

TRUESPECTRA



Photo > GRAPHICS™

Ready for
S/2 WARP



User's Guide

Serial Number

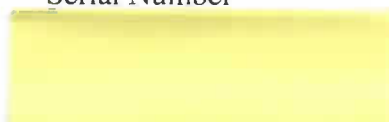


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Introduction

TrueSpectra Photo>Graphics is the ideal application for quickly creating, manipulating and editing *high quality* graphics. Truly object-oriented, it allows you to combine vector drawings, image processing techniques and font rendering capabilities in a seamless, resolution-independent environment.

Photo>Graphics supports most of the popular image file formats that are typically found on CD-ROMs, in image encyclopedias and on the Internet. It also supports many traditional draw capabilities which are integrated uniquely with advanced image processing techniques.

With Photo>Graphics, you can easily enhance and combine an unlimited number of digital images, draw and text objects in a given project by using the editing and special effect Tools available to you. You can use these Tools to change the color of objects, insert text into photographs, duplicate or crop an image. You can enhance the contrast and brightness of an image, improve sharpness and zoom in to highlight the most minute detail or zoom out to view the entire workspace. Photo>Graphics gives you full power and flexibility to work with a simple photograph to a complex collage or advertising flier.



Photo>Graphics uses *ColorWave*, a sophisticated object-based render engine delivering increased application speed, design flexibility and unparalleled quality output. Changes and adjustments in any design are automatically and quickly updated in the background by ColorWave, giving you complete flexibility to compare different design scenarios. ColorWave begins to update images instantly as a background task so there is no waiting with every small change to an object!

As you work with Photo>Graphics, you are actually creating a series of interacting *resolution independent* "objects" known collectively as a "Project". A Project is displayed or "rendered" by the **TrueSpectra ColorWave Level 2.0** render engine included with this version of Photo>Graphics. Since Photo>Graphics is multi-threaded, you can see the rendered result of any change you make to a project within moments of making such a change. For example, when dragging an object, you can pause in the middle of your drag and see the ColorWave render thread update your screen. You don't have to complete a 'drag and drop' action to view changes.

The true object-oriented nature of Photo>Graphics means that original bitmaps are never compromised nor permanently altered in any way. An effect can be easily added to or removed from a bitmap, a collage of bitmaps, text or draw items without destroying any underlying pixels. Photo>Graphics truly provides top level functionality!



If you wish to save an object or compound object, ('ColorWave Clipart'), the '.ORC' (Object Archive for ColorWave applications) file extension must be chosen. When you are ready to save an entire Project, you may do so in the TrueSpectra ColorWave '.GDO' (General ColorWave Object-Oriented Document) file format. This format lets you retrieve your files later for printing, distribution on the Internet or for further enhancements. You can also save your project in one of many universal graphic file formats by using the Save Rendered feature supported by Photo>Graphics.

In both cases, all products with licensed ColorWave 2.0 capabilities will be able to load and render your file. Note, however, that some ColorWave 2.0 applications may not be able to edit all types of objects in your Project as they may not have as extensive a user interface as is available in Photo>Graphics.

Digital Images

What is a digital image? A digital image typically starts as a photograph, a painting or a sketch. These images are then "scanned" into an electronic format and saved digitally as a series of square dots of color, known as pixels. While CD-ROM image encyclopedias and the Internet are a popular source of digital images, an image can also be created from scratch and merged with electronic draw, text or other digital images using powerful computer software such as Photo>Graphics. The final creation can then be available for output or electronic distribution for the enjoyment of many.

Conventional photographic film can be stored digitally on CD-ROM through specialized scanning services. Slides and photographs can also be converted to a digital format through these service outlets. Your local camera store, photo processor or print shop should be able to provide this service or help you locate a scanning service close to you.

If you are using a digital camera, the "photographic" images taken are stored in a digital format in the camera. Later, you can download the digital images to your computer for viewing and editing.

About this User Guide

This User Guide is designed to be a stand alone information and reference document for Photo>Graphics. This Guide includes a detailed description of all of the features and terminology used in Photo>Graphics and will give you an understanding of our unique object-oriented approach to graphic design. Together with the Tutorial Guide, they contain all of the information you will need to effectively create both entertaining and professional looking graphics and images using TrueSpectra Photo>Graphics.

The Tutorial Guide included in your package of Photo>Graphics can be used as a learning tool and as a reference piece to inspire creative designs.

TrueSpectra Photo>Graphics is an easy application program to learn once you understand a few key concepts. Depending on your level of experience with graphic design and production tools, the following is a suggested road map to follow:

<u>Level of Expertise</u>	<u>Suggested Steps to Take</u>
Novice	Read the User's Guide; Complete the Tutorial Guide.
Intermediate	Review the User's Guide and Tutorial Guide; Use On-Line Help when needed.
Advanced	Use On-Line Help when needed.

Your Photo>Graphics Package

Your Photo>Graphics package includes:

- A CD-ROM containing the Photo>Graphics program. This CD-ROM also includes a number of scanned images, sample projects and the files referred to throughout the Tutorial Guide;
- The Photo>Graphics User's Guide;
- A Customer Support program policy notice;
- The Photo>Graphics Tutorial Guide;
- A Customer Support and Upgrade Registration Card, and
- Several adhesive serial number stickers to apply to your User Guide, CD-ROM and the Customer Support Registration Card.

System Requirements

The minimum system requirements for running Photo>Graphics include: A 486DX or better computer, the OS/2® Warp operating system, 8 MB RAM, a hard disk drive with 40 MB of free space (largely for swap space when working with large digital images), a VGA display monitor, a keyboard and a mouse.

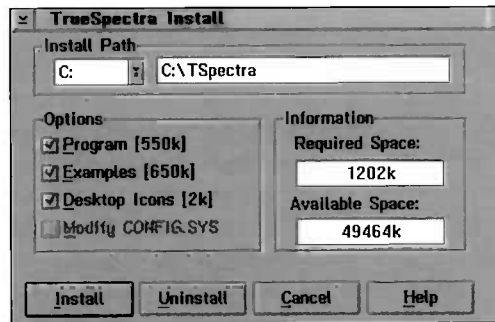
If you expect to be working with complex compositions or if you would like to view your artwork in true color, the following is recommended: a Pentium Processor, OS/2® Warp, 16MB RAM and a monitor and display adapter that shows 64k colors or more, capable of 800 x 600 screen resolution. If your system does not display at least 64K colors, Photo>Graphics will attempt to match colors appropriately. If this color matching is necessary, you may notice some performance degradation. To improve performance, configure OS/2® Warp to show the maximum number of colors possible, even if it means reducing screen resolution.



Installing Photo>Graphics

The following steps will guide you through the installation of Photo>Graphics on your PC:

1. Insert the Photo>Graphics CD into the CD-ROM drive.
2. Double click on the OS/2 System Icon on the OS/2 desktop.
3. Double click on the Drives Icon.
4. Double click on your CD-ROM Drive Icon.
5. From the list of files that are displayed, double click on 'INSTALL.EXE'.
6. A License Agreement will be displayed. Once you have read the Agreement, select the "I Agree" button to run the install program or the "I Don't Agree" button to abort.
7. You will be prompted to set your install preferences. You must install at least the Program and Icon files in order to run Photo>Graphics.
8. Select "Install" to install the program.



If for any reason you wish to stop the installation of Photo>Graphics, select the "Abort" button.

Once the installation of Photo>Graphics is completed successfully, an icon will be placed on the OS/2 desktop. This icon is used to launch the Photo>Graphics application.

Customer Support

Details of the TrueSpectra Customer Support program are enclosed with this product on a separate insert. To receive Customer Support for your copy of TrueSpectra Photo>Graphics, you must first register your copy by mailing your completed registration card to TrueSpectra Inc. Please be sure to include on your registration card one of the serial number stickers found in your package. Otherwise, you may use an electronic form found on our web site at <http://www.truespectra.com> to submit your registration.

By registering your copy of Photo>Graphics, we will also be able to provide you with future announcements about availability of program upgrades as well as new products and special offers from TrueSpectra Inc. If you have any questions about using Photo>Graphics, please refer to this User's Guide or the on-line help for assistance.

If, after searching the documentation for answers to your questions, you still have questions about Photo>Graphics, you can contact our Customer Support Group by:

E-Mail:	support@truespectra.com
Fax:	(416) 224-0309
Telephone:	(416) 224-2787

When contacting us with a question about Photo>Graphics, please document the trouble you are having and include a list of remedies you have already tried. Please also include:

- Your TrueSpectra Photo>Graphics registration number;
- Your name;
- Address;
- Phone number;
- Fax number;
- E-mail address;
- Details about your system configuration, and
- Any special features you have.

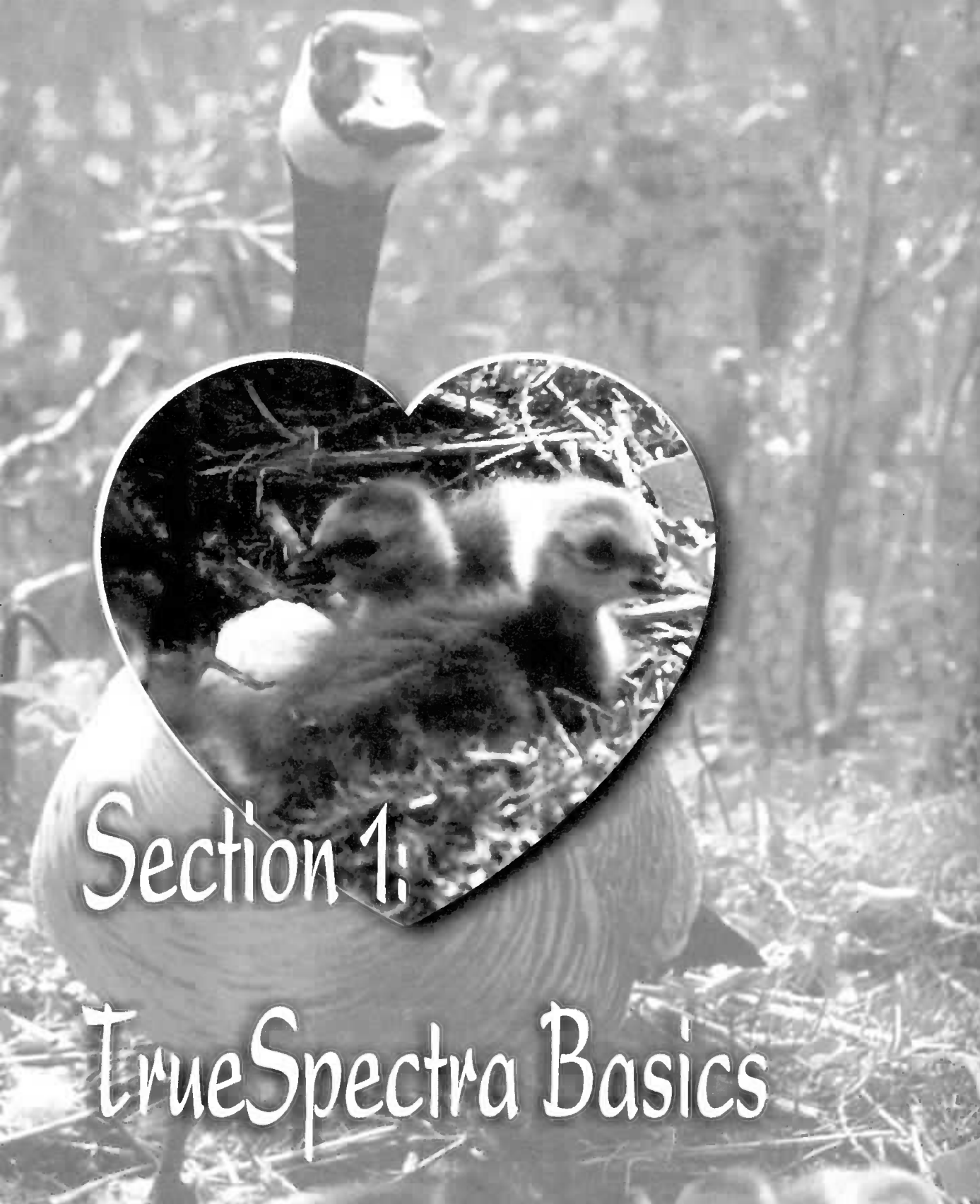
If you telephone our Customer Support Group, please have Photo>Graphics up and running on your system (if possible).

We appreciate the interest you have taken in Photo>Graphics and welcome any written comments or suggestions regarding our product. Please mail your comments or suggestions to:

TrueSpectra Inc.
User Satisfaction Department
4950 Yonge Street
Suite 802
North York, Ontario
Canada M2N 6K1

or e-mail us at: **comments@truespectra.com**.





Section 1:

TrueSpectra Basics

This Section will teach you some of the basic skills needed to get around the Photo>Graphics Workspace and the terminology that you will encounter when using this product.

It is recommended that you have some working knowledge of OS/2, including the way the mouse is used to open and move files, as well as other operations such as minimizing and maximizing applications.

First Things First: Mice and Menus

Using the Mouse

In Photo>Graphics, both the Left and the Right Mouse buttons are used frequently to save time. Mastering the use of the mouse is important at the outset to save you considerable effort when laying out projects. The following table gives a quick run-down of what each mouse button is responsible for. You will become acquainted with these items shortly.

Left Mouse Button

- Create Objects
- Select Objects
- Resize Objects
- Mirror Objects

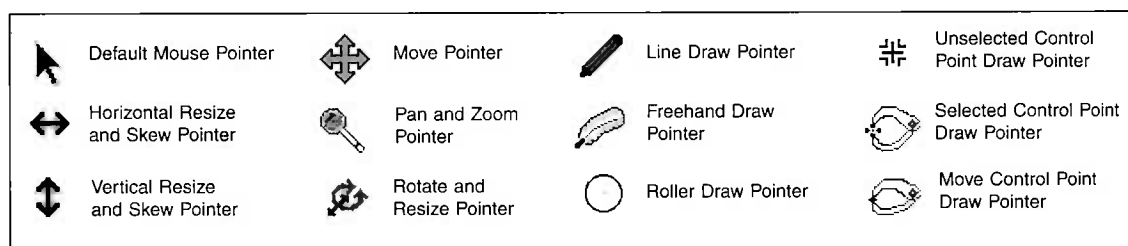
Right Mouse Button

- Display the Context Menu
- Rotate Objects
- Move Objects
- Skew Objects

The **Left Mouse button** is used to select objects so that you can perform actions. By placing the mouse pointer above an object and clicking once with the Left Mouse button, the object becomes "active". *You will know when an object is active by the marquee outline around it.* To select an object under layers of other objects, you can keep clicking until the one you want is active. If you want to draw out a rectangular Region, simply press and hold the Left Mouse button and move the mouse until you have the rectangle you want, then release the mouse button.

Shortcuts for resizing and flipping objects are accomplished using the Left Mouse button. To perform these actions you need to move the pointer to a marquee edge of a selected object. In these cases, the pointer will have a different appearance depending on where it is placed around the object. Changes in the mouse pointer are a hint to you that you can perform these Left Mouse button actions. The following table displays the different mouse pointers used in Photo>Graphics.





Resizing the Workspace is accomplished easily using the mouse. Begin by clicking on the Minimize button, if not already minimized. Place the mouse pointer over one edge or the corner of the Workspace until a double arrow appears. Press and hold the Left Mouse button and move the mouse to resize the Workspace.

The **Right Mouse** button is used to drag, skew and rotate objects on your Workspace. It is also used to access the Automatic Menu and the Context Menu with its Flow Through Menus that are dependent on what you may or may not have created on your Workspace. You will soon see how these dependent Menus work.

Mouse Cancel

Photo>Graphics has a special override of traditional mouse operations that allows you to *cancel* a rotate, skew, move or resize action. If you move the mouse when either button is held down, the resulting operation can be stopped by pressing the opposite button before releasing the first.

When the mouse is used to manipulate an object on the Workspace, the mouse pointer will change to let you know that it is ready to perform the particular action required.

Using Photo>Graphics Menus

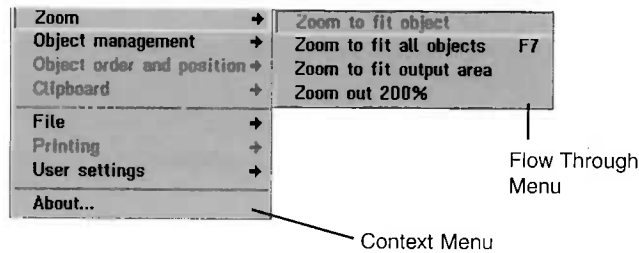
In Photo>Graphics, there are three menus that will appear when the Right Mouse button is clicked on the screen: The Context Menu, Flow Through Menus and the Automatic Menu. The Context Menu contains a list of functions that are performed to an object or project. Flow Through Menus contain commands that pertain to the functions in the Context Menus. Automatic Menus appear when you draw out a rectangle on an area of the Workspace while you are in object 'Edit' action mode.

Context Menu

The Context Menu contains all of the command options you need in Photo>Graphics to affect objects or Projects. This menu can be displayed by clicking with the Right Mouse button anywhere on the Workspace. Specific context dependent Flow Through Menus can be displayed by selecting any of the command options from the Context Menu.

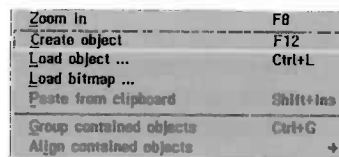
Flow Through Menus

Flow Through Menus are context dependent in that active options are changed depending on whether an object is selected or not. The Flow Through options available from the Context Menu can pertain to the Workspace in general or to a specific object.



Automatic Menu

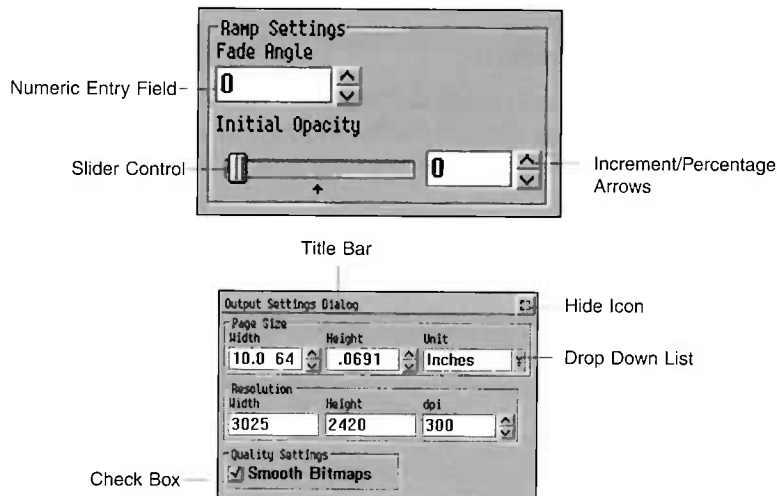
The Automatic Menu appears when you are not in object 'Create' action mode and you have drawn out a rectangle using the Left Mouse button. This Menu lets you perform an action such as 'Load Object' or 'Group contained objects'.



Using Dialog Boxes

Photo>Graphics uses dialog boxes that allow users to set or change the operational controls for functions such as printing, output settings and the properties of Regions and Tools.

Tip: Dialog boxes in TrueSpectra can be 'pulled' away from the Access Bar and positioned on the screen for easy access. To tear away a dialog box, position your mouse pointer on any part of the gray background, press and hold the Left Mouse button, and drag the dialog anywhere on your screen. To hide the dialog, click once on the Hide Icon to the right of the dialog Title Bar.



Title Bar

Note: Dialog boxes that appear by pressing Access Bar buttons will only display a Title Bar after they are pulled away from the Access Bar.

When a specific object is selected, dialog boxes that are opened relate to that specific object. The Title Bar of a related dialog contains the same name as the object. If a selected object is unnamed, a default name will be assigned to it. The Title Bar can also be used to move the dialog box around the screen. Do this by positioning the mouse pointer over the Title Bar, press and hold with the Left Mouse button and move the mouse pointer to reposition the dialog.

When a dialog is repositioned on the screen, it retains its tie to the object that it relates to. Future work on this floating dialog will relate directly to its object when selected.

Hide Icon

The Hide Icon is used to hide the dialog box by clicking on it with the Left Mouse button.

Check Boxes

Check Boxes enable or disable a specific option. The option is enabled when clicked on with the Left Mouse button and a check mark appears in the option box. The option is disabled when the box is empty.

Increment/Percent Arrows

Scroll Arrows are used to change the values in **numeric entry fields**. The mouse is used to select the up or down arrow to increase or decrease the value in the selected field. Typically these values have a broad range of possible settings.

Slider Controls

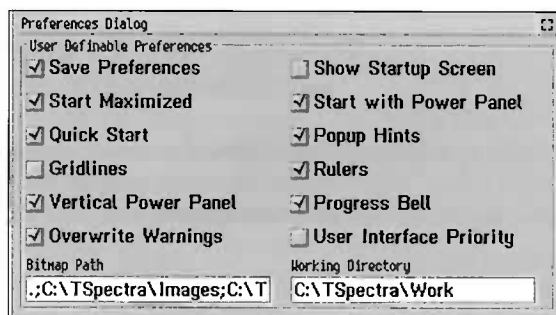
Slider Controls are used, like Scroll Arrows, to adjust the numeric value of a particular setting. A small arrow appears at certain points on some sliders. When the Left Mouse button is used to click on this arrow, the slider will automatically move to that point on the slide bar. Slider controls are only used when a broad range of values are available, such as a percentage which always varies from 1 to 100.

Drop Down Lists

Drop Down Lists, when opened, display a list of available options for a selected object. To choose from a Drop Down List, click once with the Left Mouse button on the desired option.

Setting User Preferences

The Preferences Dialog contains options for customizing the Workspace as well as certain application attributes to customize for personal preferences. User Preferences can be changed at any time while you are working on a project. Simply click on a blank area of the Workspace with the Right Mouse button, select 'User Settings' from the Context Menu, then 'Edit Preferences' from the Flow Through Menu.



Save Preferences

This option, if checked, saves changes made to the Preferences Dialog. Saved changes will be used, by default, the next time you start Photo>Graphics.

Show Startup Screen

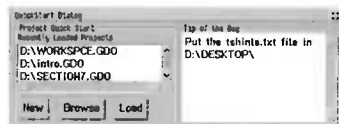
This option, if checked, displays the Startup Splash Screen every time Photo>Graphics is launched. If unchecked, the Splash Screen will appear only momentarily.

Start Maximized

This option, if checked, enables you to start with a full-sized Photo>Graphics screen. If not selected, a small Photo>Graphics screen will appear when the program is launched. This small screen can be maximized to a full screen at any time using the Maximize Icon on the Photo>Graphics Title Bar.

Quick Start

This option, if checked, will display a dialog every time you launch Photo>Graphics that includes a 'Tip of the Day' to provide useful information about using Photo>Graphics as well as a list of the most recent files you have worked on. To load a recently used file, select it from the scrolling list and click on the "Load" button.



Start with Power Panel

This option, if checked, displays the Power Panel automatically on the Workspace when you start the software. If this option is not selected, the Power Panel can be displayed by using the Right Mouse button to open the Context Menu, selecting 'User Settings' and then 'Show Power Panel' from the 'Flow Through Menu'.

Pop-up Hints

This option, if checked, enables Hint Bubbles on the Workspace. Hint Bubbles appear when the mouse pointer is placed and held momentarily over an control on the screen. The Hint Bubbles display information about that particular control.



Gridlines	This option, if checked, displays Gridlines on the Workspace. Objects tend to 'snap' to the Gridlines or subgrid when they are positioned near the lines. For more information, see <i>The Photo>Graphics Screen</i> , later in this section.
Rulers	This option, if checked, displays Rulers around the edges of the Workspace. These Rulers are used for the accurate sizing and positioning of objects. For more information, see <i>The Photo>Graphics Screen</i> , later in this section.
Progress Bell	This option, if checked, enables a bell sound at the completion of particular actions, including loading and saving. The bell indicates that the action has been completed successfully.
Overwrite Warnings	This option, if checked, enables a warning whenever you attempt to save a file with the same name as a previously saved file. This option helps to prevent the accidental overwriting of files.
Vertical Power Panel	This option, if checked, will change the orientation of the Power Panel on the screen from a wider horizontal position to a thinner vertical position.
Bitmap Path	This field is available to enter the drive and directory where you store your most frequently used bitmap files. You may specify multiple directories by inserting a semi-colon (;) between typed entries.
Working Directory	This field is available to enter the drive and directory where you save the majority of your projects and objects.

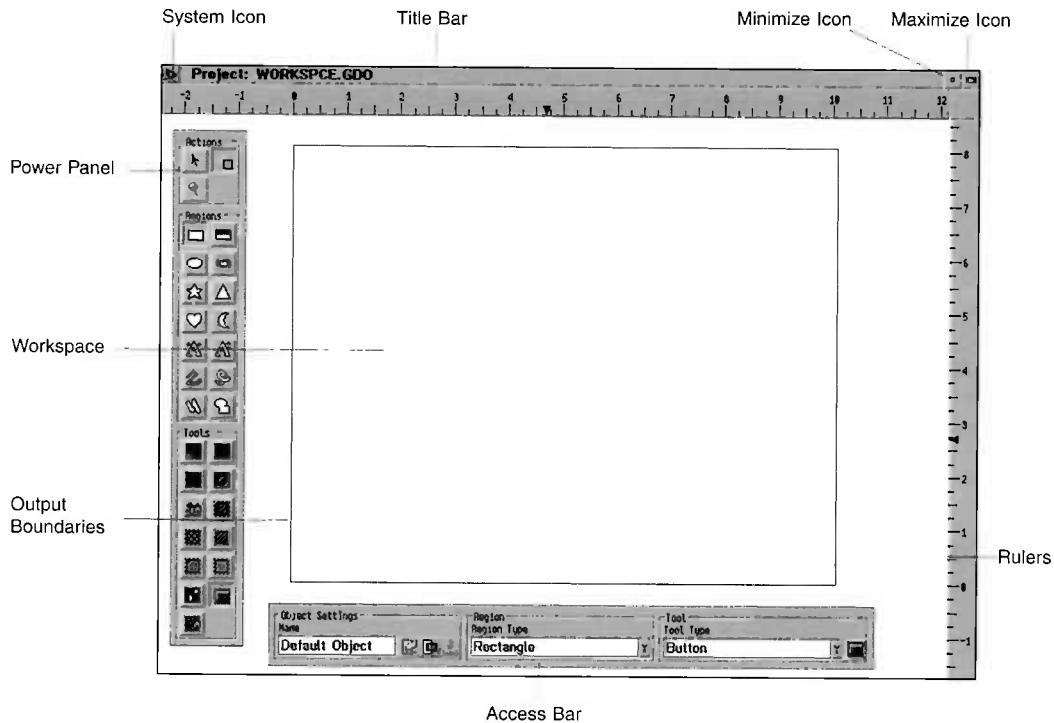
Starting Photo>Graphics

The Photo>Graphics Screen

To launch the Photo>Graphics application, double click on the Photo>Graphics icon that was placed on your OS/2 desktop during installation.

The Photo>Graphics Screen consists of several unique components.

Note: When you launch Photo>Graphics for the first time, the Power Panel will appear in a Horizontal Orientation as illustrated on the next page. It can be changed to a Vertical Orientation, as displayed here, by checking the "Vertical Power Panel" option in User Preferences.



Title Bar

The **Title Bar** will display the name of the file currently being worked on and can be used to reposition the Photo>Graphics Workspace on your screen.



Whenever you create a new object or make changes on your Workspace, the ColorWave render engine displays a percent completed status to the right of the project name on the Title Bar. Complex projects may sometimes render a little slower than simple projects, but you will know when rendering is completed by the absence of the status indicator.



The Icon controls for Minimizing and Maximizing Photo>Graphics are found on the far right side of the Title Bar. The System Icon on the left side of the Title Bar can be used to Restore, Move, Size, Minimize, Maximize, Hide or Close Photo>Graphics.

Workspace

The large white area within the Photo>Graphics Screen is the Workspace. The Workspace is a virtually unlimited digital canvas where you can create an image or drawing. By using the Pan and Zoom out features of Photo>Graphics, the ColorWave render engine enables you to create an unlimited number of objects on your Workspace. The solid thin outline on the Workspace represents the Output area and only the parts of a Project that appear within this outline will be printed or Saved Rendered to a bitmap format.

Power Panel

When you launch Photo>Graphics, the Power Panel appears on the left side of your Workspace. The Power Panel allows you to easily Create objects, Edit objects or Pan or Zoom in and out on your Workspace.

Hint: The orientation of the Power Panel can be changed from horizontal (as shown here) to vertical (as shown on the diagram of the Photo>Graphics Screen), by selecting the 'Show Vertical Power Panel' check box in the Preferences dialog.



The Power Panel can be moved to any location on the Workspace. Simply press and hold the Right Mouse button while the mouse pointer is positioned over any part of the Power Panel and drag the mouse to a desired location on the Workspace.

To close the Power Panel, click once with your Left Mouse button on any gray area of the Power Panel and then press the 'Escape' key on the keyboard. To reopen the Power Panel, click anywhere on the Workspace with the Right Mouse button. From the Context Menu that appears, choose 'User Settings', and then choose 'Show Power Panel' from the Flow Through Menu.

Access Bar

Hint: You can push any button on the Access Bar to see the control it represents without fear of actually changing an object.

The Access Bar will appear at the bottom of the Workspace when you launch Photo>Graphics.

The Access Bar is divided into three main areas: The Object Settings area, the Region area, and the Tool area. Each of these areas reflect the properties of the object selected currently on the Workspace.



If there are no objects on the Workspace, or if none is selected, then the Access Bar would reflect the properties of the next object to be created. The properties of that object would be the same as the last object created or would be a default setting if no object had yet been created.

All of the controls needed to make adjustments to Object Settings, Regions or Tools are found on the Access Bar.

The Access Bar can be moved to any location on the Workspace. Simply press and hold the Right Mouse button while the mouse pointer is over any part of the Access Bar and move the Access Bar to a desired location on the Workspace.

Rulers

Rulers can be set to appear at the edges of the Workspace to help determine the accurate size and position of objects. To turn this option on or off, change the Rulers check box in the User Preferences dialog. The scale used for the Rulers are the unit of measurement specified for your Project in the Output Settings. You may choose from inches, centimeters, points or pixels.

Gridlines

To align objects on the Workspace, Gridlines can be displayed. To turn Gridlines on, select the Gridlines check box in the Preferences dialog. When Gridlines are turned on, objects tend to "snap" to the grid or subgrid (every 1/8 of the grid square) when positioned close to it.



Getting Started

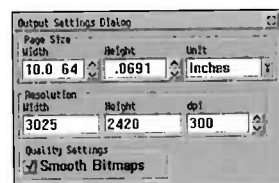
Output Settings

Tip: The 'Smooth Bitmaps' setting slows Photo>Graphics rendering. It is recommended that this setting be selected only before printing if you are experiencing slow rendering.

Printing and Electronic Output

Output Settings define the size of the pink rectangle displayed on the Workspace. Choose 'File' from the Context Menu then 'Output Settings' from the Flow Through Menu. This output area can be measured in inches, centimeters, points or pixels.

It is important to note that with the resolution independent ColorWave render engine, it is not necessary to specify the desired final output size before you begin to work on a project. Objects will be stored in a resolution-independent form regardless of your output settings.



When printing Projects, the Output Size specified on the Output Settings dialog dictates the size of the project as it will appear on the printed page. To print a project from Photo>Graphics, display the Context Menu by clicking once on the Workspace with the Right Mouse button. From the menu that appears, choose 'Print', and an OS/2 print dialog will appear. Follow the instructions for the printer you have installed under OS/2.

If you wish to output a project electronically, it is important to specify the resolution in dots per square inch (dpi). You should also smooth the image so that it is not pixelated when it is saved. See *Section 8: Saving Your Work* for more information on *Resolution*.

Creating and Opening a Project

As you work with Photo>Graphics, you are actually creating a series of interacting, *resolution-independent* "objects" known collectively as a "Project".

The easiest way to create a new project is to begin by loading an existing bitmap or a previously saved object. The alternative is to create an object from scratch. See *Section 2: Creating Objects* for more information on creating an object from scratch.

To load a bitmap

1. Choose the object 'Create' action mode on the Power Panel.
2. Select a Region and the Bitmap Tool.
3. The Load Bitmap dialog will appear. Select the drive, directory and name of the file you wish to bring onto your Workspace.

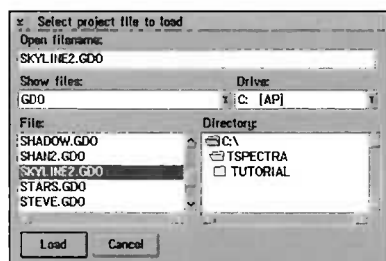
4. Move your mouse pointer to the top left corner of a blank area on the Workspace.
5. Press and hold the Left Mouse button while dragging your mouse to the bottom right corner and then release the Left Mouse button.

When a bitmap is loaded, the Access Bar will change to reflect the properties of the object: A particular Region filled with a Bitmap Tool. See *Section 2: Creating Objects* for more information about Regions and Tools.

In Photo>Graphics, you can save a project that you have created as an object. Saved objects may be imported into future projects. For more information, see *Section 8: Saving your Work*.

To load a previously saved object

1. On a blank area of the Workspace, click once with the Right Mouse button to bring up the Context Menu.
2. From this menu, select 'File' and then 'Load Object'.
3. Choose the drive and directory that contains the object you wish to load.
4. Highlight the name of the object to load and double click on it or choose "Load". (*objects have the file extension .ORC*)



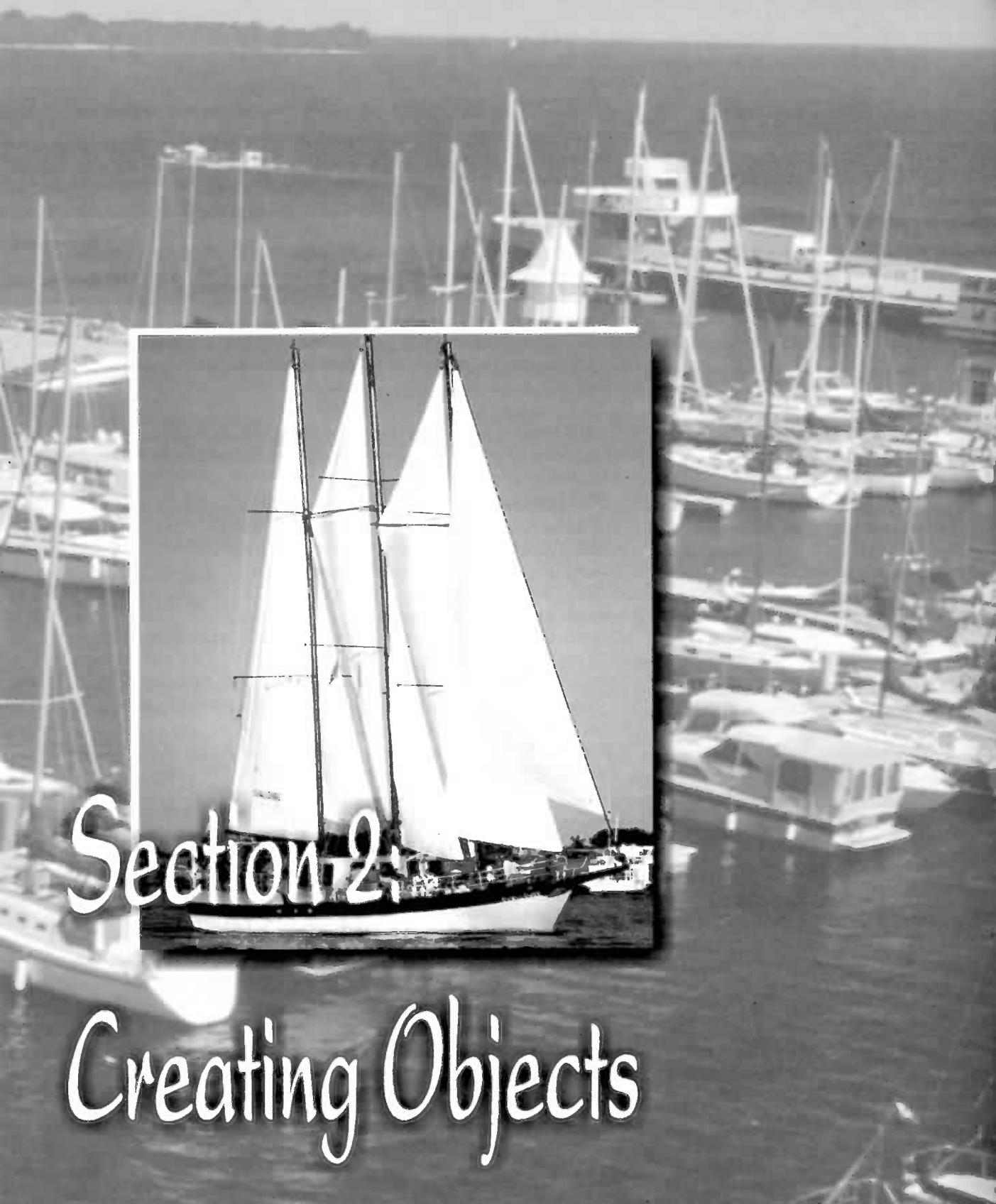
To open a previously saved project

1. On the blank Workspace, click once with the Right Mouse button to bring up the Context Menu.
2. From this menu, select 'File' and then choose 'Open Project'. The Open Project dialog will appear. Choose the drive and directory that contains the project that you wish to open.
3. Highlight the name of the Project to open and double click on it or choose "Load". (*Projects have the file extension .GDO*)

Exiting Photo>Graphics

When exiting Photo>Graphics, first ensure that any work that is newly created has been saved. Click on the Icon in the top left corner of the Photo>Graphics Workspace and choose "Close" from the menu that appears. A dialog will appear asking if you are sure you want to leave the program. This warning dialog is also intended to help to safeguard against closing the program without first saving new projects or edits to existing ones.





Section 2:

Creating Objects

The Photo>Graphics Concept

Every element in a Photo>Graphics design is a live, *resolution-independent*, interactive object. These objects are made up of two elements - a 'Region' and a 'Tool'.

$$\text{Object} = \text{Region} + \text{Tool}$$

(shape or area) (fill or effect)

A *Region* is a specific area which is an identifiable shape that defines the boundaries of an object. Examples of such Regions include Rectangles, Ellipses, Triangles, etc.

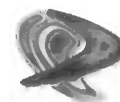
Photo>Graphics expands this traditional definition of a Region by incorporating true transparency into its Regions. Not all Regions have solid edges. For example, the Ellipse Fade Region applies a color (or other fill or effect) more strongly in the center, with decreasing intensity toward the circumference. This is an important capability of Regions and vital for advanced creative design. The result is seamless blending of effects into underlying objects. Examples of this combination include Ramps, Ellipse Fades, and softening of line edges.

A *Tool* is an instrument that creates the 'fill' or 'effect' that, when combined with a Region, interact to form an object. A Tool defines how a Region and, hence, an object appears. Examples of Tools include Solid Color fills, Bitmap fills, Wave effects and Pixelate effects. For example, if you created a Heart Shaped Region that is filled with a Solid Color Tool, identified as the color blue, the resulting object would be one that represents a blue heart.

Any Tool can be combined with any Region to form an object. Since objects interact, simple objects can be combined very easily to create increasingly detailed compositions.

For example, a Rectangle Region with a Bitmap fill may be overlapped by a Rectangle Region with an Emboss effect. The area of the Bitmap filled object that is covered by the Emboss effect object will have that emboss effect applied. If the Emboss is then overlapped by a Rectangle Region with a Wave effect, the Bitmap filled object will have the Emboss effect applied, and then the Wave effect applied.

Effects such as those mentioned above are cumulative, with the upper most Region affecting everything else below it. There is no limit to the number of combinations of Regions and Tools that can be overlapped to enhance your projects.

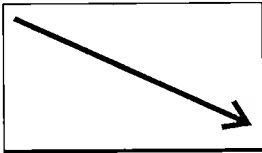


Creating Objects

An object results from combining any Region with any Tool.

To create a new object

1. Press the object 'Create' button on the Power Panel.
2. Choose the Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object.
4. Press and hold the Left Mouse button while dragging your mouse to create the approximate size of the object you wish to create. When you release the Left Mouse button, the predefined object will appear on your Workspace.
5. Give the object a name in the Object Settings area on the Access Bar. See *Naming Objects* for additional information.



Draw out a rectangle using the mouse.

When the newly created object appears on your workspace, the controls on the Access Bar will change to reflect the status and properties of the new object. When you select another object, or edit an object by choosing a different Region or Tool, the Access Bar changes to reflect the properties of that new or edited object.

To change the Region or Tool of an existing object

1. Press the object 'Edit' button in the Actions section of the Power Panel
2. With your mouse, select the object you wish to change or edit.
3. From the Power Panel, choose the new Region or Tool that you wish to apply to the selected object. The changes to the object will be instantly displayed on your workspace.

Choosing a Region

In Photo>Graphics, a Region is the shape or boundary of an object. The Regions available in TrueSpectra Photo>Graphics, as displayed on this portion of the Power Panel, include:

- | | |
|----------------------|---------------------------|
| Rectangle Region | Ramp Region |
| Ellipse Region | Ellipse Fade Region |
| Star Shape Region | Triangle Shape Region |
| Heart Shape Region | Quarter-Moon Shape Region |
| Headline Text Region | Block Text Region |
| User Draw Regions | Custom Region |



Rectangles and Squares



To create a Rectangle

1. Press the object 'Create' button on the Power Panel.
2. Choose the Rectangle Region shape and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the rectangular object will appear on your Workspace.
5. Name the object.

To create a Square



1. Follow the same steps used to create a Rectangle.
2. Once you have a selected Rectangle on the Workspace, you will see a rectangular marquee outlining the object. Press the 'Object Size, Position and Angle' button in the Object Settings area on the Access Bar. The dialog that appears will allow you to enter new quantities for the height and width of the Rectangle.
3. Enter identical numbers into the height and width fields.
4. Check the name of the object.

Ellipses and Circles



To create an Ellipse

1. Press the object 'Create' button on the Power Panel.
2. Choose the Ellipse Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the elliptical object will appear on your Workspace.
5. Name the object.

To create a Circle

1. Follow the same steps used to create an Ellipse.
2. Once you have a selected Ellipse on the Workspace, press the 'Object Size, Position and Angle' button in the Object Settings area on the Access Bar. The dialog that appears will allow you to enter new quantities for the height and width of the Ellipse.
3. Enter identical numbers into the height and width fields.
4. Check the name of the object.



Creating Ellipses and Circles with Fading Edges

The Ellipse Fade Region will produce an object that will appear solid or more opaque in the center and will fade to be transparent around the edges.



An example of an Ellipse Fade Region.

To create an Ellipse with faded edges

1. Press the object 'Create' button on the Power Panel.
2. Choose the Ellipse Fade Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the Ellipse Fade object will appear on your Workspace.
5. Name the object.



To create a Circle with faded edges

1. Follow the same steps used to create an Ellipse Fade.
2. Once you have an Ellipse Fade on the Workspace, press the 'Object Size, Position and Angle' button. This dialog will allow you to enter new quantities for the height and width of the Ellipse Fade.
3. Enter identical numbers into the height and width fields.
4. Check the name of the object.

To adjust the opacity of the Ellipse or circular fade

It is possible to increase or decrease the rate of change of the fade of an Ellipse Fade Region. The higher the value entered, the more dense the entire fade will become.



1. Be sure that the Ellipse Fade object is selected. Press the 'Ellipse Fade Settings' button in the Region area on the Access Bar.
2. Enter a value, or use the slider to achieve the degree of Opacity you desire for the fade.

**Other
Shape Regions**



To create a Star Shape

1. Press the object 'Create' button on the Power Panel.
2. Choose the Star Shape Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the star-shaped object will appear on your Workspace.
5. Name the object.

To create a Heart Shape



1. Press the object 'Create' button on the Power Panel.
2. Choose the Heart Shape Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the heart-shaped object will appear on your Workspace.
5. Name your object.

To create a Triangle Shape



1. Press the object 'Create' button on the Power Panel.
2. Choose the Triangle Shape Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the triangular object will appear on your Workspace.
5. Name the object.

To create a Quarter-Moon Shape



1. Press the object 'Create' button on the Power Panel.
2. Choose the Quarter-Moon Shape Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button



- while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the Quarter-Moon object will appear on your Workspace.
 5. Name the object.

Ramp Region

A Ramp produces a gradual fade of your object with 100% density, or opacity, of the applied Tool starting at the top of the Region. The ramp fades to 0% density at the bottom of the Region, becoming fully transparent. When using the Ramp Region, it is important to note that it will always appear as a rectangle or square shape (unless it is used to define the contents of a Custom Tool - see *Filling Objects, Choosing a Tool* later in this section).



An example of a Ramp Region

Hint: You can change the orientation of the fade by “flipping” the object over (See [Section 3: Working With Objects](#)). This is another way you can move the 100% density from the top of the object to the bottom of the object.

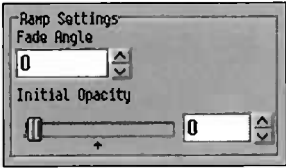
To create a Ramp

1. Press the object ‘Create’ button on the Power Panel.
2. Choose the Ramp Region and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the Ramp object will appear on your Workspace.
5. Name the object.

To adjust the direction of the Ramp fade

To adjust the direction or angle of a Ramp fade, you must first assign an angle to the Ramp fade.

1. Be sure that the Ramp object is selected. Press the Ramp Properties button in the Region area on the Access Bar.
2. Enter the number of degrees (1 to 360) necessary in order to achieve the direction you wish the Ramp to appear.



To adjust the opacity of the Ramp fade

It is possible to increase or decrease the rate of change of the fade of a Ramp Region. The higher the value entered, the more dense the entire fade will become.

- 1. Be sure that the Ramp object is selected. Press the 'Ramp Properties' button in the Region area on the Access Bar.
- 2. Enter a value or use the slider to achieve the degree of Opacity you desire for the Ramp fade.

Text Regions



To add Text to a Project

- 1. Press the object 'Create' button on the Power Panel.
- 2. Choose a Text Region (there are two, Headline Text or Block Text) and a Tool that you wish to use to create the new object.
- 3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
- 4. When you release the Left Mouse button, the text object will appear on your Workspace.
- 5. Name the object.

The word "Headline" will appear in a Headline Text Region as the default text entry and the word "Paragraph" will appear as the default text entry of a Block Text Region. See *Section 5: Working With Text* for more information about the distinction between Headline and Block Text, editing and formatting Text Regions.

Custom Region

Custom Regions provide users with a powerful vehicle for creating unique Region shapes for objects. The information that follows should be read carefully in order to understand and exploit the full potential of Custom Regions.

When you first create a Custom Region object, it is invisible. The properties of the Custom Region object must be defined in order that the object to becomes visible on the Workspace.



When the Edit Custom Region button on the Access Bar is selected, a small Custom Region work area appears. It is within this work area that the Custom Region is defined. Objects created within this work area will be displayed on



the Workspace and the new object on the Workspace will behave as one, single object.

A Custom Region can be composed of multiple objects with each of those objects being made up of multiple Regions and fills or effects. This sets the stage for the creation of exciting images and effects that would otherwise be impossible.

When an object is created with a Custom Region, its transparency on the Workspace depends on the brightness and the color of the object defined within the Custom Region work area. For example, if the object used in the Custom Region is black, the object on the Workspace will be completely opaque. If the object used in the Custom Region is white, the object on the Workspace will appear to be completely transparent (invisible). All other colors will translate into a degree of transparency, depending on their brightness or Grayscale Tool value, between 0% and 100%.



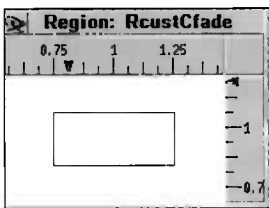
Hint: The Custom Region work area can be resized to provide a larger work area. Move your mouse pointer to one corner of the work area and a resize pointer will appear. Press and hold the left mouse button while dragging diagonally.

To create a Custom Region

1. Press the object 'Create' button on the Power Panel.
2. Choose the Custom Region button and Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the custom Region object will appear on your Workspace.
5. Name the object.

To define a Custom Region

1. Select the object containing the Custom Region.
2. Press the Edit Custom Region button in the Region area on the Access Bar. A small window will appear identifying it as a Custom Region. This is the Custom Region work area.
3. Define the appearance of the Region by inserting new objects into the custom Region work area (bound by the pink border) and choosing a Tool for each object that will create the effect you are trying to achieve.



Note: The thin, solid border outline that appears in the Custom Region work area represents a scaled copy of the marquee outline of the object containing the Custom Region on your Workspace. Be sure to utilize the entire area within the pink border outline in the Custom Region work area if you want to fill the whole area designated to be the Custom Region object on your Workspace.

User Draw Regions

To provide a broad range of draw capability in Photo>Graphics, three types of User Draw Regions can be used to Create and Edit objects. For more information on User Draw Regions, see *Section 7: Drawing Objects*.

To draw a straight line



1. Press the object 'Create' button on the Power Panel.
2. Choose the Line Draw Region type, and a Tool for the lines you wish to draw. Your mouse pointer will change to the Line Draw Pointer.
3. Move your mouse pointer to a point on the Workspace where you would like to start your line drawing and click once with the Left Mouse button to identify the starting point for your line.
4. Move the mouse pointer in the direction of the position of the end point of that line on the Workspace. You will notice a 'rubberband' type line following your cursor.
5. When the line is the desired length and in the proper orientation, click once with the Left Mouse button to end the line. If you wish to conclude your drawing here, click once with the Right Mouse button.
6. If you want to continue and draw a second straight line that is connected to the first, simply move your mouse pointer to the new end position and press the Left Mouse button once to complete that line. Continue this step until you have achieved the shape of the line draw object you desire.

To draw freehand lines and curves



1. Press the object 'Create' button on the Power Panel.
2. Choose the Freehand Draw Region type, and Tool for the lines you wish to draw. Your mouse pointer will change to the Freehand Draw Pointer (it looks like a feather).
3. Move your mouse pointer to an area on the Workspace where you would like to start your freehand drawing.
4. Press and hold the Left Mouse button and begin dragging the mouse along a path to create your drawing.
5. To conclude drawing, simply release the Left Mouse button.

To fill areas on the Workspace using the roller



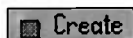
1. Press the object 'Create' button on the Power Panel.
2. Select the Roller Draw Region type button and a Tool for the area you wish to fill.
3. Move your mouse pointer to an area on the Workspace where you would like to start your roller drawing.
4. Press and hold the Left Mouse button and begin dragging the mouse along a path to create your drawing.
5. To conclude drawing, simply release the Left Mouse button.

Note: Each time you depress the Left Mouse button, you are creating a new object. See Section 7 for information on how to continue drawing.



Choosing a Tool

When Photo>Graphics is first launched, a default fill Tool is selected on the Power Panel. The default fill Tool is the Color Fade fill. This means that if you create an object without selecting a different Tool, it will be filled with a solid color. It is possible to redefine the default Tool by using your mouse button to select a new Tool type from the Power Panel.



To select a Tool to fill a new object

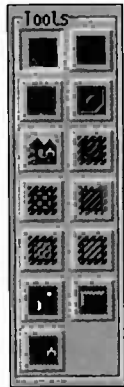
1. Create a new object, by pressing the object 'Create' button on the Power Panel.
2. Select a Region, and a Tool to apply to the new object by clicking on one Region and one Tool on the Power Panel with the Left Mouse button.
3. Move your mouse pointer to an area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the new object will appear on your Workspace.
5. Name the object.

Once you have created an object, you may wish to change its appearance. This can be accomplished by changing the Region and, therefore, its shape or by changing the Tool and, therefore, its fill or effect.

To change an applied Tool

1. Use your mouse to select the object you wish to change.
2. Choose a new Tool type from the fills and effects represented on the Power Panel.

Fill and Effect Tools



This is the Tools area on the Power Panel

In Photo>Graphics, the Tools available to choose from fall into one of two categories — fills or effects.

When you combine a fill Tool type with any Region, the result will be a ‘visible’ object. The characteristics of the Tool are independent of all other objects on the canvas.

When you combine an effect Tool type with any Region, the result will most often be an ‘invisible’ object. When an ‘invisible’ object is placed over a ‘visible’ object, the characteristics of the effect Tool type are imposed on the ‘visible’ object.

Fill Tools	Effect Tools	
Bitmap	Emboss	Button
Solid Color	Grayscale	Noise
Color Fade	Blur	Contrast & Brightness
Custom Tool	Wave	Sharpen
	Pixelate	

HINT: An easy way to apply an effect Tool to an existing, visible object is to duplicate the visible object so that you have two identical objects directly aligned, one on top of the other. Then change the Tool of the object on top to apply the characteristics of an effect Tool of your choice.

Choosing a Fill Tool

Bitmap



A digital image is comprised of a collection of dots or “pixels” that each contain a specific color assignment. A bitmap is the collection of pixels from an image that has been stored electronically and can be manipulated on a computer.

Bitmaps can contain from 2 to 16.7 million color combinations, depending upon your application, and may be any type of image. See Section 6: Working With Bitmaps for more information on how to edit and manipulate bitmap images.

Note: Internally, all bitmaps are dealt with as 24 bit (or 16.7 million colors)

Photo>Graphics can load the following bitmap formats:

- .JPG Joint Photographic Experts Group images JPEG format
- .PCD PhotoCD
- .BMP OS/2 or Windows Bitmap
- .GIF Graphics Interchange Format
- .TIF Tagged Image File Format
- .TGA Targa



Solid Color



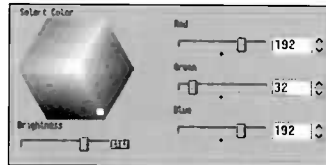
Hint: If at any time, the brightness slider is set to the far left (at the value "0"), then any color you choose from the color palette will appear black.

This Tool lets you select a solid color to fill your Region.

To change the color of a Solid Color fill

Select the Color Selection button in the Tool area of the Access Bar. A Color Settings dialog will appear automatically. This dialog contains a Color Palette, a Brightness slider and three Color Component sliders (Red, Green, Blue).

Manipulate the color of an object with direct selection by clicking with the Left Mouse button directly on the Color Palette.



Use the direct selection method in conjunction with the brightness slider to select the desired color. To increase color brightness, move the slider to the right; to decrease the color brightness, move the slider to the left.

Another alternative for changing the color of an object is to enter specific numerical values in each of the three RGB Color Component fields or use the associated sliders to adjust the value of a particular color component.

To match the color of an existing object

Press and hold the Left Mouse button anywhere on the Color Palette and drag the mouse pointer over top of the area in an object containing the desired color. Release the Left Mouse button to complete the color selection.

Color Fade



A Color Fade, when applied to a Region, gives the illusion of colors blending together from the corners of the object. This Tool allows you to select a different color for each of the four corners of a Region. This is done by using the Color Selector button in the Tool area of the Access Bar.



To select corner colors

Press the Color Selector button in the Tool area on the Access Bar. Four new buttons will appear. Each of these buttons represent one of the four corners of your object. Press the button that corresponds to the corner you wish to change the color of and use the controls on the Color Selection dialog to achieve the desired color.

Keep in mind that if you have rotated or flipped the object, the corners will no longer appear in the proper designated positions. For example, if you flip/mirror a rectangle vertically, the Top Left Corner becomes the Bottom Left Corner; the Top Right Corner becomes the Bottom Right Corner and so on.

Custom Tool



Custom Tools allow you to customize the fill of an object in order to create more complex and advanced graphic effects, by using the shapes, fills and effects already available to you. When you first create an object using a Custom Tool, it is invisible. The properties of the Custom Tool must be defined in order for the object to become visible.

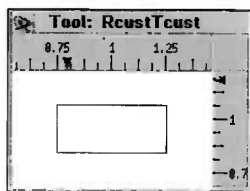


When the Edit Custom Tool button on the Access Bar is selected, a small Custom Tool work area appears. It is within this work area that the Custom Tool is defined.

Objects created within the Custom Tool work area are automatically applied to the primary object on the Workspace and determine its fill. For example if you create a purple Ellipse Fade object within the Custom Tool work area, the primary object on the Workspace will be filled with a purple Ellipse Fade fill.

To create a Custom Tool

1. Press the object 'Create' button on the Power Panel.
2. Choose the Region for the object, and the Custom Tool button for the fill.
3. Move your mouse pointer to the area on your Workspace where you wish to place one corner of your object. Press and hold the Left Mouse button while dragging diagonally until the approximate size and placement has been achieved for the new object.
4. When you release the Left Mouse button, the object containing the Custom Tool will appear on your Workspace.
5. Name the object.



Note: The thin, solid border outline that appears in the Custom Tool work area represents the marquee outline of the object containing the Custom Tool on your Workspace.

To define a Custom Tool

1. Select the object containing the Custom Tool on the Workspace.
2. Press the Edit Custom Tool button in the Region area on the Access Bar. A small window will appear identifying it as a Custom Tool.
3. Define the appearance of the Tool by inserting new objects into the Custom Tool work area (bounded by the thin, solid border) and choosing a Region and Tool for each object that will create the effect you are trying to achieve.



Choosing an Effect Tool

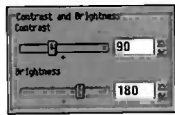
Contrast & Brightness



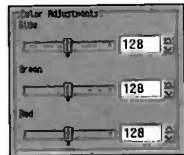
The Contrast & Brightness Tool is used to adjust the contrast and the overall brightness of an underlying object. In addition, with this effect you can adjust the individual color channels of an underlying image.



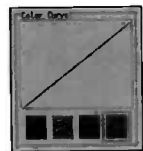
Contrast is the balance in an image of dark, bright and mid-range tones. A high-contrast image has stark dark and bright tones and is void of mid-range tones. A low-contrast image is void of both stark dark and bright tones and is made up of a range of mid-range tones. Brightness refers to the amount of light or dark present in the image.



Adjusting the contrast or brightness of an underlying image is done from within the Tool area on the Access Bar. When the Contrast and Brightness button is pressed, two sliders appear. These sliders affect the overall contrast and brightness of the image in a non-linear way. Moving the sliders to the right will increase the brightness or contrast of the image and moving the sliders to the left will reduce the brightness or contrast of the image.



When the Color Channels button is pressed, three sliders appear. These sliders individually affect the blue, green and red channels of the image in the same way that the brightness slider affects the entire image.



The Contrast & Brightness Tool operates by applying mathematical curves to the image. These curves can be changed manually using the Color Curve graph. When the Color Curve button is pressed, the Color Curve graph appears. You can draw a new curve by dragging over the graph with the left mouse button. By choosing one of the boxes below the graph, you can change one the Color Channel at a time, or all three at the same time.

Emboss



Hint: Try adjusting the transparency of the embossed object. This is especially effective when the Emboss object is placed over a bitmap image.

When you combine the Emboss Tool with a Region, the object you create will affect all objects underneath, appearing as though they are 'punching' up through the Emboss object to create a three-dimensional, raised surface.

The three dimensional effect is achieved since a 'lighting illusion' is applied to certain edges of your image. If you rotate an embossed object, it appears as if the lighting, which produces the embossed highlights, is coming from a different angle.

The default color of an embossed object is gray, but by clicking on the Color Selection Button in the Tool area on the Access Bar and selecting a new hue, the emboss effect can be given color.

Grayscale

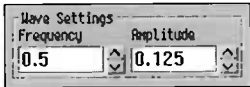


The Grayscale Tool can be used to make a color image appear black and white. When an object with a Grayscale Tool is used over an object that contains a range of colors, it converts the color image into 256 shades of gray.

Wave



The Wave Tool distorts the selected Region and all objects beneath it. You can control the distortion by inserting new numeric values for each of these wave settings:



- Frequency* reflects the number of peaks and valleys along the wave
- Amplitude* reflects the height of each peak or valley from the midpoint of the wave

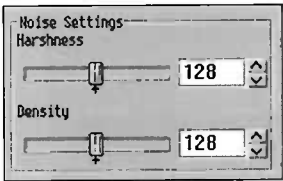
To change the Frequency or Amplitude of a Wave Tool, press the Wave Settings button in the Tool area on the Access Bar and enter new values in the numeric fields.

Noise



Placing an object that contains noise over an image will result in a granular effect. This is one way to add texture to a dull or flat looking photograph.

The settings of the noise Tool can be adjusted for additional effect. There are two properties of noise that you can adjust to change the effect of this tool.



- Harshness* affects the brightness of the noise. Reducing harshness makes the noise look lighter, and increasing harshness makes the noise look darker.
- Density* affects the proximity of the noise. Reducing density makes the noise spread apart, and increasing density makes the noise come closer together.

To change the harshness or density of an object with a Noise fill press the Noise Settings button in the Tool area on the Access Bar and enter a specific value, or use the sliders to achieve a desired effect.





**Sharpen
Effect**



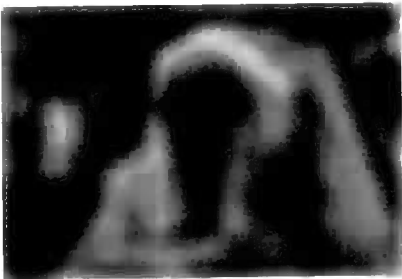
**Pixelate
Effect**



**Emboss
Effect**



**Blur
Effect**



**Noise
Effect**



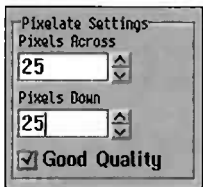
**Wave
Effect**



Pixelate



An object that contains the pixelate tool, when placed over an image, will create a block-like effect with all of the pixels that are beneath it. The pixels of the image will look larger than normal, resulting in loss of detail in the area affected.



The size of the pixels in the affected area can be adjusted by entering a value for the number of pixels you wish to appear horizontally and vertically in the object. The more pixels you specify, the smaller the blocks will be. The less pixels that appear in the object, the larger the pixel blocks will be.

To adjust the number of horizontal and vertical pixels press the Pixelate Settings button in the Tool area on the Access Bar. Here you can enter a value for pixels in the horizontal direction (X Blocks) and the vertical direction (Y Blocks).

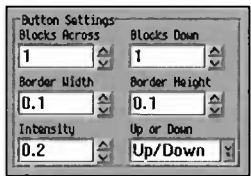
Button



The fastest way to design a button for use in your Projects or Internet Web page designs is by using the Button Tool. When an object with the Button Tool is placed over any visible object, a 'button look' is created instantly.

The most efficient way to generate a button is to first create an object (usually a square or rectangle) with the Tool that you want to be the fill for the button. Next, duplicate that object and change the new object's Tool to a Button. This will ensure that the button effect is in the same position and exact size as the fill for the button.

Press the Button Settings button in the Tool area on the Access Bar to adjust any of the following:



Number of Buttons

The Region can be assigned a specified number of buttons across and down. Simply enter the desired quantities in the Blocks Across and Blocks Down fields.

Border Width & Height

These values will alter not only the width and height of the borders, but also the surface area(s) of the button(s). Use the scroll arrows to change these values or directly enter numeric values for these fields.

Intensity

This setting increases the shading of the border that creates the 'button look'. By increasing the intensity of the button, the dark shaded panels become darker and the light shaded panels become brighter.



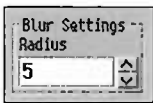
Up or Down

When a single button is created, by default it is set to “*Button Up*” (as opposed to a pressed button) mode. When several buttons are created by increasing the number in the across and down fields, the buttons are alternately displayed “*Up and Down*”. These may be altered to “*All Up*” or “*All Down*” if desired.

Blur



Placing an object with the Blur Tool over a visible object will blur the area directly beneath it. The resulting effect can be used to create the illusion of motion. It can be used to enhance the appearance of shadows or to smooth an exceptionally ‘blotchy’ or pixelated image.



To blur the edges of an image, the Blur object must be slightly larger than the underlying image. You can adjust the Blur to make it more, or less, extreme using the intensity or radius settings.

The intensity, or the radius, of the blur can be increased or decreased by pressing the Blur Settings button in the Tool area on the Access Bar and entering a new value in the Intensity field. Blur is a percentage of the surface area that it covers and is relative to the size of the object.

Sharpen



When an object with a sharpen Tool is placed over top of another image, particularly a bitmap, it will enhance the edges of the image and bring out more detail. You can increase or decrease the amount of sharpness by pressing the Sharpen Settings button in the Tool area on the Access Bar and adjusting the Harshness and Radius values.



Harshness

The value entered in this field represents how severely the image is affected. The greater the value, the more intense the effect.

Radius

The value in this field determines how much ‘look around’ takes place for the sharpen effect. The greater the value here, the wider apart the bright peaks and dark valleys will appear.

Naming Objects

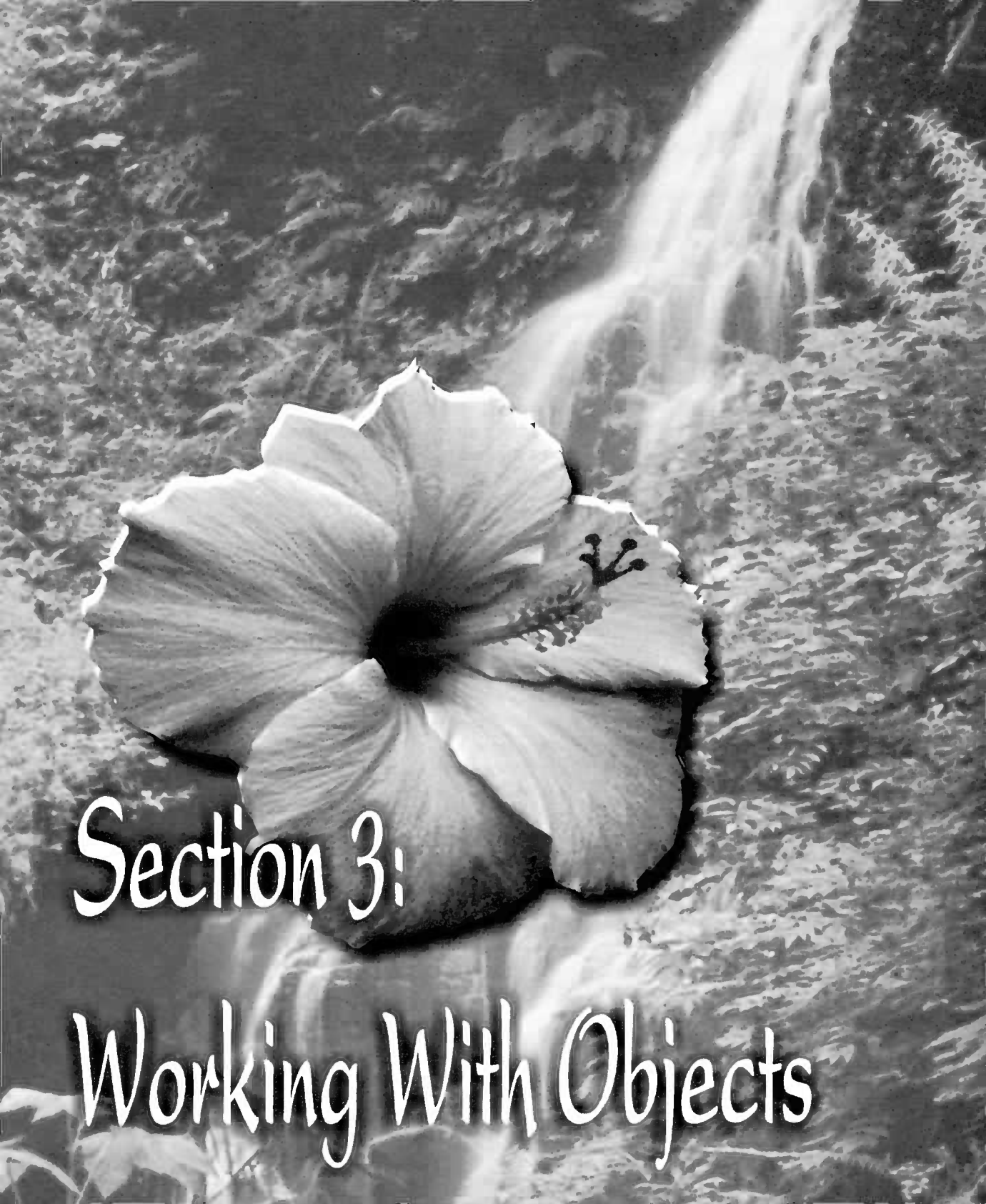
Objects in Photo>Graphics are given default names. These default names are assigned based on the Region and Tool of the object. For example, a Rectangle Region filled with a Solid Color Tool will be assigned the default name 'RectScol'.

Every object can be given a meaningful name. For example, if you have used a Star Shaped Region combined with a Solid Color yellow Tool, you might choose to name that object "yellow star". Naming objects is especially useful when several objects appear on your Workspace that are linked to floating dialog boxes. To identify which dialog links to an object, the object name is displayed in the Title Bar of the dialog.



How to assign a meaningful name to an object

1. Select the object to name and move the mouse pointer over the name field containing the default object name in the Object Settings dialogue box on the Access Bar.
2. Delete the default name and key in a new, meaningful name.



Section 3:

Working With Objects

Selecting Objects



A selected object can be identified easily by the live marquee outline around it, as well as the ways the mouse pointer behaves when it is near or above the selected object. When a marquee outline is visible around an object, it means that you can rotate, stretch, mirror, skew, move, resize and manipulate that object in a number of different ways.

To select an object while in Edit action mode, simply move your mouse pointer over any visible part of the object and click once with your Left Mouse button. A marquee will highlight the selected object.

You can confirm that you have indeed selected the correct object by checking the properties of the object on the Access Bar. Look to see that the name of the object, and the Region and Tool descriptions match the object that you wish to select. You will find this procedure useful when you are selecting objects that are layered under 'effects'.

Selecting Objects that are Layered

If you are working on a complex project that contains many layers of objects, you can cycle through the displayed objects using the Page Up/Page Down keys on the keyboard, or by clicking the Left Mouse button on the layered objects until the appropriate object is selected.

To use the keyboard, select one object in your project by clicking on it once with your Left Mouse button. When the marquee outline appears, you can then use the Page Up key to cycle through the objects in the order that they appear on your screen. To cycle through the objects in reverse order, use the Page Down key.

As you press the Page Up key, the marquee outline will jump to the next object, and the Access Bar will change to reflect the properties of the currently selected object. Continue this procedure until you have highlighted the appropriate object.

Selecting Grouped Objects

A grouped object can be selected and manipulated in the same manner as a single object. To select a grouped object, move the mouse pointer over any part of the group and click once with the Left Mouse button. A marquee outline will appear around the group of objects and the Access Bar will change to indicate that the group is selected. Naming the group is also beneficial in identifying it for later use.



To Deselect an Object

To deselect an object, click once with your Left Mouse button on any blank area of your Workspace or press the 'ESC' (Escape) Key.. The marquee outline will disappear, indicating that no objects are selected.

Arranging Objects

Adjusting the order in which objects appear can change the perspective of a project by adding a 'layered' effect, while grouping objects can make it easier to move and resize numerous objects at the same time. You can also align objects horizontally and vertically, center them or justify to one side of your Workspace.

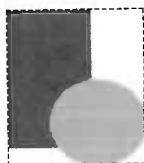
Grouping Objects

Grouped objects in Photo>Graphics are called 'Compound' objects. Creating Compound objects makes it easier to select and manipulate parts of your Projects by making them behave like a single object.

Note: Objects that are set to "lock" in the Miscellaneous Properties dialog cannot be grouped. See [Manipulating Objects](#) for more information about locking objects.

To create a grouped (Compound) object

1. Arrange the objects you wish to group.
2. Press and hold the Left Mouse Button, and drag out a rectangle around the objects to group. Important: You must ensure that the rectangle fully contains the complete area of each object.
3. Release the Left Mouse Button.
4. From the Automatic Menu that appears, select 'Group Contained Objects'.
5. Give the object a meaningful name in the Group Settings area on the Access Bar.



A single marquee outline will appear around all of the objects that have been grouped, indicating that the object is grouped and selected.

When you create a Compound object, the Object Settings box on the Access Bar changes, and the controls for Regions and Tools disappear. The only area on the Access Bar remaining is the Group Settings area. The Group Settings area contains the object Name field and two buttons: The 'Size, Position and Angle' button, and the 'Miscellaneous Properties' button.

Ungrouping Objects

To ungroup a set of grouped objects

1. Select the Compound object you wish to ungroup.
2. Click once with your Right Mouse button to bring up the Context Menu.
3. From that menu, select 'Object Management' and then 'Ungroup' from the Flow Through Menu.

It is possible to group a number of objects, and then group them again with other objects. When ungrouping these objects, keep in mind that the 'Ungroup' function can only ungroup one grouped layer at a time and you may have to ungroup more than once to free all the objects or reach the one you need.

Aligning Objects

The 'Align Objects' command makes page layout in Photo>Graphics easy. Rather than moving objects by dragging them with the mouse and trying to line them up by eye, simply select the objects you wish to position, and choose the desired alignment within the rectangle that contains the objects.

To align two or more objects

Contain the objects within a rectangle by holding down the Left Mouse Button and dragging the mouse to form a rectangle around them. The rectangle must be drawn to allow for the desired position in Edit action mode.

1. Once you have contained the objects this way, release the Left Mouse button.
2. From the menu that appears select 'Align Contained Objects'. Next choose the alignment option you wish to apply to the objects. These options are detailed in the following table.



Alignment Option	Description
Center	Objects will appear in the exact center of the rectangle that contains them.
Center Vertically	The center point of all selected objects will be lined up vertically wherever they currently appear in the rectangle that contains them.
Center Horizontally	The center point of all selected objects will be lined up horizontally wherever they currently appear in the rectangle that contains them.
Left Justify	Selected objects will be flush on the left side of the rectangle that contains them.
Right Justify	Selected objects will be flush on the right side of the rectangle that contains them.
Bottom Justify	Selected objects will be flush on the bottom of the rectangle that contains them.
Top Justify	Selected objects will be flush on the top of the rectangle that contains them.

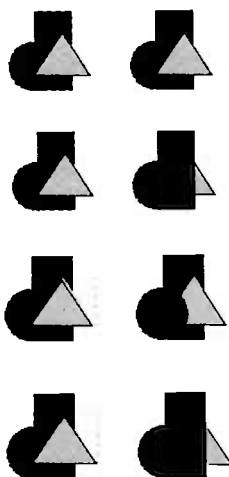
Changing Object Order

When you add a new object to the Project you are working on, it will automatically be positioned on top of any other objects you already have on your workspace. The order in which objects appear is not always evident. For example, if you create a new object that does not overlap another, it is not evident that the new object is at the top of the layering order. If you move that new object over one of the others on the Workspace, then it will appear to be on the top of the previously created object(s).

It is often necessary to change the order in which objects appear, specifically if you are trying to achieve a layered effect or just wish for larger objects to appear behind smaller ones.

To change object order

1. Select the object you wish to reorder in Edit action.
2. Click once with the Right Mouse button.
3. From the menu that appears, select 'Object Order & Position'. Next choose the ordering position you wish to apply to the selected object.

**Pull Forward** (Ctrl+W)

Moves the selected object forward one position in the object order.

Pull to Front (Ctrl+F)

Moves the selected object to the front of the object order, placing it on top of all other objects on the workspace.

Push Backward (Ctrl+K)

Moves the selected object backward one position in the object order.

Push to Back (Ctrl+B)

Moves the selected object to the back of the object order, placing it beneath all other objects on the workspace.

Manipulating Objects

When creating projects in Photo>Graphics, it is important to have the freedom and control necessary to properly position and size every object. Each object in Photo>Graphics can be moved, rotated, skewed, flipped and resized for the perfect page layout — even when they are grouped together with other objects!

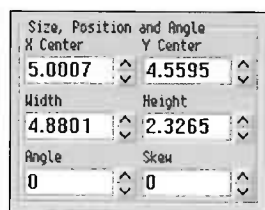
Moving Objects

Every object can be moved to any position on your Workspace. This can be accomplished by either dragging it from one place to another using your mouse or you can move it by the slightest co-ordinate increment from within the Object Settings dialog on the Access Bar.

**To move an object freely, using the mouse**

1. Select the object you wish to move.
2. Place your mouse pointer over any part of the object to be moved. The mouse pointer will change to a four-headed arrow (this is called the 'Move pointer').
3. Press and hold the Right Mouse button and at the same time, move your





mouse toward the area that you would like the object to be located on your Workspace.

To move an object using co-ordinate increments

1. Select the object you wish to move.
2. Press the 'Object Size, Position and Angle' button in the Object Settings area on the Access Bar. Here you can enter numerical co-ordinates for the horizontal and vertical position of the center of the object. It is possible to move an object by the slightest amount by entering a number just higher or just lower than the co-ordinates already assigned to that object.

Rotating Objects

HINT: If you change your mind about manipulating an object, and are in the middle of performing the action you can cancel the operation any time by clicking on the Left Mouse button while still holding down the Right Mouse button (or vice versa). This will only work if you have not completed the task of manipulating the object.



Every object created in Photo>Graphics is positioned at an angle that can be changed at any time. The angle of an object is a rotation in degrees that it has undergone in order to change its appearance. A newly created object has a default angle valued at zero, until it is rotated.

Rotating an object can be done either 'freely' or by assigning it an exact rotation value.

To rotate an object freely, using the Mouse

1. Select the object you wish to rotate.
2. Move your mouse pointer to one corner of the object. Notice that the mouse pointer changes to a 'Rotate' pointer.
3. Press and hold the Right Mouse button when the Rotate Pointer is active.
4. While still holding down the mouse button, move the mouse in the direction you wish to rotate the object.

To rotate an object to a specific rotation value (angle)

1. Select the object you wish to rotate.
2. Press the 'Object Size, Position and Angle' button in the Object Settings area on the Access Bar. Here you can enter a numerical value for the angle to rotate the object. It is possible to rotate an object by the slightest amount by entering a value just higher or just lower than the angle already assigned to that object.

Skewing Objects



Regular



Skewed

The skew of an object is the amount of slant or shear applied to the object on the horizontal or vertical axis. A newly created object has a default skew valued at zero.

Skewing an object can be done either 'freely' or by assigning it an exact adjustment value for one or both of the X or Y axis values.

Adding skew to an object freely, using the mouse

or



1. Select the object you wish to skew.
2. Move your mouse pointer to a straight edge of the object boundary (place the mouse directly over the marquee outline of the selected object). Notice that the mouse pointer changes to a 'Skew' pointer.
3. Press and hold the Right Mouse button when the Skew Pointer is active.
4. While still holding down the mouse button, move the mouse in the direction you wish to skew the object.

To skew an object to a specific value (number of degrees)

1. Select the object you wish to skew.
2. Press the 'Object Size, Position and Angle' button in the Object Settings area on the Access Bar. Here you can enter a numerical value for the angle to which the object will be skewed. It is possible to skew an object by the slightest amount by entering a value just higher or just lower than the angle already assigned to that object.

Mirroring (Flipping) Objects



You can 'flip' any object on your Workspace to make it look like a mirrored reflection of the original.

To mirror an object using the mouse

1. Select the object you wish to mirror, or flip.
2. From the Object Settings area on the Access Bar, press the 'Miscellaneous Properties' button and ensure that the object is set to 'Fixed Aspect'.
3. Move your mouse pointer to a vertical or horizontal boundary opposite the edge that will serve as a 'pivot edge' for the 'flip'. When your mouse pointer is over the marquee outline boundary, it will change to a 'Resize' pointer (see the *Resize* topic below for an example of the Resize pointer).
4. Press and hold the Left Mouse button while moving your mouse over the center of the object. Continue past the 'pivot edge' of the object until you have mirrored the object and achieved the correct size.

To ensure that a mirrored object maintains its original size and/or position, make note of its dimensions in the 'Size, Position and Angle' dialog within the Object Settings area on the Access Bar before manipulating it. After the object has been mirrored, re-enter these values into the same dialog.



Resizing Objects

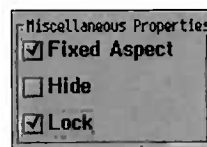
Any object in TrueSpectra Photo>Graphics can be stretched, or re-sized, to change its physical appearance. You can resize objects to make them tall, short, fat or thin. You can do so freely, using the mouse, or you can assign height and width values to the object that will determine its appearance.

When an object is stretched or resized freely, using the mouse, it is possible to stretch either the height or width of the object independently. It is also possible to resize both the height and the width at the same time.

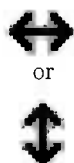


Note: Grouped objects and objects that contain bitmap images are, by default set to 'Fixed Aspect' object constraints.

When you want to resize an object, but don't want to distort the appearance of it (meaning you don't want the object to look 'stretched' out of proportion) it is important to set the constraints of that object to 'Fixed Aspect'. When the object is set to 'Fixed Aspect', both the height and width of the object will resize to keep the image you are working with looking proportional, as it is made larger or smaller than the original. This is an important feature when you are resizing bitmap images and grouped objects.



To resize an object freely, using the mouse (height or width)



1. Select the object you wish to resize.
2. Move your mouse pointer to one straight edge of the object boundary (place the mouse directly over the marquee outline of the selected object). Notice that the mouse pointer changes to a 'Resize' pointer.
3. Press and hold the Left Mouse button when the Resize pointer is active.
4. While still holding down the Left Mouse button, move the mouse in the direction you wish to stretch the object.

To resize an object freely, using the Mouse (height and width)



1. Select the object you wish to resize.
2. Move your mouse pointer to one corner of the object boundary. Notice that the mouse pointer changes to a 'Rotate' pointer. Don't be confused by this pointer, you can still stretch the object using it.
3. Press and hold the Left Mouse Button when the Rotate pointer is active.
4. While still holding down the Left Mouse button, move the mouse diagonally in the direction to where you wish the object to be resized (move toward the center of the object to make it smaller and away from the center to make it larger).

Hint: This method is used to effectively create circles from ellipses, and squares from rectangles.

To resize an object to specific height and width values

1. Select the object you wish to resize.
2. Press the 'Object Size and Position' button in the Object Settings area on

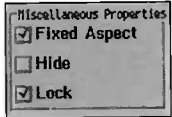
the Access Bar. Here you can enter a numerical value for both the height and width of the object.



To maintain aspect ratio (setting object constraints)

1. Select the object that you wish to resize.
2. Press the 'Miscellaneous Properties' button in the Object Settings area on the Access Bar. Here you can use your mouse to check 'Fixed Aspect'. This will allow you to resize the object you have selected as well as keep the contents of the object in the exact proportion as the original object.

Locking Objects



Note: Locked single objects cannot be grouped.

The option of locking objects or groups on your workspace is provided to protect them from additional movement or manipulation once you have achieved the arrangement you desire.

The 'Lock' object feature for a selected object or group is found in the 'Miscellaneous Properties' button in the Object Settings area and the Group Settings area of the Access Bar.

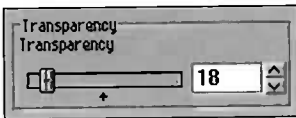
Adjusting Object Transparency

All objects in Photo>Graphics can be assigned a level of transparency. By making an object more transparent, it is possible to 'see through' layers of objects to underlying ones.

To adjust the transparency of an object

1. Select the object that will be made more transparent.
2. Press the Transparency button on the Object Settings area of the Access Bar. This will bring up a Transparency Settings dialog.
3. Move the transparency slider to achieve the level of transparency desired.

A 100% transparency setting will make an object completely invisible while 0% transparency setting will make an object completely opaque.



Hint: If you click on the background area of the slider control with the Right Mouse button, the slider will 'jump' to that position.



Duplicating and Deleting Objects

Duplicating, copying and deleting objects are some of the most basic functions that are used when you are creating projects in Photo>Graphics.

Like many of the other functions in Photo>Graphics, there is more than one way to perform each of these operations. In fact, the end result of both copying and duplicating an object is virtually the same. The difference is in the method used to perform the operation, as well as the size and position of the replicated object.

Duplicating and Copying Objects

When the Copy command is used to replicate an object, the new object must be 'pasted' into the Workspace. A designated size and position for the new object is defined by dragging out a rectangle on the Workspace, similar to the method used to create a brand new object.

When an object is duplicated, an exact replication is generated and placed directly on top of the original image. It has to be moved away from the original, or the tool has to be changed in order for the duplicated object to be detected visibly.

One advantage in choosing to 'Duplicate' rather than 'Copy and Paste' is that you can assure accuracy when you want to apply an effect like Grayscale to a photograph within a collage, but do not want any of the other surrounding images to be affected. In this case you need a duplicate object for the Grayscale tool with the exact size and position as the original image.

To copy an object

1. With your mouse, select the object you wish to copy.
2. Bring up the Context Menu by clicking once with the Right Mouse button.
3. From the menu that appears, select 'Clipboard', then 'Copy'.

To paste an object

1. Press and hold the Left Mouse button while dragging your mouse to form a rectangle on your Workspace.
2. Once you have the rectangle drawn, release the Left Mouse button.
3. From the Automatic Menu that appears, choose 'Paste from Clipboard'.

To duplicate an object

1. With your mouse, select the object you wish to duplicate.

2. Bring up the Context Menu by clicking once with your Right Mouse button.
3. From the menu that appears, select 'Duplicate' from the 'Object Management' command.

Deleting Objects

IMPORTANT: There is no 'undo' command in Photo>Graphics. If you delete an object that has not been previously saved, it cannot be recovered. If you think you might need an object later, check its hide box or drag it to the side temporarily.

There are two methods for deleting an object from the Workspace in Photo>Graphics.

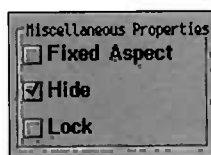
To delete an object using the Delete Key on the keyboard

1. Select the object you wish to delete by clicking on it once with your Left Mouse button.
2. Press the 'Delete' key on your keyboard.

To delete an object using the Context Menu

1. Select the object you wish to delete by clicking on it once with your Left Mouse button.
2. Click once with your Right Mouse button to bring up the Context Menu.
3. Choose 'Object Management' and then 'Delete' from the Flow Through Menu.

Hiding Objects

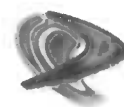


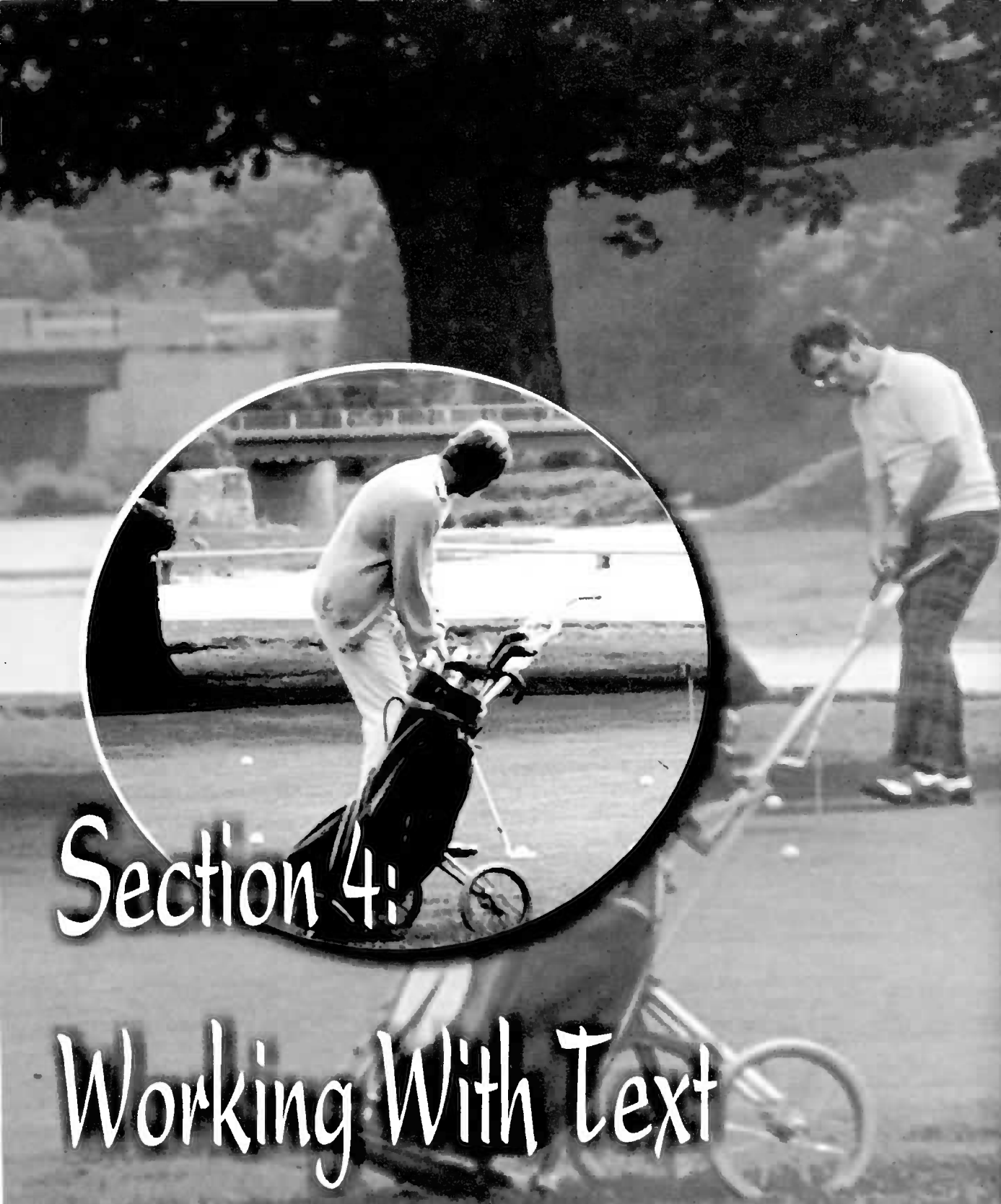
If you are working on a project and want to visualize what the project would look like without a particular object, use the 'hide' command. This feature allows you to make an object completely invisible and makes it easier to compare how a Project will appear with or without a particular object.

To hide an object

1. Select the object or group you wish to hide by clicking on it once with your Left Mouse button.
2. In the Object Settings area on the Access Bar, press the 'Miscellaneous Properties' button.
3. Select the box for 'hide' by clicking on it once with your Left Mouse button.

To make the object reappear, simply follow the same steps and deselect the 'hide' box.





Section 4:

Working With Text

Text Regions can be added to any project, and all of the tools are available as fills for text Regions. A text Region combined with any tool is an object, and behaves just as all other objects do. They can be moved, skewed, rotated, layered, mirrored and so on.

Choosing a Text Region

There are two types of Text Regions to choose from in Photo>Graphics: Headline or Block text.

About Headline Text

Headline Text Regions automatically scale text to fit within the Region boundaries. Multiple lines of text can be generated using the 'Enter' key to create a hard carriage return. When one line of text is longer than another, all text lines in the Region can be scaled equally in width to accommodate the Region boundaries. This makes a very effective headline for projects.

About Block Text

Block Text Regions scale text to fit within the specified width of the object, and automatically wrap the text of the object. As the text is wrapped to the next line, the point size of the existing block of text is adjusted to accommodate any extra additions. This creates a continuous flow of text, unlike the Headline Text Region where you have to enter a hard carriage return to create lines of text.

Creating Text Objects

To create a text object

1. Press the object 'Create' button on the Power Panel.
2. Choose either the Headline Text or the Block Text Region and a Tool that you wish to use to create the new object.
3. Move your mouse pointer to the area on your workspace where you wish to place one corner of your object.
4. Press and hold the Left Mouse button while dragging your mouse to create the approximate size of your object. When you release the Left Mouse button, the text object will immediately appear in your Workspace.
5. Give the object a name in the Object Settings area on the Access Bar.

When a new text object is created, Photo>Graphics inserts the word 'Headline' in a Headline Text Region, and the word 'Paragraph' in a Block Text Region so that you can identify the new object. You can change the text, the font and the line spacing of the text from within the appropriate Text Region area on the Access Bar at any time when it is selected.

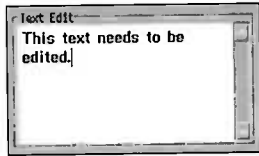


Changing Text Objects

To change the contents or characteristics of text in a Headline or Block Text Region, click on the appropriate feature button in the Region area of the Access Bar.

To edit text within a Text Object

1. Select the object that contains the text you wish to change.
2. Press the 'Text Edit' button in the Region area on the Access Bar.
3. In the dialog box that appears, remove the old text by highlighting it with your mouse and pressing the 'Delete' key.
4. Type in the text that you would like to appear in your project. As you key new text into a Text Object, it is reformatted automatically on the workspace to fit within the boundaries of your original object. When using a Headline Text Region, you must use the 'Enter' key to move to a new line, while in a Block Text Region the lines wrap continually based on the width of the column.



To change the font of a Text Object

1. Select the object that contains the text font that you wish to change.
2. Press the 'Font Selection' button in the Region area on the Access Bar.
3. In the dialog box that appears, select a font type from the list of available fonts.

The fonts that appear on the list in Photo>Graphics are Type 1 fonts installed on your OS/2 System. To add new fonts to the Photo>Graphics list, you must install using the OS/2 Font Installer. See your OS/2 Manual or On-line Help for further instructions.

Justification

Justification determines the alignment of single or multi-line text within the specified Region. The options available to you are:

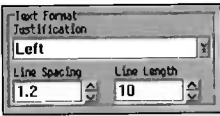
- Left** Justifies all text to the left border of the text Region;
- Right** Justifies all text to the right border of the text Region;
- Center** Centers all text between the left and right borders of the text Region;
- Full** Spaces all text equally to the left and right borders of a text Region.

Line Spacing is the distance between lines and is a factor of the font height. For example a line spacing of 1.2 means that lines of text will be separated by a distance equal to 20% of the font height.

Line Length

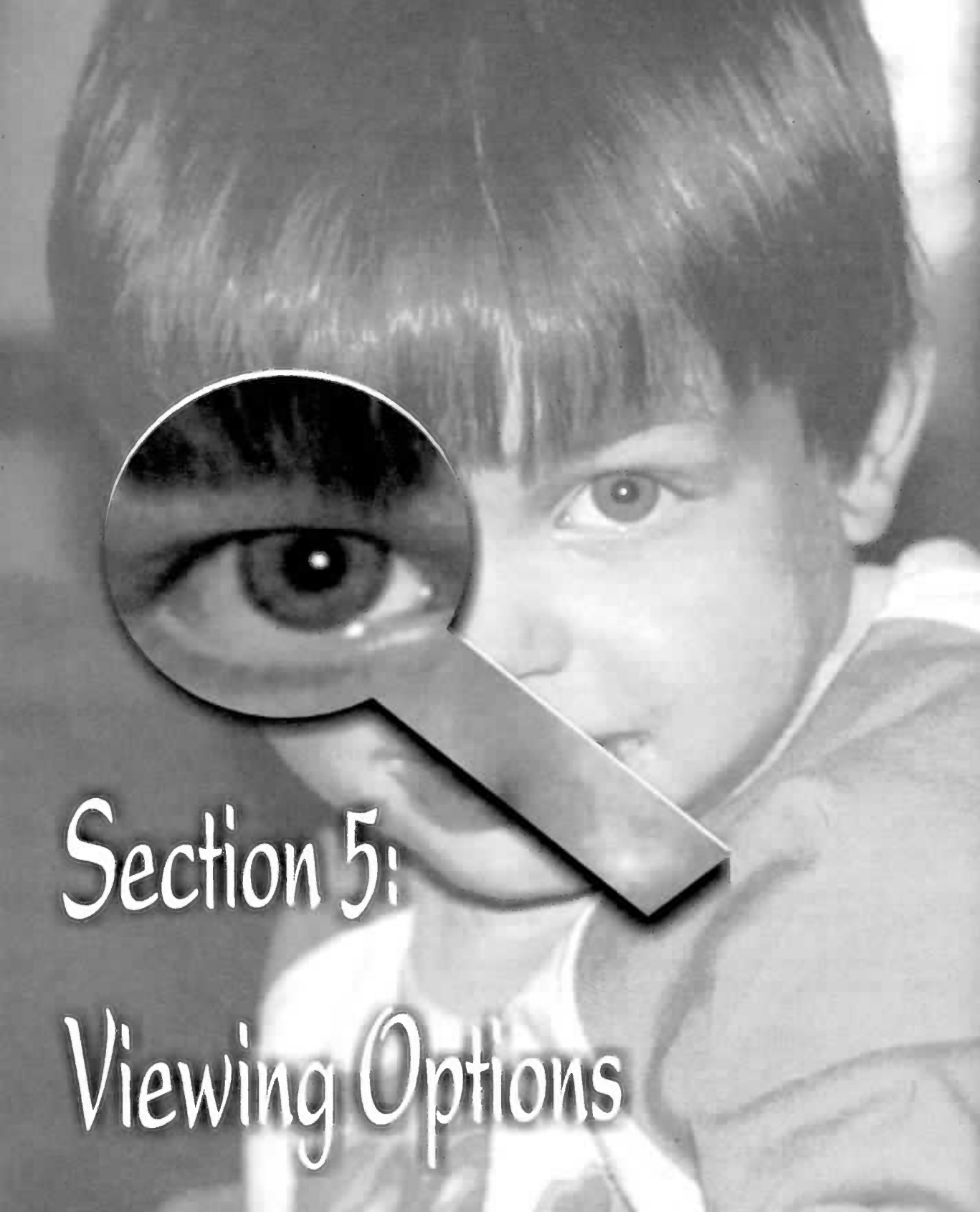
Line Length is only applicable when you are working with Block Text Regions. The length of a line of text is measured in units of “M’s” for the font that you specify. That is, the final length of the line of text is the actual width of a capital letter “M” in the chosen font, times the multiple you select in the Line Length field.

Line Spacing



Changing the justification or line spacing of a Text object

- 1. Select the object that contains the text you wish to change the justification or spacing of.
- 2. Press the 'Text Format' button in the Region area on the Access Bar.
- 3. Select the appropriate options from the dialog box.



Section 5:

Viewing Options

Using Pan and Zoom

As mentioned numerous times throughout this User Guide, every object you create using Photo>Graphics is *resolution-independent*. This means that your projects can be viewed as close up as you wish. Photo>Graphics, using the ColorWave render engine, redraws the image at the best resolution possible. There is no concept of pixel-editing since the image is not constructed from pixels. Zooming and Panning allow you to view an entire Project, or any portion of it.

There are a number of helpful viewing options available in Photo>Graphics that are outlined in this section. Whenever you select a viewing option, you are selecting a Zoom function.

Zooming In

Hint: You can also Zoom in on an area from the object Edit mode by pressing and holding the Shift key while dragging out a rectangle around a selected area with the Left Mouse button.

Zooming in on a selected object will fill your Workspace with that object for optimal viewing. Zooming in on a select area magnifies the specified zoom area and allows you to edit images/objects with precision.

To Zoom in on an individual object

1. In the object 'Edit' action mode, select the object you wish to view close up.
2. Click once with the Right Mouse button to bring up the Context Menu.
3. From this Menu, choose 'Zoom' and then 'Zoom to fit Object' from the Flow Through Menu.

To Zoom in on a selected area

1. In the object 'Edit' action, while holding down the Left Mouse button, drag out a rectangle around the area that you wish to zoom in on .
2. When you have the area contained within the rectangle, release the mouse button.
3. From the menu that appears, select 'Zoom In'.

Zooming Out

After Zooming in and making fine adjustments to your project, it is likely that you will want to go back and view your work on the full canvas so that you can finalize the layout of your Project. The process of doing so is called 'Zooming out'.

Photo>Graphics enables you to Zoom out in increments of 200% at a time, or you can Zoom all the way back to the original Output Area of your Project.



Alternately, you can Zoom out far enough to see all objects contained on the Workspace.

To Zoom out 200%

1. In the object 'Edit' action mode, click once with the Right Mouse button. The Context Menu will appear.
2. From this menu choose 'Zoom', and then 'Zoom out 200%'. You may repeat these steps until you have obtained the view of your work that you desire.

To view the entire workspace (Zoom to fit output area)

1. In the object 'Edit' action mode, click once with the Right Mouse button. The Context Menu will appear.
2. From this Menu select 'Zoom', and then 'Zoom to fit output area' from the Flow Through Menu.



To view all objects (Zoom to fit all objects)

1. In the object 'Edit' action mode, click once with the Right Mouse button. The Context Menu will appear.
2. From this Menu select 'Zoom', and then 'Zoom to fit all objects'.

Panning

When zoomed in, it is often useful to Pan around the Workspace in order to view objects around the zoomed area without having to select a 'Zoom out' function.

To Pan around the Workspace

1. While in the object 'Edit' action, press and hold the 'Shift' key.
2. Press the Right Mouse button and drag the Workspace in the direction desired.

Hint: You never have to wait for Photo>Graphics to finish rendering the current image before you Pan or Zoom again.

Each time you change the view, Photo>Graphics will immediately restart rendering at your the desired magnification level.

You can use the 'Pan & Zoom' action mode to quickly maneuver your way around your project, viewing small areas, panning and zooming back again with ease.

There are two ways of Zooming in using the 'Pan & Zoom' action mode. You can either draw a rectangle around the area you wish to view close up, or you can simply click with the Left Mouse button to automatically Zoom in by 200%.

To Zoom in using the Pan & Zoom action mode

1. While in the 'Pan & Zoom' action mode, press the Left Mouse button and drag a rectangle around the area that you would like to view close up. Photo>Graphics will immediately begin rendering the magnified area.

or

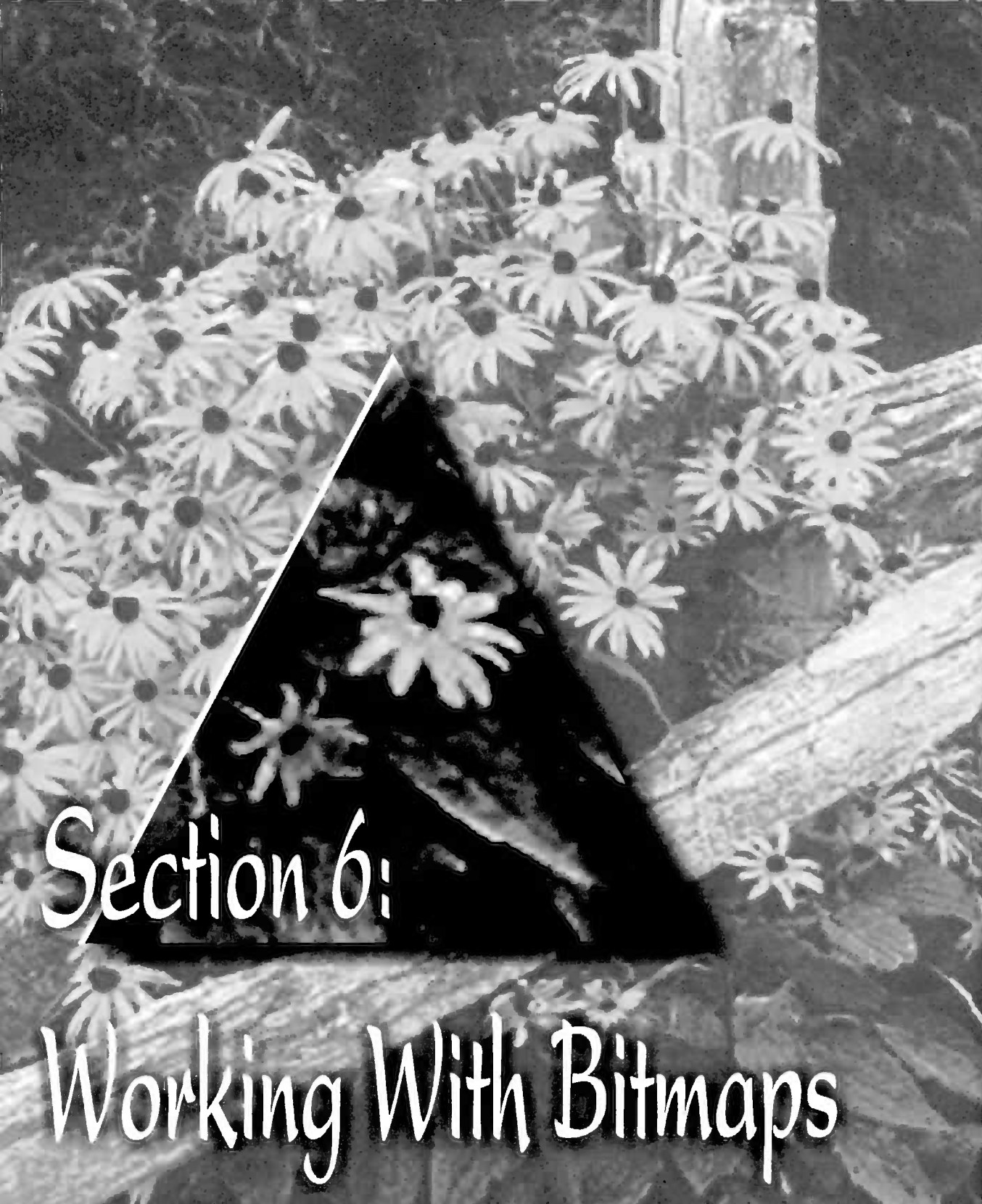
2. While in the 'Pan & Zoom' action mode, click the Left Mouse button on the center point of the area that you would like to view close up. Photo>Graphics will immediately begin rendering the magnified area.

To Zoom out using the Pan & Zoom action mode

1. While in the 'Pan & Zoom' action mode, click the Right Mouse button on the center point of the area that you would like to view farther out. Photo>Graphics will shrink the image by 200% and center it on your chosen point.

To Pan using the Pan & Zoom action mode

1. Press the Right Mouse button and drag the Workspace in the direction desired.



Section 6:

Working With Bitmaps

Images and Bitmaps

Note: At no time will the original bitmap image be permanently altered by Photo>Graphics. This allows unlimited experimentation with different effects.

A Bitmap in Photo>Graphics is considered a fill Tool (see *Section 2: Creating Objects*) because it can be applied to any Region and will create a visible object. This means that you can easily use bitmaps in text, line draw or any shaped Region and also means that, like all objects, bitmaps can be stretched, skewed, rotated, and mirrored.

Objects containing the bitmap Tool interact with other objects containing other Tools such as Contrast & Brightness, Emboss, Wave, Sharpen, Pixelate and Blur. This means that you can achieve an uncountable number of unique effects just by layering the appropriate objects. These Tools are described earlier in this Guide and you can find numerous examples of the creative effects that can be achieved using bitmap images in the *TrueSpectra Photo>Graphics Tutorial Guide*.

Loading a Bitmap

Bitmaps can be loaded in the following formats:

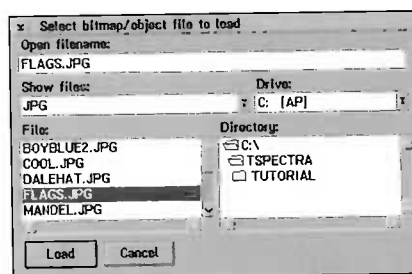
.JPG	Joint Photographic Experts Group images format (JPEG)
.PCD	PhotoCD
.BMP	OS/2 or Windows Bitmap
.GIF	Graphics Interchange Format
.TGA	Targa
.TIF	Tagged Image File Format (most implementations)

Because you will often be using bitmaps in Photo>Graphics, there are three ways available to load them into a Project:

To load centered automatically in the Workspace (Load Option 1)

1. Anywhere on the Workspace, click once with the Right Mouse button to bring up the Context Menu.
2. From this menu, select 'File' and then 'Load Bitmap'.
3. Choose the drive and directory that contains the bitmap image you wish to use from the dialog that appears. Double click on the file, or highlight it and choose 'Load'.
4. Name the object, which automatically uses a Rectangle Region, in the Object Settings area of the Access Bar.





To load into a specific area of the Workspace (Load Option 2)

1. When in Edit action mode, with the Left Mouse button held down, drag out a rectangle on the Workspace.
2. From the Automatic Menu that appears, select 'Load Bitmap'.
3. Choose the drive and directory that contains the bitmap image you wish to use from the dialog that appears. Double click on the file, or highlight it and choose 'Load'.
4. Name the object, which automatically uses a Rectangle Region, in the Object Settings area of the Access Bar.

To load into any specific Region (Load Option 3)

1. On the Power Panel, choose 'Create', select any Region and then select the Bitmap Tool.
2. Choose the drive and directory that contains the bitmap image that you wish to use from the dialog that appears. Double click on the file, or highlight it and choose 'Load'.
3. Alternately, if you have previously loaded one or more images, select the desired image from the list that appears on the Access Bar or choose 'Load' at the bottom of the list to load a new bitmap.
4. Name the object in the Object Settings area of the Access Bar.

Changing to the Bitmap Tool

The Tool of any selected object may be changed to Bitmap. In Edit action mode, simply select the desired object, and from either the pull-down list of Tools on the Access Bar or by using the buttons on the Power Panel, change the object's Tool to Bitmap.

In some cases when changing a Tool to Bitmap, you may be unable to recognize the selected bitmap. For example, if the Region was User Draw and you have drawn with thin lines, or if the transparency of the changed object is set very high.

Rectangular Cropping of a Bitmap



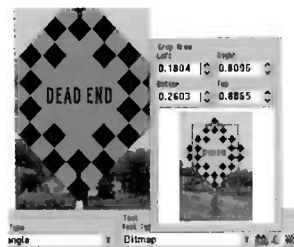
There are often occasions when you wish to use only part of the bitmap you have selected. In some cases, you simply want to adjust, or “Crop”, the rectangular area rendered by the Bitmap Tool. For example, you may have a snapshot of your family in a park, but the photographer was standing too far away and most of the picture is of trees and grass, not your subjects.

To crop a bitmap image

1. Select the object that contains the bitmap that you want to crop.
2. Press the ‘Crop Bitmap’ button located in the Tool area on the Access Bar.
3. In the Crop Area dialog that appears, draw a rectangle on the small representation of the bitmap containing the area you wish to crop. The area may also be moved by using the Left Mouse button.

Note: To keep a cropped image at the proper proportions (and not distorted), the ‘Fixed Aspect’ check box in the Miscellaneous Properties dialog in the Object Settings must be selected. To stretch an image, turn off fixed aspect ratio and either resize the object or re-crop the image in the Crop Area dialog.

The co-ordinate numbers on the Crop Area dialog indicate the area (in number of pixels) of the bitmap that will be displayed. Each co-ordinate relates to one pixel of the image vertically or horizontally.



The size of a selected area is changed by increasing or decreasing the co-ordinate boundaries. You may use the up and down arrow buttons to change the co-ordinates of the bitmap boundary until you have the desired portion of the bitmap contained or you may repeatedly redraw the crop rectangle while watching the result in the Workspace.

Irregularly Shaped Editing of a Bitmap

When you wish to use an irregularly shaped portion of a bitmap or fill in an irregularly shaped area of a bitmap, you must use the User Draw Region or, for complex cases, a Custom Region combined with a Custom Tool. For example, to select an individual person from a group, ensure that you have created an object with a User Draw Region and Bitmap Tool. For details on User Draw, please see Section 7. For an example of cropping a bitmap with User Draw, please see the *TrueSpectra Photo>Graphics Tutorial Guide*.

Tiling a Bitmap Image

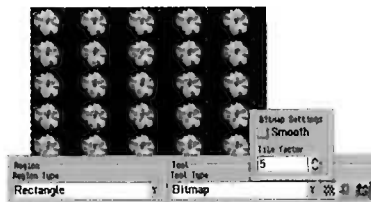
Interesting backgrounds and other fills are quickly achieved using a tiled bitmap image. When you Tile a Bitmap, you get the effect of multiplying the image, and laying the duplicates next to each other, filling the Region with copies of the original bitmap— like laying tiles in the bathroom. There are two ways of tiling a bitmap — automatic, and manual. The manual method is used when you have special requirements.

Automatic Bitmap Tiling



***Note:** You may also tile cropped portions of a bitmap — just use the crop dialog as above to specify the desired area of the original bitmap.*

A bitmap is tiled by specifying the number of times you would like the bitmap to be reproduced in a horizontal direction and vertical direction. This means that the total number of bitmap images to appear within the region is the horizontal number multiplied by the identical vertical number, or the square of the number you enter.



To create a tiled bitmap, click on the Bitmap Settings button in the Tool area on the Access Bar. Enter the number of times you wish to tile the bitmap image in the 'Tile factor' field. Your Object will now appear to contain multiple copies of the original bitmap.

Manual Bitmap Tiling

To manually tile a bitmap, create an object with a Custom Tool. Open the Tool window and within that work area, load your desired bitmaps or other objects to be tiled. Group all objects, rotate appropriately and make duplicates of the group placed in a tiled fashion.

A simplified form of the above procedure is handy when you want to make a diagonal or rotated tile of a bitmap. Just place the original bitmap in the Custom Tool work area and rotate it — then open its tile dialog from the Access Bar and tile the rotated bitmap. Resize the bitmap so that it covers the entire output area of the Custom Tool work area. Observe the results in your main Workspace. You will see that the Custom Tool effectively projects the rotated tile through your object's Region!

Smoothing a Bitmap Image

When a bitmap is originally scanned from a print or output from a digital camera, its series of pixels is defined and it is impossible to add more true detail to such an image. However, in the case of an enlargement where the original was created at a low resolution, it is possible to increase the visual effectiveness of a bitmap with "smoothing". Smoothing makes an enlarged bitmap look less pixelated and more natural by building new pixels between known, existing pixels. Placing an object with a Sharpen Tool on top of a smoothed bitmap can sometimes give pleasing results.



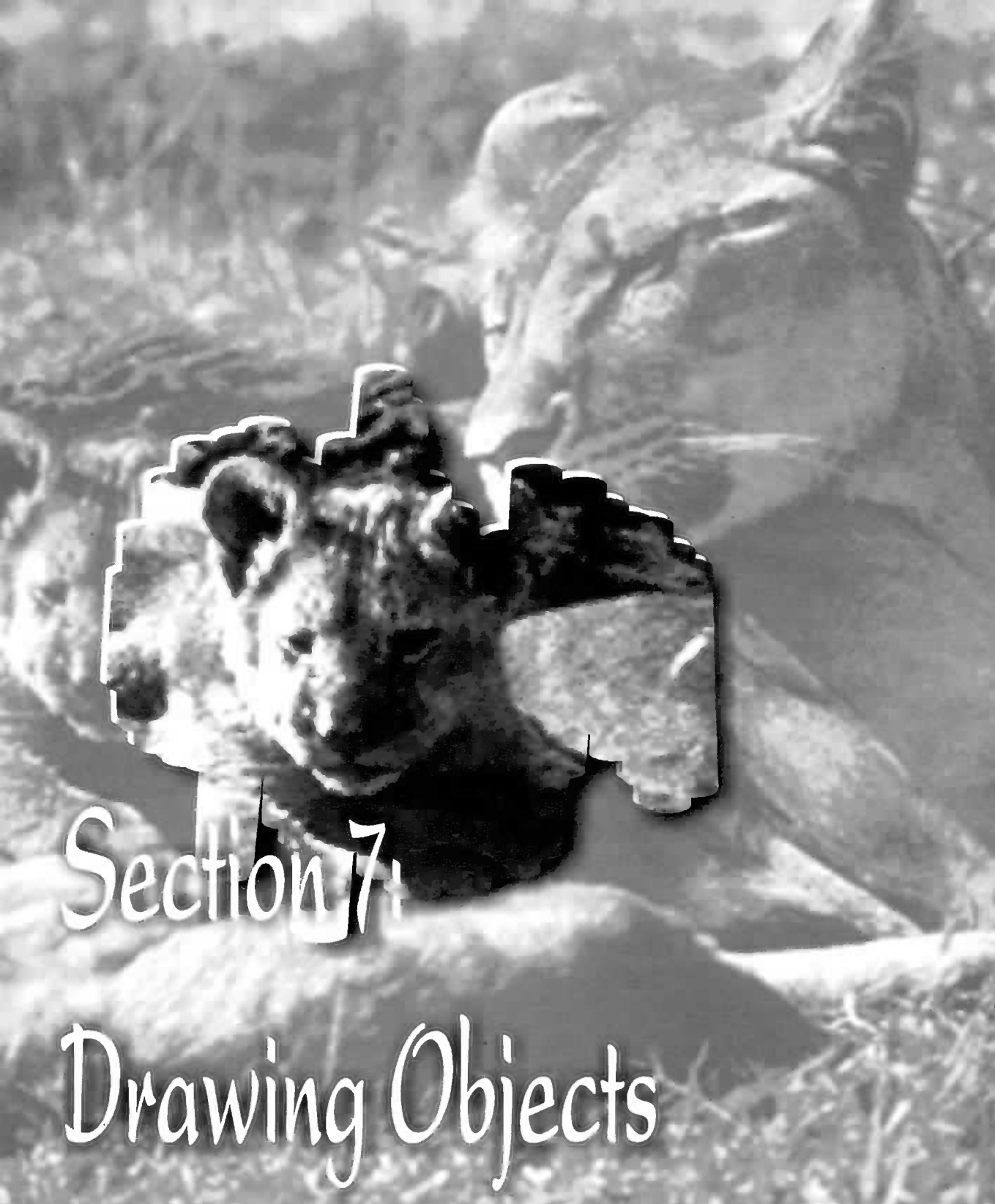
To activate the Smooth feature, select the Bitmap Settings button in the Tool area on the Access Bar. Enter a check mark in the check box next to the word 'Smooth'.

It is also possible to set all of the bitmaps in a project to Smooth at one time. This can be done by checking the Smooth Bitmaps option in the Project's Output Settings dialog.

Note: To enhance rendering performance on a system with a slower processor, do not smooth bitmaps until you are ready to output your final composition. Then select Smooth Bitmaps from the Output Settings dialog.

Bitmap Effects

Typically, objects containing Contrast and Brightness, Sharpen, Emboss or Blur Tools are placed over bitmaps to enhance their content depending upon application. These Tools are described in *Section 3: Creating Objects* of this User Guide. Examples can be found in the *TrueSpectra Photo>Graphics Tutorial Guide*.



Section 7:




Drawing Objects

Photo>Graphics incorporates three different methods of creating objects using User Draw Regions. These Vector Regions, combined with powerful image processing Tools provide users with an unparalleled range of capability for creating unique, and complex drawings.




Draw Regions function similarly to other Regions in Photo>Graphics — they can be manipulated freely, and can be filled with the assortment of tools available in the product. The three drawing features in Photo>Graphics are Line Draw, Freehand Draw and Roller Draw.

The method for creating a custom drawn object in Photo>Graphics is the same as that used to create all other objects. Simply choose a User Draw Region type and a Tool from the Power Panel, and you're ready to start! By either clicking or holding down the Left Mouse button on the Workspace, the User Draw Region type that you have selected becomes active, and the motion of the mouse determines the direction and the shape of the lines you draw.

When a User Draw Region type is selected from the Power Panel to create a new object, the mouse pointer changes to reflect the type of draw Region that will be created.

-  Line Draw Pointer
-  Freehand Draw Pointer
-  Roller Draw Pointer

Once an object has been created using one of the Draw Region types, it can be edited or reshaped by changing the position of the object's Control Points. When an object with a Draw Region is being edited, the mouse pointer again changes to indicate that it is in position to edit the Region shape.

-  Unselected Control Point Draw Pointer
-  Selected Control Point Draw Pointer
-  Move Control Point Draw Pointer



Stroke Mode vs. Fill Mode

Fill mode - the area enclosed by the path is filled
Stroke mode - only the path is filled
The Roller - draws different

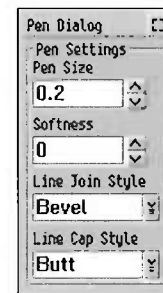
User Draw objects have two different modes of operation that radically affect their appearance: Fill Mode and Stroke Mode. In Fill Mode, the shape defined by the object's path is 'filled' by the Tool selected for the object. In Stroke Mode, the Tool only fills a narrow Region which follows the object's path. The appearance of the stroked area depends on the stroke attributes such as Line Width and Line Join.

Stroke Mode is usually used for diagrams, such as flow charts and bubble diagrams. Fill Mode is usually used for defining shapes, or cutting out portions of bitmaps.

Regions defined by the Roller Draw type are by default created in Fill Mode, while Regions defined by the Freehand and Line Draw Region types are set to Stroke Mode by default.

Pen Settings

When a User Draw Region type is selected from the Power Panel, the Pen Settings dialog appears prompting you to make some decisions about the drawing you are about to create.



Pen Size

The size of the pen determines the width of the lines drawn on the workspace and is measured in either inches, centimeters, points or pixels. To change the size of the pen, simply enter a new value into the numeric field.

Softness

To make lines appear less 'hard', increase the softness. Increasing softness causes the edges of the lines to appear more blurred.

Line Join Style

Choose from the list of Line Join styles to determine the appearance of the junctions of straight lines created in Stroke Mode of the User Draw Region.

Line Cap Style

Choose from the list of Line Cap styles to determine the appearance of the ends of paths created in Stroke Mode of the User Draw Region.

Once you have created an object using a User Draw Region type, all of these pen settings can also be changed while in the object 'Edit' action mode to change the appearance of the object.

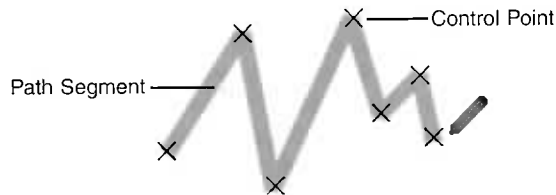
To change the Pen Settings of an existing User Draw Region type

1. Select the object containing the User Draw Region while in the object 'Edit' action mode.

Creating Objects Using the Line Draw Region Type

2. Press the User Draw Settings Button in the Region area on the Access Bar
3. Edits to the Region can be made on the dialog that appears.

When the Line Draw Region type is selected to create an object, the mouse pointer changes to a pencil. Start and end points of straight lines are established by clicking the Left Mouse button on the workspace. As these start and end points are created, Control Points are inserted along the path that is created.



To draw a straight line, or a series of straight lines

1. Press the object 'Create' action mode on the Power Panel.
2. Choose the Line Draw Region type, and Tool for the lines you wish to draw. The mouse pointer will change to the Line Draw pointer.
3. Move the mouse pointer to an area on the Workspace where you would like to start your line drawing, and click once with the Left Mouse button to identify the starting point for your path.
4. Move the mouse pointer in the direction for the position of the end point of that line on the Workspace. You will notice a 'rubberband' type line following your cursor.
5. When the line is the desired length and in the proper orientation, click once with the Left Mouse button again to end the line. If you wish to conclude your drawing here, click once with the Right Mouse button.
6. If you want to draw a second straight line that is connect to the first, simply move the mouse pointer to the position to end the next line, and press the Left Mouse button once to end that line. Continue this step until you have achieved the shape of the line draw object you desire.



Removing Straight Line Segments

As you are creating a line draw Region, it is possible to backtrack so that the last path segment can be removed. The backtracking operation can be performed successively to remove a number of line segments, in the order that they were created.

To backtrack and remove straight line path segments

1. While still in the process of creating the object detailed above using the Line Draw Region type, press and hold the Left Mouse button on the workspace.

2. Remove the last line segment created by clicking once with the Right Mouse button while the Left Mouse button remains pressed.
3. Click the Right Mouse button once for each line segment you wish to remove from the workspace.
4. When you have finished, release the Left mouse button and continue or conclude your line drawing.

Creating an Object Using the Freehand Draw Region Type

When the Freehand Draw Region type is selected to create an object, the mouse pointer changes and appears as a feather. Drawing freehand is done by pressing and holding the Left Mouse button while dragging the mouse pointer along the line you would like the Freehand path to follow. Photo>Graphics tracks the movement of the mouse pointer across the workspace and determines where Control Points should be placed along the created path. It is difficult to draw perfect straight lines and curves with a Freehand Region type, so each Control Point that is created has up to two Handles that can be used to shape and manipulate the drawn path.

To draw freehand lines and curves

1. Press the object 'Create' mode on the Power Panel.
2. Choose the Freehand Draw Region type and Tool for the path you wish to draw. The mouse pointer will change to the Line Draw pointer (it looks like a feather).
3. Move the mouse pointer to a point on the Workspace where you would like to start your freehand drawing.
4. Press and hold the Left Mouse button and begin dragging the mouse along the path for the drawing you wish to create.
5. To conclude drawing, simply release the Left Mouse button.



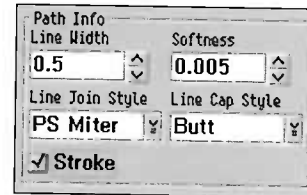
Creating an Object Using the Roller Draw Region Type

The Roller Draw Region type is used to create objects that fill large areas of the workspace by 'painting' out an area for a new object. When the Roller Draw Region type is selected to create an object, the mouse pointer will change to appear like a circle with a small dot in the middle of it. Like the Freehand Draw Region type, the Left Mouse button must be pressed and held down while dragging to create a drawn path.

Objects created by the Roller have one property that makes them stand apart from the two other Region types. Regions defined by the Roller are by default created in 'fill mode', while Regions defined by Freehand and Line Draw are both set to 'stroke' by default.

To fill areas with the roller

1. Press the object 'Create' action mode on the Power Panel.
2. Select the Roller Draw Region type button and a Tool for the area you wish to fill.
3. Move your mouse pointer to a point on the workspace where you would like to start your Roller drawing.
4. Press and hold the Left Mouse button and begin dragging the mouse along the path for the drawing you wish to create. To conclude drawing, simply release the Left Mouse button.



Editing User Draw Regions

When an object is created using any of the User Draw Region types, Photo>Graphics inserts Control Points along the path, which in turn creates path segments. Control Points along a path can be moved and manipulated in a number of ways to transform or reshape a drawn object. Editing the shape of an object created with a User Draw Region type is done by moving these Control Points, and the Handles that protrude from them (handles will only appear on Control Points that occur on curved lines). You can also radically change the shape of a User Draw Region by inserting or deleting Control Points.

Selecting Control Points



In order to edit a Control Point, it must first be selected. To select a Control Point, simply place the mouse pointer over the point (you know you are over the point when the Unselected Control Point Draw pointer appears). Click once on the Control Point with the Left Mouse button to select the point and make it 'active'. The Control Point will now appear as a gray square with the 'x' contained within.

A Control Point is manipulated by choosing items from the Selected Point Context Menu which is displayed by clicking the Right Mouse button anywhere on the Workspace when the Control Point is selected.

Tip: For better control when moving Control Points, Zoom in on the Control Point and the area surrounding it.

To move a Control Point

1. Press the object 'Edit' action mode on the Power Panel.
2. Select the object containing the User Draw Region, and then select the Control Point that you wish to move.
3. Press and hold the Right Mouse button. When you do this, the Selected Control Point Draw pointer will change to a Move Control Point Draw pointer (a closed claw). When the claw is closed, you can drag your mouse to the position on the workspace where you wish to move the Control Point.
4. When you have reached the desired position, release the Right Mouse button.

To delete a Control Point from a draw Region

1. Press the object 'Edit' action mode on the Power Panel.
2. Select the object containing the Draw Region, and then select the Control Point that you wish to delete.
3. Click once with the Right Mouse button to display the Selected Point Context Menu.
4. Choose 'Delete'.

Control Points can also be split to break a path into two shorter paths or merged together to join the ends of two paths into one longer path.

To split a Control Point

1. Select the Control Point you wish to split.
2. Click once with the Right Mouse button to display the Selected Point Context Menu.
3. Choose 'Split' from the menu that appears.

To merge two control points within a User Draw object

1. Select one of the two Control Points that you wish to join.
2. Click the Right Mouse button to display the Selected Point Context Menu.
3. Choose 'Join' from the menu that appears.

Editing the Path of a User Draw Region

Just as Control Points can be removed from User Draw Region paths to change the appearance of an object, they can also be added. To add a Control Point to an existing path, you must first select the area of the path that will serve as the insertion point.

It is also possible to convert a path segment from straight to curved, and from

curved to straight. In order to perform this action, it is first necessary to select the path segment that you wish to convert.

To select a path segment

1. With the object containing the User Draw Region selected, move the mouse pointer to the area on the line segment that you wish to select.
2. When the mouse pointer changes to a small arrow with a small circle above it, the path segment is selected.

Once the line segment is selected, it can be manipulated in one of three ways. A selected line segment can be curved, straightened or a Control Point can be inserted at the selected position. To display these options, click once with the Left Mouse button while the Path Selection Mouse pointer is active to display the Path Segment Edit Menu.

To curve a straight path segment

1. Select the path segment that you wish to curve.
2. Click once with the Left Mouse button to display the Path Segment Edit Menu.
3. Choose 'Convert to Curve' from this menu.

Photo>Graphics will convert your straight line segment to a curved line segment and add handles to the Control Points on both sides of that line segment.

To straighten a curved path segment

1. Select the path segment that you wish to make straight.
2. Click once with the Left Mouse button to display the Path Segment Edit Menu.
3. Choose 'Convert to Straight Line' from this menu.

By straightening a curved path segment, Photo>Graphics actually removes the handles from the Control Points at each end of the path segment that has been converted.

To add a new control point to a path segment


1. Select the path segment that you wish to add a Control Point to.
2. Click once with the Left Mouse button to display the Path Segment Edit Menu.
3. Choose 'Add Control Point' from this menu.

Continuing the Path of a User Draw Region


When creating detailed, or complex User Draw Regions, it is often necessary to first partially define the Region, and then continue in a new location on the Workspace. This can be accomplished by creating a path using any of the User Draw Regions, and then resuming editing later. This particular method of editing Regions even allows you to combine two or more of the User Draw Region types to complete a single object!

Another advantage of this method for editing User Draw Regions, is that it allows you to 'erase' parts of objects. For example, erasing portions of objects allows you to trace shapes from Bitmap images and fine tune any of the User Draw Regions.


To continue a connected Line or Freehand Draw path

1. Choose either the Line or Freehand Draw Region type from the Power Panel that you wish to continue drawing with.
-  2. Press and hold down the 'Shift' key on the keyboard.
3. Move the mouse pointer to the point on the Workspace where you want to continue drawing.
4. Continue drawing according to the method outlined earlier for creating the type of User Draw Region you desire. The new path created will be connected to the path created previously.

To continue an unconnected Line or Freehand Draw path

1. Choose either the Line or Freehand Draw Region type from the Power Panel that you wish to continue drawing with.
-  2. Press and hold down the 'Ctrl' key on the keyboard.
3. Move the mouse pointer to the point on the Workspace where you want to continue drawing.
4. Continue drawing according to the method outlined earlier for creating the type of User Draw Region you desire. This will create a new path within the object that is completely disconnected from the first path.

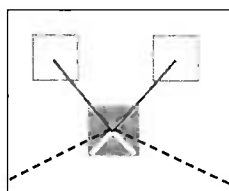
To continue painting a Roller Draw path

1. Choose the Roller Draw Region type from the Power Panel.
-  2. Press and hold down the 'Ctrl' key or the 'Shift' key on the keyboard (either will work).
3. Move your mouse pointer to the point on the Workspace where you want to continue painting out an area with the Roller.
4. Continue painting using the Left Mouse button as outlined earlier for creating a Roller Draw path.

To erase part of a Roller Draw path

1. Choose the Roller Draw Region type from the Power Panel.
2. Press and hold down the 'Ctrl' key on the keyboard.
3. Move the mouse pointer to the point on the Workspace where you want to erase an area with the Roller.
4. Press and hold the Right Mouse button while dragging the mouse over the area of the object that you wish to erase.

Adjusting the Appearance of Curves



As mentioned earlier in this section, Control Points that are on curved lines path segments have 'Handles'. These Handles are used to adjust the orientation and appearance of the curve, and will only appear when the Control Point that they are attached to is selected. Handles do not have to be selected to be moved, they are selected as soon as the mouse pointer is placed over top of them and the Selected Control Point Draw pointer appears. At this time, they can be moved using the Right Mouse button.

Handles can also be adjusted automatically by Photo>Graphics when specified by the user. To smooth or cusp a curve that passes through a Control Point, display the Selected Point Context Menu and select the appropriate option.

To edit path segments by moving Handles

1. Select the Control Point that is the source of the Handles you wish to move.
2. When the Control Point has been successfully activated, the mouse pointer will change to the Selected Control Point Draw pointer, and the Handles will become visible. You will only see Handles of a Control Point when that Control Point is active.
3. Move the Handle by placing the mouse pointer over the Handle to be moved (still the claw), and press and hold the Right Mouse button. By pressing and holding the Right Mouse button, the mouse pointer will change to the Selected Control Point Draw pointer and you will 'grab' the Handle.
4. While still holding down the Right Mouse button, move the Handle to the desired position.

A black and white photograph of a tropical beach scene. In the foreground, there are palm trees. In the middle ground, a sailboat is on the water, and a thatched hut is on the right. A large, stylized circular graphic is overlaid on the image, containing a smaller image of the same scene. The text "Section 8:" is written in a white, serif font with a drop shadow, positioned over the lower part of the circular graphic.

Section 8:

Saving Your Work

Tip: Check the TrueSpectra Web site for the availability of '.GDO' and '.ORC' collections and bitmap images — www.truespectra.com.

Once you have created a Project or intricate object, you may wish to save it so that you can show your work to others, or use it again in the future. Photo>Graphics Projects and objects ("ColorWave Clipart") are saved in special formats with the extensions '.GDO' and '.ORC' respectively. These unique related file formats store your work in a resolution independent, device independent and compact format. They take far less space on your hard drive than you might expect and do not waste space by resaving bitmaps already on your computer or CD-ROM collection.

Saving Projects in ColorWave Format ('.GDO')

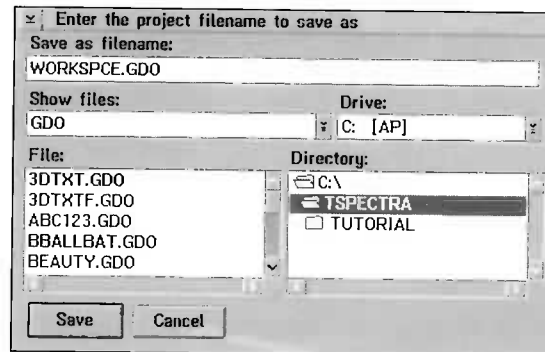
Note: Projects will be saved by default with the .gdo filename extension.

Saving Projects and Objects

A Project can be saved for future use or completion if it needs a final touch. Projects saved in Photo>Graphics are saved with the file extension .GDO. As noted above, bitmap images are not saved together with the project. Instead, a reference is saved within the .GDO file that instructs the ColorWave programs to go out and look for any bitmap files that have been used to make up the final project. This process saves space on your hard drive, by using only one copy of a bitmap for many different projects, instead of duplicating the file every time it is saved in a Photo>Graphics Project.

To save a project as a Photo>Graphics .GDO file

1. Click once with your Right Mouse button to bring up the Context Menu.
2. From this menu, choose 'File', and then choose 'Save Project'.
3. Choose the drive, directory and file name you desire, then press 'Save'.



Saving Projects as Bitmap Images

Note: Remember to use the Output Settings dialog to set the resolution of the image to be 'Save Rendered'. If you have a high resolution (ie. 300dpi) setting with a large area, be patient — ColorWave will render files over 100MB but it takes time on most desktop machines and especially so if you have used Waves or large radius Blurs!!

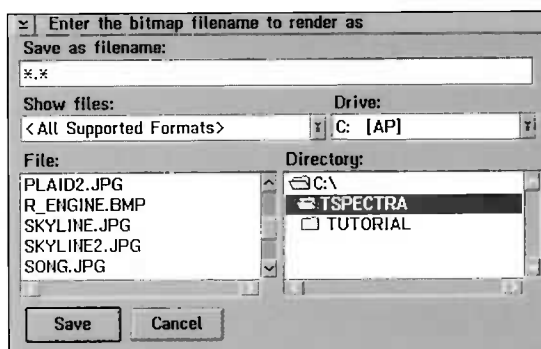
Note: Only the parts of your project that are contained within the border of the Output Area (defined by the Output Settings) will be saved in the rendered image. If in doubt, load the resulting rendered file and check its contents.

You can quickly create a bitmap image, at any resolution, from a Project designed in Photo>Graphics. The process of saving a Bitmap Image from Photo>Graphics is called "Save Rendered".

A project can be saved to a number of popular bitmap file formats, including: .BMP, .TGA, .TIF, .GIF, and .JPEG. Saving a file 'rendered' will allow that Project to be used in your favorite Word Processor or Presentation software package. You can also use these saved files to enhance your Internet Web Page.

To save a project as a bitmap image:

1. Click once with your Right Mouse button to bring up the Main Menu.
2. Choose 'File' and then 'Output Settings'.
3. Set the size of your Output Area and resolution from the dialog that appears. Then close the dialog and zoom back in your main Workspace.
4. Ensure portions of your Project that you wish to save are inside the Output Area of your main WorkSpace. You can group objects and then move/resize them to fit if required.
5. Click once with your Right Mouse button to bring up the Main Menu.
6. From this menu, choose 'File' and then 'Save Rendered'.



7. Choose the drive, directory, bitmap file format and file name for the new bitmap image.

GIF Images

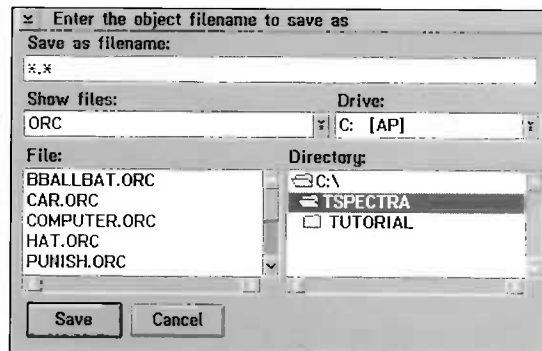
If you choose to save your image as a GIF, you will also be prompted for options to make it "interlaced" (for Web Internet transmission) and/or "transparent". If you select to save a transparent GIF, any area of your Project which is a solid white will be transparent in the final rendered GIF allowing Web users to see through parts of the image to their browser background.

Note: ColorWave will automatically dither images to the 256 color GIF format — but quality will be lost. We recommend JPEG format for the Web unless transparency is important for the desired visual page effect.

Saving Objects in ColorWave Format ('.ORC')

If you have taken the time to create a special object, it is a good idea to save it independently from your Project files. For example, you may wish to trace the shape of a delicate flower and save the resulting "floating" flower for future use or you may have created a logo (the ColorWave logo for example) and want to have it quickly available.

The ColorWave '.ORC' format is used to store resolution independent objects. It can contain any object or grouped object. Note however, that bitmap objects will only store a reference to the required bitmap making the use of '.ORC's with bitmaps dependent upon the system configuration staying fairly consistent.



To save an object in the Photo>Graphics '.ORC' format

1. Select the object you wish to save.
2. Click once with your Right Mouse button to bring up the Context Menu.
3. From this menu, choose 'File', and then 'Save Object'.
4. Choose the drive, directory and file name that you wish to apply to the saved object. Note: Objects will be saved by default with the '.ORC' file-name extension.

A Note About Resolution

The ColorWave render engine is architected for resolution independence so that you do not have to decide, up front, what resolution output you require. You can proof on inkjet printers and later render a TIFF file to produce an image that can be sent to an imagesetter. Objects containing scanned bitmaps have an original resolution however, that can only be interpolated up to a higher resolution by ColorWave and although every effort is made to ensure the integrity of these bitmaps, even when rotated or skewed, it is impossible to make low resolution bitmaps look good at poster size. If going to press, start with bitmaps at 200–300dpi, render with other effect objects in ColorWave and save a final 300dpi TIFF (for a 150 line/inch screen) with bitmap smoothing.

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