4, 3-26
 - Version verification, 3-26
- Prerequisites, 1-2
- Press Gain
 - Options, 3-11
- Press Gain, Separation Settings, 3-11, 4-7
- Press/Paper
 - Heatset Web Coated, 3-10, 4-6
 - Heatset Web Newsprint, 3-10, 4-6
 - Heatset Web Uncoated, 3-10, 4-6
 - Open Web Newsprint, 3-10, 4-6
 - Open Web Uncoated, 3-10, 4-6
 - Sheetfed Coated, 3-10, 4-6
 - Sheetfed Uncoated, 3-10, 4-6
- Press/Paper, Separation Settings, 3-10, 4-6

Preview area, Picture Settings, 3-3
 Print dialog box (Ventura Publisher), 3-28
 Print Options dialog box (Ventura Publisher), 3-29
 Printing
 Color separations, 3-26 - 3-32
 Directly to an imagesetter, 3-28
 Output to service bureau, 3-31
 To a file, 3-30
 Problems, A-1
 Process color, 3-17 - 3-19, 4-11, 4-13, 4-15
 Process or Spot, 3-17

R

RAM, 2-1
 Range
 +Highlight, -Shadow, 3-4, 3-12, 4-2, 4-7
 +Shadow, 3-4, 3-11, 4-2, 4-7
 -Highlight, 3-4, 3-11, 4-2, 4-7
 -Highlight, +Shadow, 3-11, 4-2, 4-7
 Default, 3-3, 4-2
 Normal, 3-4, 3-11, 4-2, 4-7
 Range, Picture Settings, 3-3, 4-2
 Range, Separation Settings, 3-11, 4-7
 Reset, Picture Settings, 3-7, 4-5
 Resolution, Edit Screening, 4-18
 RGB, 3-17, 4-13
 RGB, Color Model, 4-13

S

Screening Model, 4-9
 Create, 3-23
 Delete, 3-25
 Duplicate, 3-23
 Edit, 3-23
 Use, 3-25
 Screening Model, Separation Settings, 3-14
 Screening models, 3-22
 Create, edit, duplicate, 3-23
 Screening Models dialog box, 3-23, 4-16
 Cancel, 4-17
 Delete, 4-17
 Duplicate, 4-17
 Edit, 4-17
 New, 4-17
 OK, 4-17
 Select PANTONE Color dialog box, 4-15

Select, Defined, 1-3
 Separation Colors dialog box (Ventura Publisher), 3-29
 Add Process Colors, 3-30
 Add to Selected Colors, 3-30
 Available colors, 3-29
 Clear Selected Colors, 3-30
 Remove Selected Colors, 3-30
 Selected colors, 3-29
 Separation Settings, 3-9 - 3-14, 4-5 - 4-9
 Color, options, 3-13
 Gradation, options, 3-12
 Range, options, 3-11
 Sharpness, options, 3-13
 Separation Settings dialog box, 3-9, 4-5 - 4-6
 Cancel, 4-10
 Color, 3-13, 4-9
 Document Setup, 3-9, 4-6
 Gradation, 3-12, 4-7
 Gray Balance, 3-11, 4-7
 Line Screen, 3-14, 4-9
 OK, 4-9
 Press Gain, 3-11, 4-7
 Press/Paper, 3-10, 4-6
 Range, 3-11, 4-7
 Screening Model, 3-14, 4-9
 Sharpness, 3-13, 4-8
 Separation Settings, Color, 3-13, 4-9
 Options, 3-13, 4-9
 Separation Settings, Gradation
 Decrease Contrast, 3-12, 4-8
 Increase Contrast, 3-12, 4-8
 Lighten, 3-12, 4-8
 Normal, 3-12, 4-8
 Open Midtones, 3-12, 4-8
 Open Quarter Tones, 3-12, 4-8
 Open Shadows, 3-12, 4-8
 Strong Lighten, 3-12, 4-8
 Separation Settings, Range
 +Highlight, -Shadow, 3-12, 4-7
 +Shadow, 3-11, 4-7
 -Highlight, 3-11, 4-7
 -Highlight, +Shadow, 3-11, 4-7
 Normal, 3-11, 4-7
 Separation Settings, Sharpness
 Blur, 3-13, 4-8
 Normal, 3-13, 4-8
 Smooth/Sharpen, 3-13, 4-9
 Strong Blur, 3-13, 4-9
 Strong Sharpen, 3-13, 4-8

Service bureau, 3-31
+Shadow, Range, 3-4, 3-11, 4-2, 4-7
Sharpness
 Blur, 3-6, 3-13, 4-4, 4-8
 Default, 3-6, 4-3
 Normal, 3-6, 3-13, 4-4, 4-8
 Picture Settings, 3-5, 4-3
 Separation Settings, 3-13, 4-8
 Smooth/Sharpen, 3-6, 3-13, 4-4, 4-9
 Strong Blur, 3-6, 3-13, 4-4, 4-9
 Strong Sharpen, 3-6, 3-13, 4-4, 4-8
Sheetfed Coated, 3-10, 4-6
Sheetfed Uncoated, 3-10
Smooth/Sharpen, Sharpness, 3-6, 3-13, 4-4, 4-9
Specify Color dialog box, 3-17 - 3-18, 4-12
 Cancel, 4-14
 CMY, 3-17
 CMYK, 3-17
 Color Bars, 4-14
 Color Box, 4-14
 Color Component Value, 4-14
 Color Model, 4-13
 HLS, 3-17
 Name, 4-13
 OK, 4-14
 PANTONE, 3-17
 RGB, 3-17
Specify PANTONE Solid Color dialog box, 4-15

Spot color, 3-17 - 3-19, 4-11, 4-13, 4-15
Strong Blur, Sharpness, 3-6, 3-13, 4-4, 4-9
Strong Lighten, Gradation, 3-5, 3-12, 4-3, 4-8
Strong Sharpen, Sharpness, 3-6, 3-13, 4-4, 4-8
SWOP, Gray Balance, 3-11
System requirements, 2-1 - 2-2

T

Tonal range, 3-3
Tonal Range, Separation Settings, 3-11
Typographical Conventions, 1-3 - 1-4

V

Ventura ColorPro, 1-1
Ventura Print Options dialog box, 3-29
Ventura Scan, 1-1
Ventura Separator menu, 3-1, 4-1
Ventura Separator system requirements, 2-1 -
 2-2

W

Windows 3.0, 2-1

**Ventura Software Inc.
15175 Innovation Drive
San Diego, CA 92128**

Part No. 610S55123