

TRUE SPECTRA



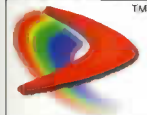
Photo > GRAPHICS™

Tutorial Guide

Ready for

OS/2 WARP

COLORWAVE™



GRAPHICS RENDERING

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Welcome to TrueSpectra Photo>Graphics — A new generation graphics application for combining powerful image processing, vector draw and text effects in a truly resolution-independent environment. Images in many popular file formats from CD-ROMs, digital cameras, image encyclopedias and the Internet may be transformed quickly into stunning graphics compositions for business and entertainment.

If you are familiar with traditional pixel editors or draw packages, Photo>Graphics will take a little time to get used to — but the rewards of a truly object-oriented approach to graphics and the option of saving rendered at *any* resolution to industry standard bitmap formats will make this a valuable addition to your software library. For those who are first learning computer graphics, we can think of no better place to start!

This Tutorial Guide is designed to equip you with the necessary skills to effectively use many of the key features and commands available in Photo>Graphics. The Guide begins with an Introductory Exercise designed to teach you the basic Photo>Graphics techniques which you will need later in the Tutorial Section. Each Tutorial is intended to build on previously learned skills. As a result, when you work through the entire Guide, detailed information for completing each step will become less specific. Of course, if ever you can't recall how to carry out a step, you can locate the information by flipping back to previous Tutorials or by referring to the accompanying *TrueSpectra Photo>Graphics User Guide*. After only a few Tutorials, you will see how easy it is to create both entertaining and professional looking graphics and images with Photo>Graphics!

For additional information on all aspects of Photo>Graphics features and functionality, please refer to the *TrueSpectra Photo>Graphics User Guide*.



The ColorWave Render Engine

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 typically 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.

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 save an entire Project, however, the ".GDO" (General ColorWave Object-

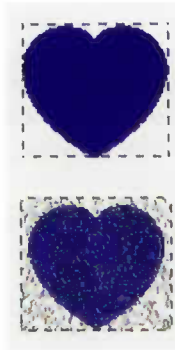
Oriented Document) file extension is applied. In both cases, all products with licensed ColorWave 2.0 capabilities will be able to load and render your file. Note, however, that some ColorWave 2.0 applications may not be able to edit all types of objects in your Project as they may not have as extensive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

When electronically distributing the results of your work, if you are uncertain as to whether or not other products have ColorWave 2.0 compatible viewers or editors, it is recommended that you also save a rendered version of your project as a .JPG or other traditional image file format. You will learn more about "Save Rendered" later.

The TrueSpectra Photo>Graphics Concept:

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

$$\text{Object} = \begin{array}{c} \text{Region} \\ \text{(shape or area)} \end{array} + \begin{array}{c} \text{Tool} \\ \text{(fill or effect)} \end{array}$$



A Region can be thought of as a specific shape or area to work with, while a Tool is something you use to fill a Region or have an effect on a Region. For example, if you create a Heart shaped Region that is filled by a Solid Color Tool, identified as the color blue, the resulting object would be one that represents a blue heart!

Similarly, you could create an object that has a rectangular shape but is filled with a noise Tool. When this new object is placed over the blue heart, the texture of the blue heart could then be adjusted easily. If you create an object that uses a Bitmap (photograph) as a Tool, you could use a new, rectangular shaped contrast and brightness object, for example, to adjust the contrast and brightness of the photograph. If you move this upper object later, the Bitmap would return to its original appearance.

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.

Any combination of objects is possible in Photo>Graphics since objects are arranged on the Workspace in layers. Objects fully or partially on top of other lower objects affect those lower objects.













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	Right Mouse Button
<ul style="list-style-type: none"> • Create objects • Select objects • Resize objects • Flip objects • Draw and Paint 	<ul style="list-style-type: none"> • Display the Context Menu • Move objects • Rotate and skew objects • Group and align objects • Move control points

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 also 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 describes the meaning of the different mouse pointers.

 Default Mouse Pointer	 Move Pointer	 Line Draw Pointer
 Horizontal Resize and Skew Pointer	 Zoom and Pan Pointer	 Freehand Draw Pointer
 Vertical Resize and Skew Pointer	 Rotate and Resize Pointer	 Roller Draw Pointer
 Unselected Control Point Draw Pointer	 Selected Control Point Draw Pointer	 Move Control Point Draw Pointer

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. You can also access the Context Menu which has Automatic 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

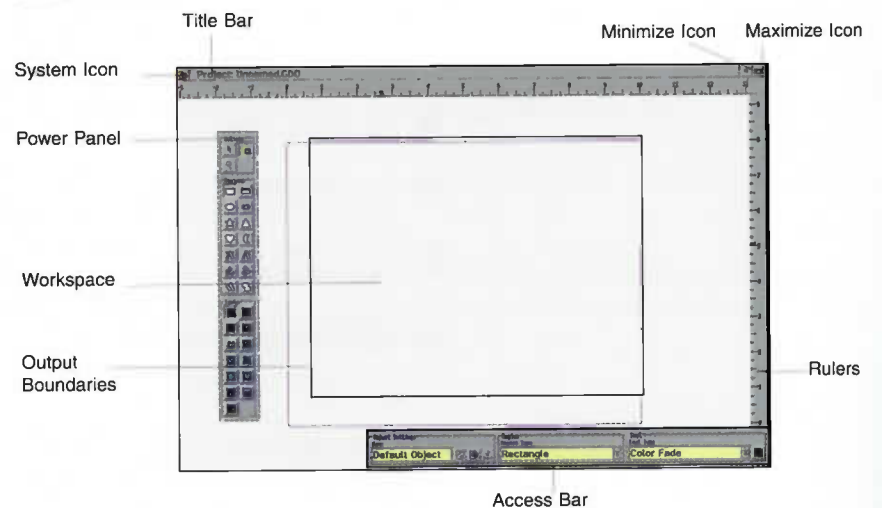
Photo>Graphics has a special over-ride of traditional mouse operations that allows you to *cancel* a rotate, skew, move or resize action. If you move the mouse when either button is held down, the resulting operation can be stopped by pressing the opposite button before releasing the first. This is a very handy feature for comparing design scenarios - just drag an object to the side, wait until ColorWave has updated the screen to see a "before" scenario and then press the opposite button to see the "after" scenario.

To use Photo>Graphics, you must have successfully completed the Photo>Graphics installation as described in the User Guide. Your system requirements should be as listed in the User Guide. If you have a slower system than recommended, or if you have many interacting blur and sharpen effects, you may choose to run the Photo>Graphics Workspace at less than full screen size, as was described in *Using the Mouse*, above.

Starting TrueSpectra Photo>Graphics

To launch the Photo>Graphics application, double click with the Left Mouse button on the Photo>Graphics icon that was placed on your desktop during installation. The first item to appear will be the Splash Screen which contains copyright information. Please read the Splash Screen and if you wish to proceed, click on O.K. Next to appear will be the a dialog listing your recently edited Projects. You can select from this list or press the "New" button to create a new Project. Then the Photo>Graphics Workspace will appear containing selections from the following components:

The Workspace



The large

white area within the Photo>Graphics Screen is called the Workspace. This Workspace is a virtually unlimited digital canvas where you can create an image or drawing. The pink outline on the Workspace represents the output area, and only the parts of a project that appear within this outline can be saved rendered as an image or printed.

Title Bar

The Workspace Title Bar can be used to reposition the Photo>Graphics window within the main screen. In addition, this area displays the name of an active Project. The default name of any Project is 'unnamed.gdo' until it is saved with a new name.

The icon controls for minimizing and maximizing the application are found on the far right side of the Title Bar. The icon on the left side of the Title Bar can be used to close Photo>Graphics.

Context Menu

The Context Menu contains commands that pertain to a specific object, if one is selected, or to the Project as a whole if no objects are selected. With the commands in this Menu, you can affect an object in many ways such as its order, position or alignment on the Workspace. This Menu can be displayed by selecting an object and clicking once anywhere on the Workspace with the Right Mouse button. Note that if no objects are selected, or if you have not yet created any objects in a Project, the Context Menu will have very limited available choices. Specific context dependent "Flow Through" Menus can be displayed by clicking with the Left Mouse button on any of the command options from the Context Menu.

Flow Through Menus

Flow Through Menus are context dependent because Flow Through options are different if an object is selected or if it is not! The Flow Through options available from the Context Menu can pertain to the Workspace in general or to specific file as well as object management and print Menus.

Automatic Menu

The Automatic Menu appears automatically once you have drawn out a rectangle using the Left Mouse button. This Menu lets you perform an action such as 'Group Objects' or 'Load Objects'.

Power Panel

When you launch Photo>Graphics, the Power Panel appears on the left side of your Workspace. The Power Panel allows you to Create objects, Edit objects as well as Pan and Zoom in on your Workspace. You can enter either of these modes by simply clicking on the related buttons on the Power Panel with the Left Mouse button. You can move the Power Panel by pressing with the Left Mouse button anywhere on the gray area outside the buttons but inside the Power Panel. With the Left Mouse button depressed, drag the Power Panel to a desired location on the Workspace. The Power Panel can be placed outside your Workspace if necessary and can also be made thin and vertical (see User Preferences).



Default Photo>Graphics Power Panel

Access Bar

Should your Power Panel disappear from your screen entirely, choose 'Show Power Panel' from the 'User settings' Flow Through option in the Context Menu.

The Access Bar appears at the bottom of the Workspace. This bar is divided into three main areas: the Object Settings area, the Region area and the Tool area. Each of these areas reflect the individual properties of an object selected on the Workspace.



If no objects are present on the Workspace, or if none is selected, then the Access Bar will reflect the properties of the *next object to be created* ("default object"). That object's Region and Tool will be defined by the selections on the Power Panel while the object Create mode is active.

Whenever you need to change or make an adjustment to a particular Region, Tool or Object Setting, the options available to you are found in the Access Bar and revealed by clicking on the appropriate button. Any dialogs that appear as a result of clicking on a button on the Access Bar can be closed quickly by clicking again on the depressed button. These dialogs can also be dragged away from the Access Bar by pressing the Left Mouse button on the dialog background and dragging away from the Access Bar. This is a very handy feature when you wish to edit multiple objects at once, since objects relating to detached dialogs do not need to be highlighted.

You can move the Access Bar easily by placing your mouse pointer anywhere on its shaded background. Simply press the Left Mouse button and move the Access Bar to a desired location on the screen.

User Preferences

The Preferences Dialog contains options for customizing the Workspace and certain application attributes according to personal preferences. User preferences can be changed any time while you are working on a project. To do this, simply click with the Right Mouse button, select 'User Settings' from the Context Menu, then 'Edit Preferences' from the Flow Through Menu. For detailed information on the selections available in Edit Preferences, please refer to *Setting User Preferences* in Section 1 of the *Photo>Graphics User Guide*.

Rulers

Rulers will appear at the edge of the Workspace to help determine the size and position of objects. To turn this option off, edit the Preferences dialog. The units of measurement on the Rulers can be chosen from the Output Settings dialog. This dialog is opened by clicking 'Output Settings' in the Context Menu. You may select from inches, centimeters, points or pixels.

Gridlines

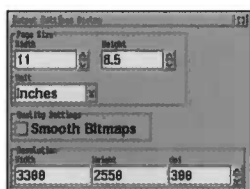
To align objects easily on the Workspace, Gridlines can be displayed. Use the Preferences dialog to turn Gridlines "on" or "off". When Gridlines are displayed, any object or point that is moved close to a Gridline tends to "snap" to the Gridline.

Pop-Up Hints

Hint Bubbles appear on the Workspace when the mouse pointer is placed and held momentarily over an area or element of the screen. The Hint Bubble will display information about that particular area or element.

Output Settings

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



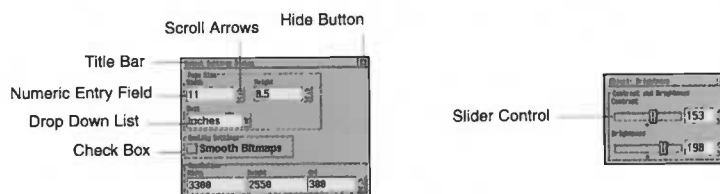
It is important to note that with the resolution independent ColorWave render engine, it is not necessary to specify the desired final output size before you begin to work on a project. *Objects will be stored in a compact, resolution independent form regardless of your output settings.*

If you wish to output a project, it is important to specify the resolution in dots per square inch (dpi). You should also smooth the image so that it is not too pixelated when it is saved. See the section on Resolution in the User Guide for further details.

Dialog Boxes

Photo>Graphics uses Dialog Boxes that contain the operational controls for functions such as printing and changing output settings. In addition, special Dialog Boxes are used for adjusting the properties of Regions and Tools.

Photo>Graphics Dialog Boxes



The following is a brief description of some of the most common controls used among the dialogs in Photo>Graphics.

TITLE BAR

If a dialog relates to a particular object, the Title Bar contains the name of the object controlled by the dialog. If an 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. This feature is useful since Dialog Boxes can be positioned to one side of the screen and left for extended use.

HIDE ICON

The Hide Button icon in the top right corner of a dialog is used to hide the dialog box. All dialogs can be restored to their current state from the Access Bar or Context Menu depending on their application.

CHECK BOXES

Check Boxes enable or disable a specific option. The option is enabled when a check mark appears in the box. The option is disabled when the check box is empty.

SCROLL ARROWS

Scroll Arrows are used to change the values in numeric entry fields. The mouse can be used to select the up or down arrow and increase or decrease the value in the selected field.

SLIDER CONTROLS

Slider Controls are used to adjust the numeric value of a particular setting with a known defined range (i.e. a percentage or range of color). Small arrows appear at certain points on some sliders. When the mouse is used to click on these arrows, the slider will move automatically to that point on the slider bar.

DROP DOWN LISTS

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

Introductory Exercise: Learning the Basics

This exercise will familiarize you with the Photo>Graphics Workspace, the basic Controls and the Dialogs used to create and manipulate objects. This exercise will also explain some of the concepts necessary to master the program successfully.

Many of the bitmap or photographic images and object files discussed in this Tutorial Guide were automatically saved to your hard drive at the time you installed Photo>Graphics. These files can be found in the sub-directory TUTORIAL within the Photo>Graphics Directory on your system (typically CATSPECTRA/TUTORIAL).

For the purposes of this Tutorial Guide it is suggested that you set the following Preferences:

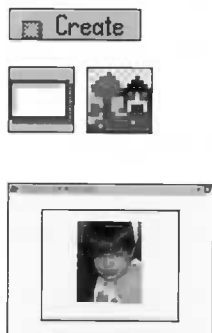
- Save Preferences
- Start with Power Panel
- Pop Up Hints
- Rulers

To set these preferences, click with the right mouse button on a blank area of the Workspace and select 'User Settings' from the Context Menu that appears then 'Edit Preferences' from the Flow Through Menu. Make sure that a check mark appears in the box next to each of the above options.

Don't forget that Hint Bubbles appear when the mouse pointer is placed and held momentarily over an area or element of the Workspace. When working through this Exercise, use the Hint Bubbles when necessary to help you become efficient with Photo>Graphics. Have Fun!

STEP 1 - CREATING A NEW OBJECT

1. Press the object 'Create' button on the Power Panel.
2. Predefine the object you want to create by pressing the 'Rectangle' Region button, then the 'Bitmap Tool' (Fill) button. For this exercise, the Bitmap Tool button should be chosen so that the object has what is called a "visible" fill. Some other Tools, indicated by the Tool buttons with blue backgrounds, are "invisible" effects. These Tools are used to create objects that affect the appearance of other, "visible" objects. This will be discussed in more detail later.



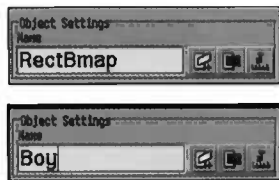
Note: Because you are using a Bitmap Tool to define your object, you will be prompted to choose the path and directory of the bitmap you would like to use. You can use any of the bitmap files (those with an extension .JPG, .BMP, .GIF etc.) that are stored in the TUTORIAL sub-directory of Photo>Graphics for this exercise. In this case, 'BOYBLUE2.JPG' will be used.

3. Move your mouse pointer to the area near the center of your Workspace where you wish to place the upper left hand corner of your object.
4. Press and hold the Left Mouse button while dragging your mouse down to the lower right 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 desktop Workspace.

Naming Objects

Every object in Photo>Graphics is assigned a default name which can be changed to something more meaningful. For example, the default name for an object that is comprised of a rectangular shaped Region and a Color Fade Tool is 'RectCfade'. If your object happened to be a Rectangle Region with a blue Solid Color Tool, you might choose to name the object 'Blue Rectangle'.

It is a good habit to name your objects. Especially so if you plan to create intricate projects containing large numbers of objects, or if you plan to group objects together, then edit them at a later time. Note that the object name is placed in the Title Bar of dialogs, so long names may not be fully visible on the smaller dialogs.



STEP 2 - NAMING YOUR OBJECT

1. Select the object 'Edit' mode from the Power Panel.
2. Position your mouse pointer over the Bitmap object you created in Step 1. If the object is not highlighted, click once with your Left Mouse button to select the object. The object will appear to have a live marquee outline; this is how you can verify that you have selected the object successfully. (Try clicking a few times to alternately select and deselect the object.)
3. Look to the Access Bar at the bottom of the Workspace. In the Object Settings area, notice that your object has been given the default name, 'RectBmap'.
4. Delete the default name. This is done by placing your mouse pointer over the name field. Note that the pointer changes to an "I-bar" symbol. Next, click once with your Left Mouse button to activate a text cursor then highlight the text and using the "Delete" or "Backspace" keys on your keyboard, remove the default name.

5. With the cursor still blinking in the Name Field, type in a new, meaningful name for the object on your Workspace, try 'BOY'. You do not have to hit the "Enter" key to end this operation, simply move the cursor away from the field and continue working on your project. *This is true for all TrueSpectra controls, you never have to hit Enter or press O.K. while creating your design.*

Editing Objects

Any object that you create in Photo>Graphics can be changed at any time. Not only can they be moved, resized, skewed and mirrored, but also, they can be assigned new Region and Tool types with just the click of one button.

STEP 3 - CHANGING THE REGION OF YOUR OBJECT



1. Position your mouse pointer over the 'BOY' object you created in Step 1. Be sure that the object is selected, showing the live marquee outline, if not, click with your Left Mouse button to select the object.
2. If not already selected, press the object 'Edit' button on the Power Panel.
3. Select a new Region for your object by pressing a different Region button on the Power Panel and notice how the object changes. Continue selecting new Regions and see how the object is affected each time. Use this as an opportunity to learn what type of *object* will result from selecting a particular button on the Power Panel.

Note: Some Regions, like line draw, user draw or custom Regions make your object seem to "disappear". This is because those specific Region types require further information to be "visible".

4. Look at the Access Bar and notice that as you change the Region, the Access Bar is updated. You may also change Regions from the Access Bar by selecting a new Region from the dialogs.
5. As a final selection, choose Rectangle Region.

Now that you have an idea of the Regions you can choose from when creating objects, you can experiment with the different Tools that are also available. To do this effectively, you should duplicate the object that you have been working with up until now. This will enable you to see the results of combining the "visible" objects with the "invisible" objects that were referred to earlier.

STEP 4 - DUPLICATING THE OBJECT

1. Select the object on your Workspace that you created in Step 1.
2. Once the object is selected, click once with your Right Mouse button. This will bring up the Context Menu and the Object Management Flow Through Menu.
3. From the Flow Through Menu, select 'Duplicate Object'.

When an object is duplicated, a new object is created that possesses exactly the same characteristics as the original object. This means that the duplicate will have the same Region and Tool selections. The new object is active and placed directly on top of the original object (it has the same size and position), so it is not always visible on your Workspace unless you move it.

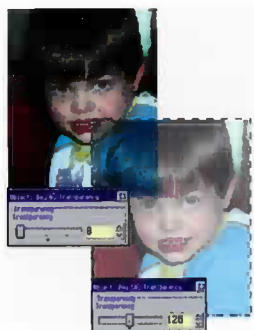
4. Name the active, duplicate object 'BOYDUP'.

STEP 5 - MOVING THE DUPLICATE OBJECT

1. Move your mouse pointer over any area of the selected, duplicate object. Notice the pointer changes to a four-headed arrow Move Pointer.
2. With the Move Pointer displayed, press and hold the Right Mouse button.
3. Now, still keeping the Right Mouse button down, move your mouse in the direction that you wish to move the object.
4. If you are not pleased with the exact positioning of the object, continue the move action or press the opposite mouse button while the first is still depressed to erase the move. When you have selected the new position, release the mouse button.



For the purpose of this exercise, you should move the object to the right just a little - so that it still overlaps the original object. This will allow you to explore the different effects that you can add to objects, using the Tools provided in Photo>Graphics.



STEP 6 - ADJUSTING THE OBJECT TRANSPARENCY

1. Ensure that the duplicate 'BOYDUP' is still selected.
2. Change the Transparency of the object by clicking on the Transparency button in the Object Settings area on the Access Bar.
3. Adjust the transparency of the object by pressing and holding the Left Mouse button on the transparency slider and moving it to the right; release the button. Experiment with this a few times and notice how the numerical field values change as the transparency changes. Return the slider to the far left when you are finished.

Like any of the dialogs on the Access Bar, this dialog can be closed easily by clicking with the Left Mouse button again on the depressed button.

Note: As mentioned in the Introduction, you can tear the dialogs away from the Access Bar at any time. To do this, press and hold with the Left Mouse button on any part of the dialog background and drag the mouse to tear the dialog away. Release the mouse button to drop the dialog into the position desired. You can reposition the dialog using the Title Bar or close it by clicking with the Left Mouse button on the close icon in the upper left hand corner.

Dialogs which are torn away from the Access Bar are called floating dialogs. This is a very useful feature since any floating dialogs remain actively tied to an object on the Workspace. *Whether or not an object is selected, changes made to the associated floating dialog can be seen immediately, providing for intricate adjustments.*



STEP 7 - SELECTING A NEW TOOL

1. Again, using the duplicate, and now slightly moved, active object (contained within the live marquee outline), select the 'Edit' button on the Power Panel.
2. Change the Tool of the selected object by choosing from the fill/effect area of the Power Panel. Notice that when you select certain Tools, the object becomes "invisible", and the original, "visible" object is affected in the area where the invisible object overlaps it.
3. Give the object a meaningful name.

Invisible objects are best displayed when used in conjunction with objects that contain a Bitmap Tool. The invisible objects available include: Custom Tool, Wave, Contrast & Brightness, Blur, Pixelate, Grayscale and Sharpen. Note that if you have inadvertently selected the first, lower object, changes you make to the top object will not be seen. *Objects are layered — only those above other objects can affect lower objects.*

Grouped Objects

When you have two or more objects on your Workspace that you wish to resize, or manipulate together at one time, it is best to Group the objects first.

STEP 8 - GROUPING OBJECTS

1. Select the object 'Edit' mode on the Power Panel.
2. Move your mouse pointer to a position on your Workspace that will allow you to draw out a rectangle that *fully* contains the two objects you have created previously.

3. Press and hold the Left Mouse button, while drawing out a rectangle until the two objects are contained.
4. Release the mouse button. The Automatic Menu will appear immediately which will provide you with a number of options. Choose 'Group contained objects'.

A marquee outline will appear that represents the new, grouped object on your Workspace. This grouped object will now behave as a single object and can be named as before, moved, resized, flipped, duplicated, rotated and deleted with one action.

Note: If Automatic Menu shows grayed out Group command, you have not completely encompassed the objects you wish to group. Try again.

STEP 9 - RESIZING AN OBJECT (GROUPED OR SINGLE)

1. Using the selected, grouped object, move your mouse pointer to one corner, or any side of the marquee outline. When the pointer is placed at these specific areas on the marquee outline, the mouse pointer changes to indicate that you can resize the object.
2. Press and hold the Left Mouse button, while at the same time moving your mouse toward or away from the center of the object. This will make the object appear smaller or larger than it was before the resize action.

Notice that both of the original objects within the new grouped objects resize together and at the same rate. If you wanted to resize a single object, the same procedure as described above would apply, but to a single object. Note that an object's 'Aspect Ratio' dialog affects how it is resized. See the User Guide for more information.

STEP 10 - UNGROUPING A GROUPED OBJECT

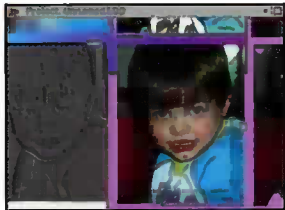
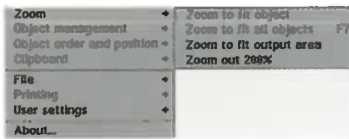
1. Ensure that the grouped object is selected, then click with the Right Mouse button to reveal the Object Management Flow Through Menu.
2. Choose 'Ungroup Object' to ungroup the objects grouped previously. Note that the marquee outline no longer contains both objects.

Pan & Zoom

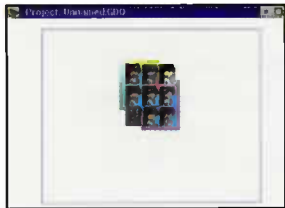
Using the Pan & Zoom button on the Power Panel you can move the Workspace around the screen as well as move in closely on specific objects or an area of an object.

STEP 11 - PANNING

1. Click with the Left Mouse button on the 'Pan/Zoom' button on the Power Panel. Notice that this action deselects any live object on the Workspace and changes the mouse pointer to a magnifying glass when moved away from the Power Panel.
2. Click and hold with the Right Mouse button and move your mouse slightly to pan the Workspace on your screen.
3. To exit the Pan/Zoom action, select object 'Edit' from the Power Panel and click with the Left Mouse Button on a blank area of your Workspace.



Zoom In



Zoom Out

STEP 12 - ZOOMING IN AND OUT

1. Click with the Left Mouse button on the Pan/Zoom button on the Power Panel and notice that all objects are deselected and that the mouse pointer has changed to a magnifying glass.
2. Position the magnifying glass to the upper left of the object or area of an object you wish to zoom in on and draw out a rectangle around your area of interest by holding down the Left Mouse button and dragging your mouse.
3. Release the mouse button when you have drawn out the rectangle and wait for the zoom in process to be completed. Notice that when you zoom in, you are specifying an AREA of the Workspace to move in on. If you wish, you can continue to zoom in on the Workspace.

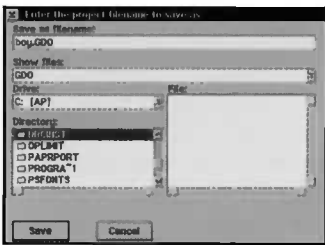
Note: ColorWave may not render accurately if you zoom to the point that your screen covers less than one tenth of an inch or if your memory is insufficient to support inter-object buffering, particularly for wave and blur objects.

4. Click with the Right Mouse button to Zoom out about the point where you clicked.
5. Alternately, select object 'Edit' from the Power Panel and then press the Right Mouse button to reveal the Context Menu. Choose 'Zoom' and select from the Flow Through Menu that appears.

Note: 'Zoom out 200%' reduces the size of objects by 50% each time it is applied. 'Zoom to fit output area' resizes the Workspace so that all objects within the output area are shown on the visible Workspace. An alternate Zoom method is to click with the Left Mouse button on the object Edit button on the Power Panel. Then, draw out a rectangle by holding down the Left Mouse button and release. Select 'Zoom in' from the Automatic Menu that appears.

STEP 13 - DELETING AN OBJECT

1. Click with the Left Mouse button on the object Edit button on the Power Panel. Select an object on the Workspace by placing the mouse pointer above the object and clicking with the Left Mouse button to activate the live marquee outline.
2. Click with the Right Mouse button to reveal the Context Flow Through Menu.
3. Choose 'Object Management' then 'Delete'.



Saving your work

Once you have created a project, you may wish to save it so that you can show your work to others or use it again in the future. Save the project from this exercise by following these steps:

STEP 14 - SAVING YOUR PROJECT

1. Make sure that all of the objects on your Workspace are deselected so that no marquee markings are present. This is most easily done by pressing the Escape key on your keyboard.
2. Anywhere on your Workspace, click once with your Right Mouse button to reveal the Context Menu.
3. Choose the 'File' option Flow Through Menu then select 'Save Project'. Next, a dialog will appear which requires you to name your project as well as select a directory in which to save it. In the TUTORIAL sub-directory, save this file as filename 'MYFIRST.GDO'.

As mentioned previously, in Photo>Graphics, Projects are saved in a special format with the extension .GDO. This unique file format saves your Projects in a resolution independent, device independent and compact format meaning that they don't take up too much space on your hard drive! Remember to look for the .GDO extension when you are loading an existing Project to your Workspace.

Note: Do not erase images that you are using in your Projects, .GDO files do not typically replicate bitmap data. Images referenced and stored elsewhere on your hard disk are required each time a .GDO is loaded.

STEP 15 - CLEARING THE WORKSPACE

1. Click on the Right Mouse button to reveal the Context Menu.
2. Choose the 'File' option.
3. From the Flow Through Menu, click with the Left Mouse button on the 'New project' option and complete the warning dialogue.

STEP 16 - EXITING PHOTO>GRAPHICS

1. First ensure that any work that is newly created has been saved.
2. Click on the boomerang icon in the top left corner of the Photo>Graphics Workspace.
3. Choose 'Close' from the Menu that appears.

Congratulations! You have now completed the Introductory Exercise of TrueSpectra Photo>Graphics. If there are some points in this Exercise that you are still uncertain about, please review them. Otherwise, continue to the Tutorial section and enjoy learning the full power of ColorWave.

TWO MINUTE FUN!

Here is a quick way to show others how objects interact in Photo>Graphics and have fun at the same time:

1. Start Photo>Graphics - you will notice that when the Workspace comes up, 'Create' is already selected with a Rectangle Region and Color Fade fill.
2. Draw out about 25 small rectangles as fast as you can (Neat pattern if they overlap a bit).
3. Draw out one large rectangle containing the smaller ones.
4. Press 'Edit' on the Power Panel, ensure that the large rectangle is selected.
5. Start with Grayscale, then switch the Tool to Emboss.
6. Move the Emboss, but do not let go of the Mouse button, then press the Right Mouse button with the Left still held down - Emboss jumps back.
7. Lastly, adjust the transparency of the Emboss, not with the slider as above, but by holding down the buttons next to the value field - how fast is your system - can ColorWave keep up with you?
8. *Killer* - do the above, but start with 35 small Bitmaps!!



Touching up a Photograph

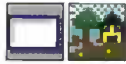
In this Tutorial, you will:

- Create objects using bitmaps and the Power Panel
- Zoom In and Zoom Out
- Use the Contrast and Brightness Color Adjustment to change the color of part of a bitmap image
- Edit objects using the Power Panel
- Duplicate and move an object

Step 1 - Begin with a Bitmap (Photograph) Image



- 1. Choose the object Create action on the Power Panel. You must specify a Region and a Tool to load the bitmap image.**



- Select the Rectangle Region.
- Select the Bitmap fill.

- 2. The Load bitmap dialog will appear. Here you must select the drive, directory and name of the file you wish to bring onto your workspace. Use 'BOYBLUE2.JPG' as the Bitmap fill.** You will find this bitmap image in the TSPECTRAITUTORIAL directory.

- 3. Determine the size of the object and create it.**

- Move your mouse pointer to the top left corner of a blank area on the workspace.
- Press and hold the left mouse button while dragging your mouse to the bottom right corner.
- Release the Left Mouse button.

Step 2 - Changing the Color of the Boy's Eyes

- 1. Zoom In on the boy's right eye.**



- Select the Pan/Zoom mode on the Power Panel - the mouse pointer will change to a magnifying glass.
- Drag out a rectangle on the workspace using the Left Mouse button that contains the boy's right eye. Release the mouse button and wait for the zoom in to be rendered.

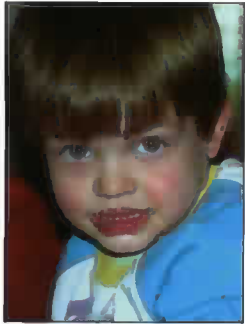
- 2. Use the object Create action on the Power Panel to create an Ellipse Region filled with a Contrast & Brightness effect.** Draw out a rectangle to create this object to be approximately the same size as the colored area of the boy's eye. This will appear as an 'invisible' object.



- 3. Change the color of the eye.**



- Enter object Edit mode and select the Ellipse shaped object just created.
- Choose the Color Adjustment button in the Tool area on the Access Bar.
- Use the slider control to adjust the color GREEN to a realistic level by mov-



1

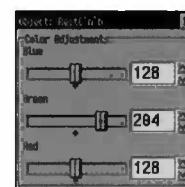


2

ing the slider to the right slightly to increase the amount of green in the boy's eye - don't take it up too much or it won't look real.

4. Soften the edges of the newly added color by changing the Ellipse shaped object to an Ellipse Fade.

- Select the object Edit mode.
- With the Ellipse shaped object still selected, click on the Ellipse Fade button in the Region section of the Power Panel.



5. Zoom out so that you can see the whole image of the boy.

- Deselect all objects by pressing the Escape key or both Mouse buttons simultaneously. Click once with the Right Mouse button on the workspace to display the Context Menu.
- Select the Zoom Flow Through Menu then 'Zoom to fit output area'.

Zoom	+	Zoom to fit object	
Object management	+	Zoom to fit all objects	F7
Object order and position	+	Zoom to fit output area	
Clipboard	+	Zoom out 200%	
File	+		
Printing	+		
User settings	+		
About...			

6. Change the color of the left eye.

- Simply select the object you have just created, press the Right Mouse button to bring up the Context Menu and select 'Object Management', then 'Duplicate' to duplicate the object. Move the duplicated object directly over the left eye.

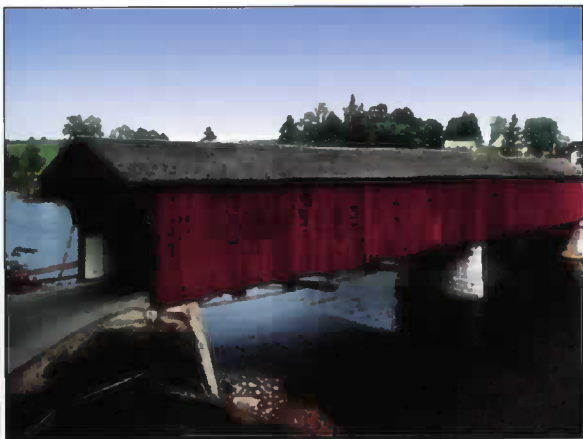
For the Adventurous

Spot Removal Techniques:

In the above Tutorial you worked with an object defined by an Ellipse Fade Region and a Contrast & Brightness Effect to adjust the color of the boy's eyes. A similar technique can be effectively used to very quickly eliminate undesirable spots on images:

- Load a lower quality image, say 'TULIP.JPG' from the TSPECTRA\TUTORIAL directory and zoom in on dust spots on the yellow ~~petals~~ petals.
- Create an object with an Ellipse Fade Region and a Blur Effect covering a dust spot and extending just past its edges.
- Adjust the Density of the Ellipse Fade and the Radius of the Blur so that the spot disappears. For larger spots, it is often preferable to use multiple smaller objects, as one larger object will make the area of the spot look too smooth, causing the natural grain of the image to disappear. (Noise could be added later, if necessary.)
- When you have finished, do not forget to group all the objects so that the fades stay with the base image even when you resize or rotate.

If you have a long, wide scratch in an image, an even more advanced approach is required. In this case, you will use a Freehand Draw Region with the Blur Effect, Bitmap Fill, or even Custom Tool in extreme cases. Softness on the Draw must be set fairly high to soften the edges of lines you create and if parts of an image must be used to replace missing parts, the areas used for replacement must be carefully positioned in the Bitmap Fill or Custom Tool. Information about Draw can be found in the *Photo>Graphics User Guide* and after a little practice, you will be amazed at how fast you can touch up a photograph.



Enhancing a Photograph

In this Tutorial, you will:

- Use contrast, brightness and transparency to adjust the appearance of a bitmap image
- Add color enhancement to a bitmap image
- Change the color of an object
- Give objects meaningful names



Step 1 - Begin With a Bitmap (Photograph) Image



1. Choose the object Create action on the Power Panel. You must specify a Region and a Tool to load the bitmap image.

- Select the Rectangle Region.
- Select the Bitmap fill.

2. When the Source Bitmap dialog appears, select 'DARK.TGA' from the TSPECTRA\TUTORIAL directory.

3. Determine the size of the object and create it.

- Move your mouse pointer to the top left corner of a blank area on the workspace.
- Press and hold the Left Mouse button while dragging your mouse to the bottom right corner.
- Release the Left Mouse button.

4. Name this object 'Dark Photo'

- Place the mouse pointer over the Name Field in the object Settings box on the Access Bar. Click with the Left Mouse button and drag the pointer to highlight the name. Delete the text and enter the name 'Dark Photo'.

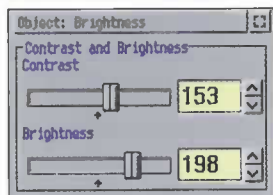


Step 2 - Make the Image Brighter



1. Create another object, this one a Rectangle Region filled with a Contrast & Brightness Tool.

- Choose the object Create action on the Power Panel.
- Select the Rectangle Region.
- Select the Contrast and Brightness effect.
- This object must cover the entire 'Dark Photo' to be effective. When drawing out the marquee outline, be sure to start and end with the pointer exactly at opposite ends of the bitmap image. Position and resize it as necessary.



2. Name this object 'Brightness'.



3. Make the image brighter.

- Select the Brightness object just created and press the Contrast & Brightness button in the Tool area on the Access Bar.
- Experiment with both the Contrast and the Brightness sliders by moving them back and forth to make the bridge in the image look brighter.

Step 3 - Make the Sky More Blue

1. Create an object from a Ramp Region and the Solid Color Tool.



- Choose object Create action from the Power Panel.
- Select the Ramp Region.
- Select the Solid Color Tool.
- Size and position this object so that it is the same width as the original bitmap image, with the bottom of the object barely touching the trees in the background at the top of the photo.

2. Adjust the color of the object.



- Be sure the object you just created is selected.
- Choose the Color Selection button from the Tool area on the Access Bar.
- Place the mouse pointer over a blue area on the color palette and click with the Left Mouse button. Close the Color Selection dialogue by clicking again on the button on the Access Bar. Alternately, press and hold down the Left Mouse button on the Color Palette and drag the small target square off the palette and over some portion of the image. The sky will take on the color of the selected part of the image.

3. Name this object 'Blue Sky'.

4. Increase the transparency of this object by 25% using an object Setting control.



- With the object 'Blue Sky' selected, click with the Left Mouse button on the Transparency button in the object Settings on the Access Bar.
- Move the slider to the right to show 25% transparency in the number field.



For the Adventurous

Sky Replacement Techniques:

In the above Tutorial you worked with an object defined by a Ramp Region and a Contrast & Brightness Effect to adjust the color of the sky. This has the advantage of creating a nice, bright, sunny day mood. Other techniques are available should you wish to keep the original cloudy sky or even replace the sky entirely with one from another photograph. These involve creating a mask for the sky and then independently adjusting the contrast and brightness for the masked sky or projecting colors (or even a new sky) through the use of a Custom Tool.

Look in your 'TSPECTRA\TUTORIAL' directory for the file 'SUPERSKY.GDO'. You will find a complex, but very effective enhancement of the original bridge above. When you have completed all these tutorials, you will likely find an examination of the structure of this Project very enlightening.



Creating a Collage

In this Tutorial, you will:

- Create objects using the Power Panel
- Give objects meaningful names
- Use Ramps and Ellipse fades to make bitmap images blend together
- Mirror (flip) and resize objects
- Add text to a project
- Adjust the transparency of objects

Step 1 - Creating the Background

- 1. Choose the object Create action on the Power Panel. You must specify a Region and a Tool to create your background object.**



- Select the Rectangle Region .
- Select the Color Fade Fill.

- 2. Determine the size, and create the background.**

- Move your mouse pointer to the top left corner of the blank workspace.
- Press and hold the left mouse button while dragging your mouse to the bottom right corner.
- Release the Left Mouse button.
- A rectangular shaped object will appear on the workspace filled with the default Color Fade.

- 3. Change the color of the top left corner of the Color Fade to white.**

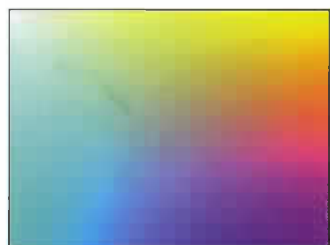
- With the object selected press the Color Selection button in the Tool area on the Access Bar.
- Select the button that represents the top left corner.
- Enter the value 255 in ALL of the RGB color settings or move each of the Red, Green and Blue color sliders completely to the right - this will yield the color white in the corner.
- Click on the Color Selection button to close the dialog.

- 4. Name this object 'Background'.**

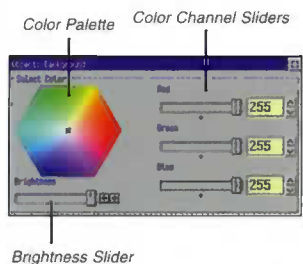
- In the object Settings area on the Access Bar, delete the default name 'RectCfade'.
- Type in the new name 'Background' for your object.

Step 2 - Adding Bitmap Images

Using the Power Panel controls (as you did for the 'Background' object), create the following objects, and position them as indicated below. Be sure to correctly choose the region from the Power Panel, as indicated:



1



1



1

1. Create 'Couple' object - use a Ramp Region, filled with a bitmap image.

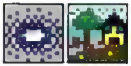


- Use 'COUPLE.TGA' as the bitmap fill. You will find this image in the TSPECTRA\TUTORIAL directory.
- Using the Power Panel, make this new object approximately the same size as the background, and position it directly on top of it.
- Name this object 'Couple'.
- Resize the background by first selecting the background object. Next, place the mouse pointer over any side of the background object until the resize pointer appears. Move the mouse to adjust the background to match the size of the object 'Couple'.

2



2. Create 'Mountain' object - use an Ellipse Fade Region filled with a bitmap image.



- Use 'MOUNT.TGA' as the bitmap fill. You will find this image in the TSPECTRA\TUTORIAL directory. Reposition if necessary and name this object 'Mountain'.
- Create this object in the top left corner of your project.
- Try stretching the object by first pressing the miscellaneous settings button on the Access Bar and turning off the Aspect Ratio. Then move the mouse pointer over one side and while pressing the Right Mouse button, drag the edge off the bitmap object.

2



3. Create 'Seagull' object - use an Ellipse Fade Region filled with a bitmap image.

- Use 'SEAGULL.TGA' as the bitmap fill. You will find this image in the TSPECTRA\TUTORIAL directory. Reposition if necessary and name this object 'Seagull'.
- Create this object below, and to the right of the Mountain object.
- Try adjusting the density of the ellipse by choosing the Ellipse Fade settings button on the Access Bar.

4. Create 'Waterfall' object - create an ellipse fade filled with a bitmap image. Flip the object.

- Use 'WTRFALL2.TGA' as the bitmap fill. You will find this image in the TSPECTRA\TUTORIAL directory.
- Create this object in the top right corner of your project.
- Place the pointer on the right hand corner of the WTRFALL.TGA bitmap, click and hold with the Left Mouse button then drag the pointer to the left until the image is flipped. Reposition to the right hand corner.
- Name this object 'Waterfall'.

Step 3 - Inserting a Text Object

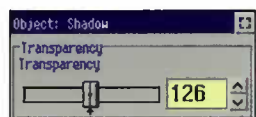
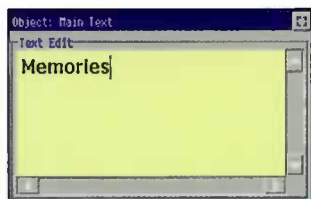
1. Enter the object Create action on the Power Panel.



- Choose the Headline Text Region.
- Choose the Solid Color Tool.

3





2. Determine the size, and create the text object.

- Move your mouse pointer to the bottom quarter of the bitmap image your workspace.
- Drag out a rectangle that covers approximately the bottom quarter of the bitmap.
- Release the left mouse button and the word 'Headline' will appear.

3. Replace the word 'Headline' with the word 'Memories'.

- Make sure the text object is selected.
- Select the Text Edit button in the Region area on the Access Bar.
- In the Text Dialog that appears, delete the word 'Headline' by highlighting and deleting, then type in 'Memories'.

4. Change the Font of the Text.

- With the word 'Memories' still selected, select the Edit Font button in the Region area on the Access Bar.
- From the Font Selection dialog that appears, choose 'Times New Roman Bold Italics' from the list of available fonts.

5. Name this object 'Main Text'.

Step 4 - Adding a Shadow to the Text

1. Duplicate the Text object called 'Main Text'.

- Make sure that the Text object is selected and anywhere on the workspace, click once with your Right Mouse button to display the Context menu.
- From the Object Management Flow Through menu displayed, select 'Duplicate'. A second Text object will be created, and placed directly on top of the original. Name this duplicate object 'Shadow'.

2. Make the shadow 50% transparent - this will be the shadow of the word 'Memories'.

- From the object Settings area on the Access Bar, press the Transparency button.
- Use the Transparency slider to make the object 50% transparent.

3. Move the 'Shadow' object to the Left and Down about 1/4 of an inch (so it still looks like it is mostly on top of the 'Main Text').

- Place the mouse pointer directly over the new object (that is selected automatically when it is duplicated).
- When the mouse pointer changes to a 4-headed arrow, hold down the Right Mouse button and move the mouse to the left - this will move the object on the workspace to the left.

4. Place 'Shadow' behind 'Main Text' and change its color.

- With the duplicate object still selected, display the Main Menu (click once on your workspace with the Right Mouse button).
- Select the 'Object Order' Flow Through menu, then select 'Push Backward'.
- Next, select the Color Selection button from the Tool area on the Access Bar and choose a new color for the shadow.

Making 3-D Text Float

In this Tutorial, you will:

- Change the color of an object
- Insert a Text object
- Add depth to an object
- Create text that appears to be three dimensional
- Make an object appear to float on the workspace



Tutorial 4

Step 1 - Creating the Background



1. Choose the object Create action on the Power Panel.

- Select the Rectangle Region .
- Select the Solid Color Tool.

2. Determine the size, and position of the background.

- Move your mouse pointer to the top left corner of the blank workspace.
- Press and hold the left mouse button while dragging your mouse to the bottom right corner; release the Left Mouse button.
- A rectangular shaped object will appear on the workspace filled with the color purple (this is the default color for an object created with the Solid Color Tool). The default color can be changed by selecting a new color from the Access Bar BEFORE or AFTER the object is created.



3. Make the background green.

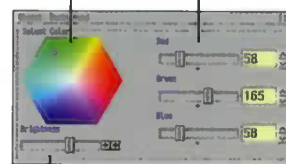
- Select the object and press the Color Selection button in the Tool area on the Access Bar.
- Select a shade of green from the edge of the color wheel by clicking on it once with your left mouse button. Use the Brightness slider to make the green a medium shade, rather than a bright shade of green.

4. Name this object 'Background'.

1



Color Palette Color Channel Sliders



Brightness Slider

Step 2 - Creating and Inserting a Text Object



1. Choose the object Create action on the Power Panel to create an object made up of a Headline Text Region and the Solid Color Tool.

2. Position this Text object in the center of your workspace, and make it approximately two thirds the width of the background object.

- The word 'Headline' will appear on your workspace.

3. Make the color of the text a medium shade of Purple.

- Close the Select Color dialog.

2






4. Replace the word 'Headline' with '3D TEXT'.

- Make sure the text object is selected.
- Select the Edit Text button in the Region area on the Access Bar.
- In the Text Dialog that appears, delete the word 'Headline', and type in '3D TEXT'.



5. Make the font of the text 'Times New Roman Bold'.

6. Name this object 'Main Text'.

Step 3 - Giving Your Text Depth

1. Make a duplicate of 'Main Text'.

- Make sure that the Text object is selected.
- Anywhere on the workspace, click once with your Right Mouse button to display the Context Menu.
- From this menu, select 'Duplicate'. A second Text object will be created, and placed directly on top of the original.

2. Name the new object 'Depth Text'.

3. Change the color of the duplicate text object (make it dark purple).

- Make sure that the duplicate object is selected (by default, it is selected automatically when it is duplicated).
- Press the Color Selection button in the Tool area on the Access Bar.
- Simply move the Brightness Slider on the Color Selection Dialog to the left to make the text appear darker than the original text object.



4. Place 'Depth Text' object behind 'Main Text'.

- With the duplicate object still selected, display the Context Menu (click once on your workspace with the Right Mouse button).
- From the menu that appears, select 'Object Order and Position', and then select 'Push Backward'.

5. Move the duplicate text object to the left slightly.

- With the pointer over a selected object, press the Right Mouse button and drag the object.

Step 4 - Giving Your Text a 3-D Effect

1. Make another duplicate of 'Main Text'.

2. Name the new object '3-D Effect'.

3. Change the color of the new text object (make it light purple).

- With the new text selected, press the Color Selection button in the Tool area on the Access Bar.
- Move the Brightness Slider on the Color Selection Dialog to the right to make the text appear lighter. If it is not bright enough, move the



3



4

selector in the Color Wheel closer to the middle, but still within the purple Region.

4. Place the '3-D Effect' object behind the 'Main Text' object by changing the object Order.

5. Move this text object to the Right slightly.

Step 5 - Making Your 3-D Text Float (shadow effect)

1. Make a duplicate of the 'Main Text' object.

2. Name this object 'Shadow'.

3. Move the Shadow.

- Move this object approximately 1 inch down, and 1 inch to the left.

4. Make the Shadow 50% Transparent.

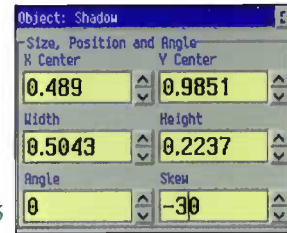
- From the object Settings area on the Access Bar, choose the Transparency button.
- Move the Transparency slider until it is set at 50% transparency.

5. Place the shadow behind the 3 other text objects.

- Change the object order of the Shadow Text object, pushing it backward until it appears just behind each of the 3 layers of text already on the workspace.

6. Slant the shadow.

- From the object Settings area on the Access Bar, select the object 'Size, Position and Angle' button.
- In the Skew field, enter the value -30 to make the text appear slanted to the left.



For the Adventurous

Creating Blurred Shadows & Bulged Text Tricks

A blurred drop-shadow technique is used very frequently in the industry and will be covered in a stepwise, and more extensible fashion in conjunction with Custom Regions in a later Tutorial. But for those that wish to jump the gun, try these simple steps: (Note: Blurs and sharpens are very computationally intensive, if you do not have a fast system, be patient.)

- Create an object, called 'Blur', covering all the text above with a Rectangle Region and a Blur Effect. Then move it back so that it is just in front of the 'Shadow' text object.
- Make the 'Shadow' object 0% transparent and remove the slant you previously applied. Then increase the radius of the 'Blur' object until you have a nice soft shadow.

To make this text have a cool bulge:

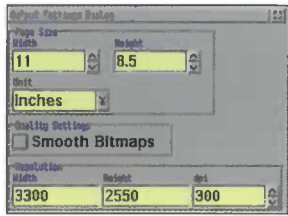
- Delete the object 'Background' and ensure that the 'Shadow' text is not poking out too far outside of the foreground text objects (move the 'Shadow' if necessary). Then create a new blur on top of all objects. Adjust the Blur Radius so that the original blurred shadow and the foreground text objects just combine.
- Create an object on top of all other objects with a Rectangle Region and Sharpen Effect. Adjust the Sharpen Radius and Harshness to get a bulged or other cool effect.
- Try adding an object with a Wave Effect on top!



Creating a Simple Frame

In this Tutorial, you will:

- Adjust the Output Settings of the workspace
- Use only part of a bitmap image (crop)
- Tile a bitmap image to create a background pattern
- Create a Frame and Border for a photograph



1

Step 1 - Make the Workspace a Portrait Orientation

1. Change the output settings of your workspace.

- On any part of the workspace, click once with the Right Mouse button to display the Context Menu.
- From this menu, select 'File', then Output Settings from the Flow Through menu. This dialog allows you to change the height, width, measurement, and dpi (dots per inch) of your image.
- To make the pink output rectangle your desktop appear in the portrait orientation (by default, it is in the landscape orientation):
make the height of the output area 11 inches;
make the width of the output area 8 1/2 inches.



2

Step 2 - Creating the Background Pattern

1. Use the Power Panel to create a Rectangle Region filled with a Bitmap Tool.



- Use 'KOALA.TGA' as the bitmap fill. You will find this image in the TSPECTRA\TUTORIAL directory.
- Make this object large enough to cover all of your workspace - this will be the main frame for the photograph.
- Name this object 'Background Pattern'.

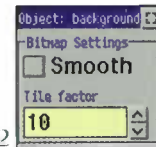
2. Use part of the tree's leaves in the photo as the frame content (this is called cropping the image).



2

3. Tile the cropped area to create the background pattern.

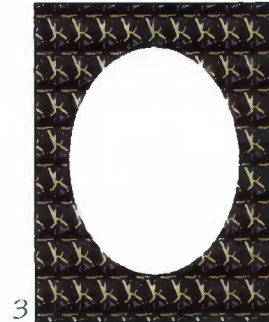
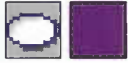
- Press the Bitmap Settings button in the Tool area on the Access Bar.
- Enter the value 10 in the tile factor field.
- Close the Bitmap Settings dialog by repressing the button.

**4. Make the Background Pattern 25% Transparent.**

- Press the Transparency button in the object Settings area on the Access Bar.
- Move the slider to the right until you reach 25% transparency.

*Step 3 - Create a Two Piece Border for the Photograph***1. Create a white Ellipse object.**

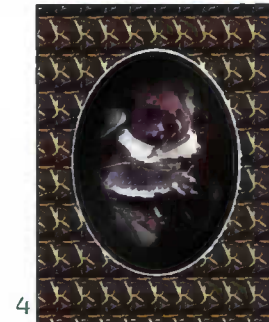
- Create this object using the Create object mode on the power panel, and choosing the Ellipse Region and the Solid Color Fill. Draw out the marquee region on the Background Pattern.
- With the object selected, change the color of the ellipse object from the default purple to white using the Color Selection button in the Tool area on the Access Bar.
- Size and position this object so that there is about 1 inch of the Background Pattern showing on each side, and at the top and bottom of the ellipse.
- Name this object 'White Ellipse'.

**2. Create a Color Fade, Ellipse object.**

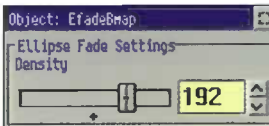
- Create this object by duplicating the 'White Ellipse'.
- Change the Fill of the object from Solid Color to Color Fade by choosing object Edit mode on the Power Panel and selecting the Color Fade fill.
- Using the Color Selection button in the Tool area on the Access Bar make the:
 - Top Left and Bottom Right corners black (move the brightness slider to the far left).
 - Top Right and Bottom Left corners dark green (select green on the color wheel, and move the brightness slider to the left until you achieve dark green).
- Name this object 'Photo Border'.
- Resize 'Photo Border' so that about 1/4 inch of the 'White Ellipse' peeks out from each side.

**3. Group the 'White Ellipse' and 'Photo Border'.**

- Draw out a rectangle to contain both the 'White Ellipse' and the 'Photo Border' objects.
- Select 'Group contained objects' from the Automatic Menu.

*Step 4 - Insert the Photograph***1. Using the Power Panel, create an Ellipse Fade filled with a bitmap in a size and position that will fit within the Photo Border you just created.****2. Use 'KOALA.TGA' as the bitmap fill and adjust the crop area as desired.****3. Adjust the Ellipse Fade Density to make the photo more visible.**

- Press the Ellipse Fade settings button in the Region area on the Access Bar.
- Move the Density Slider to the right to increase the opacity of the photograph.





Changing a Color Photograph

In this Tutorial, you will:

- Change a color image to a black & white image
- Change a color image to a duotone (two tone) image



1

Step 1 - Loading the Bitmap Image (Photograph)

1. Use the Power Panel to create a Rectangle Region filled with a Bitmap Tool.



- Use 'BOYS.TGA' as the bitmap fill. This image can be found in the TSPECTRA\TUTORIAL directory.
- Make this object large enough to cover most of your workspace - it is the only object you will be working with in this tutorial.
- Name this object 'Main Image'.



2

Step 2 - Changing the Photograph to Black & White

1. Duplicate the bitmap Image of the Boys.

- Leave the duplicate object on top of the 'Main Image' object. This duplicate object will be adjusted to make the photograph appear black and white.
- Name the duplicate object 'Black & White'.



2. Change the Bitmap Tool of the duplicate object to a Grayscale Tool.

- With the 'Black & White' object selected, choose the object Edit mode on the Power Panel.
- Select Grayscale as the new Tool for this object.



3

Step 3 - Make a Black and White Photo a Duotone

1. Duplicate the object named 'Black & White'.

2. Name the new object 'Duotone'.



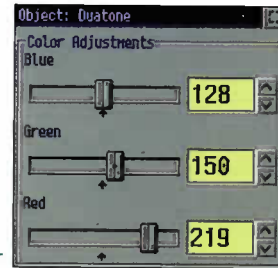
3. Using the Power Panel, change the applied tool to Contrast & Brightness.

4. Edit the Contrast & Brightness effect to add a hint of color to the photo.



- With the 'Duotone' object selected, press the Color Adjustment button in the Tool area on the Access Bar.
- Move any ONE of the color sliders slightly. Notice that your image will now appear in different shades of that color.

Hint: Use the RED slider to achieve an old, rusty effect - or as professional photographers call it, a sepia tone.



For the Adventurous

Fun With Contrast, Brightness and Color Adjustments

In the above Tutorial, a very traditional color adjustment is made using the 'Contrast...' Effect. This Tool, however, also makes it very easy to create visually wild bitmaps or even negative versions of bitmaps — all useful for Internet Web pages, home entertainment and business presentation purposes. To experiment:

- I think this is supposed to be RGB*
- Delete the object 'Black & White' and then select the object 'Duotone'. From the Access Bar, open and drag off all three 'Contrast...' control dialogs and set all sliders to their middle positions. *What graph? In colour curves.*
 - To create a negative image, position your pointer over the graph of the curves, ensure that the black square below the curves is highlighted, and draw a line from the upper left corner to the lower right corner. This takes all the dark tones (normally represented on the graph in the lower left corner) and makes them light and vice versa.
 - To create crazy colors, randomly select a red, green or blue color square and create a random color response curve for the selected color.
 - To see only one color at a time, flatten the other two colors across the bottom of the graph while either leaving the desired color's curve sloping from the lower left to upper right or simply move the sliders for the two unwanted colors to the 0 point while centering the third, wanted color.

Color curves are also very useful when creating masks in a Custom Region and may be placed on top of blurs for even more interesting effects. After completing the next Tutorial, you may wish to load a bitmap into the Custom Region and place a Contrast object over it to see how it ~~effects~~ *affects* your Project.

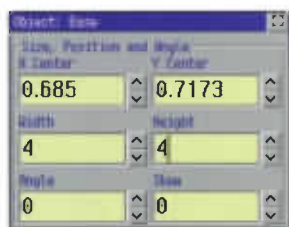
Tutorial 7



Creating a Reusable Object

In this Tutorial, you will:

- Create a simple object using duplicate shapes, color, wave effects and object manipulation
- Save a grouped object
- Create a Mask using a Custom Region
- Load a previously saved object archive file



Step 1 - Create the Base

1. Create a circle using an Ellipse Region and the Solid Color Tool.



- With the object selected, press the object Size, Position and Angle button in the object Settings area on the Access Bar.
- In the dialog that appears enter identical values for the object Height and Width to make a circle.
- Make the circle 4" in diameter and place it in the middle of your workspace.



2. Change the color of the circle to a shade of yellow.

- Use the brightness slider to achieve a bright yellow color.
- Move the Color Selector dialog by pressing and holding with the Left Mouse button anywhere on the dialog background. Move the dialog to the left most part of the screen.

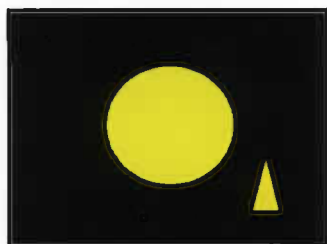
3. Name this object 'Base'.

Step 2 - Creating a Sun Ray

1. Create a yellow triangle using a Triangle Region and the Solid Color Tool.



- Make this triangle approximately 1/2 inch wide and 1 inch tall anywhere on the workspace. Make this the same color yellow as the base in Step 1. Compare the color values in the dragged off Color Selector dialog with the dialog of the selected object. Use the up/down arrows to adjust the values accordingly.
- Close both Color Selector dialogs.



2. Duplicate the yellow triangle.

3. Change the Region and the Tool of the duplicate triangle using the object Edit mode on the Power Panel.



- Make the Region a Rectangle.
- Make the Tool a Wave.
- Adjust the Amplitude and Frequency of the wave to make the ray appear more wavy. To do this, press the Wave Settings button in the



Tool area on the Access Bar. Use 0.75 for the frequency setting and 0.25 for the amplitude setting.

- Try moving, rotating and resizing the wave object to see the difference these minor adjustments have on the underlying object (in the final project shown, the wave was rotated by 90 degrees and resized to fit over the triangle perfectly).

2



The rising arrows are reversed! ↗ means vertical and ↘ means horizontal.

4. Group the yellow Triangle, and the Wave object.

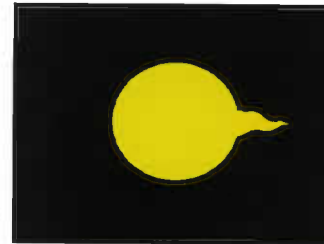
- Press and hold the Left Mouse button while dragging out a rectangle on the workspace that contains both of the objects.
- Release the Left Mouse button.
- From the menu that appears, select Group contained objects. Now you can duplicate and move the two objects as one.

5. Name this object 'Sun Ray'.

Step 3 - Adding Sun Rays to the Base

1. Move the 'Sun Ray' created in Step 2 so that it looks as though it is shooting out of the round base object. Position as necessary.
- To rotate the 'Sun Ray', move your mouse pointer to one corner of the object. When the mouse pointer changes to the Rotate Pointer, press and hold the Right Mouse button while moving your mouse in the direction for the desired rotation.

3



2. Duplicate 'Sun Ray', and position it next to the original. You may have to rotate it again.

These two steps must be repeated 12 times, or until you have enough sun rays to make the object look like a sun.

3. Move the round base to the front of the object order. This will ensure that all of the waves from the sun rays do not affect the appearance of the 'Base' object.

4. If you want to add a "hot spot" on the sun, create a white Ellipse Fade object and position it over the 'Base' object.

3



5. Group all of the objects on the workspace.
 - Name the grouped object 'Mysun'.

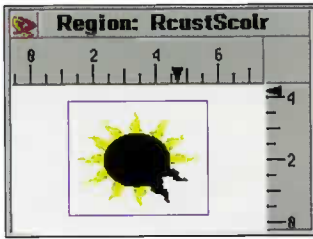
Step 4 - Saving the Sun Object

1. Select the grouped object on the workspace.
2. Click once with the Right Mouse Button.
3. From the menu that appears, select File object...
4. When prompted, enter a drive, directory and file name for the saved object.

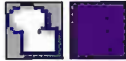
NOTE: Compound objects in Photo>Graphics are saved with the file extension '.ORC' so that they may be used in other Projects.

5. Move the object 'Mysun' to the left of the workspace.

Step 5 - Convert the object 'Mysun' Into a Mask for Later Use



5



1. Select the grouped yellow sun object on your workspace and copy it to the clipboard.

- Click once with the Right Mouse button, and select 'Clipboard', then 'Copy'.

2. On the same workspace as the object 'Mysun', create an object using a Custom Region and a Solid Color fill.

- Make the color of this object Black.

3. Edit the Custom Region.

- Open the Custom Region work area, and paste the yellow sun from the clipboard. To do this, click once with the Right Mouse button inside the Custom Region work area, choose 'Paste' from the menu.

- Check that the Custom Region object on the workspace has a width and height of 4 inches respectively.

- In the Custom Region work area ungroup the object until all of the pieces are free (the waves and triangles must all be separated). To do this, select the grouped object within the Custom Region work area, click once with the Right Mouse button, and choose 'Ungroup' from the 'Object Management' Flow Through Menu. Repeat for each sun ray.
- Change the color of all solid color objects in the Custom Region work area to black. The object on your screen should appear as a solid black sun. You can try moving this object on the workspace and changing the color of it. See how it now operates as one single object, even though it is ungrouped and has 29 pieces inside the Custom Region! This is how to easily create Masks using Custom Regions.

- To make the sun blurry, place a Rectangle Region, Blur object over the entire sun in the Custom Region. Adjust as necessary.

4. Save the Custom Region, Solid Color object.

- Select it, and choose 'File' then 'Save object' from the Context Menu.

- Name this object 'SunMask.orc'.

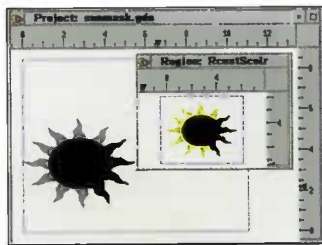
You will be using this object in tutorial number 14.

Step 6 - Loading a saved object.

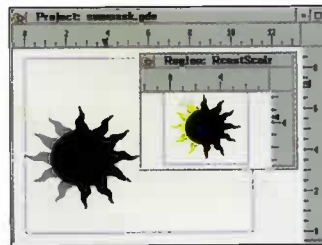
1. Draw out a rectangle on a blank portion of the workspace to load in an '.ORC' file. From the Automatic Menu which appears, select 'Load object'.

3. Select from the directory dialog the file 'TSUNU.ORC'.

4. Compare our sun with your sun. Experiment with ungrouping our sun to see what we have added. Do this by selecting the object and clicking with the Right Mouse button. Select 'Ungroup'.



5



5

In the 'Region: RcustScolr' window, zoom out to see the black sun and a pink square that represents the custom region. Select all pieces of the black sun and group them. Now it is possible to move the black sun into the pink square. Once it is in the pink square it will show up on the custom region on the workspace. You can now ungroup the objects in 'Region: RcustScolr' and back in the workspace you can move the custom area and all the parts move as one.

Creating a Glowing Object

In this Tutorial, you will:

- Load a previously saved object to create a new project
- Use the Blur Tool to make an object appear to glow
- Use object manipulation



Tutorial 8

Step 1 - Create the Background



1. Create an object out of a Rectangle Region and a Solid Color Tool.

2. Make this object the full size of your workspace.

3. Make this object black.

- Select the Color Selection button and from the dialog that appears, move the Brightness slider all the way to the left. Note how the numerical Color values change. For black, the Color values should all read zero.

4. Be sure the object is selected and name this object 'Background'.



Step 2 - Create the Glow Effect

Part One:

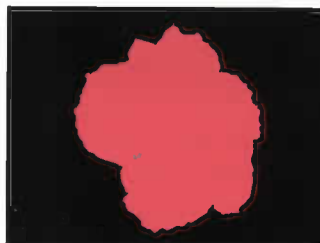
1. Load a previously created object that has a unique shape (for this tutorial we have created an object for you to use called 'FLOWER.ORA').

- To load a previously created object, hold down your Left Mouse button and draw out a rectangle on your workspace.
- Release the Left Mouse button when you have reached the approximate size that you would like the object to appear.
- From the Automatic Menu that appears, select 'Load object'.
- From the dialog that appears next, choose the object you wish to load. For this tutorial, load 'FLOWER.ORA'. You will find this file in the TSPECTRA\TUTORIAL directory.

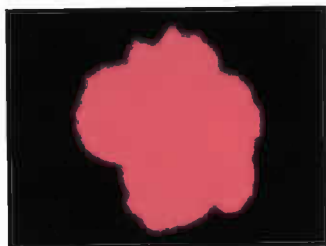
2. Change the Tool of the object to Solid Color.

3. Change the color of the object to a shade of medium pink.

4. Name this object 'Pink Glow'.



This is cool after having loaded a bitmap. BUT! It needs to have been processed somehow beforehand. It is a live draw again and a bitmap tool.



Part Two:



1. Create an object from a Rectangle Region and a Blur Tool.
2. Make this object large enough so that all of the edges of the Pink Glow object are blurred.
3. Name this object 'Blur'.

NOTE: With no objects selected, group the 'Pink Glow' and the 'Blur' objects so that they can be resized later if necessary.

Step 3 - Insert the Main Object



1. Load the 'FLOWER.ORG' file into your project again.
2. Name this object 'Flower'.
3. Size and position the 'Flower' and the 'Blur' object so that the 'Flower' fits within the glowing backdrop on the black background. Leave about 1/4 inch of the Pink Glow shining out around all edges of the 'Flower'.

NOTE: In Step 2, Part One, you loaded the file 'FLOWER.ORG' which we had created for you to use in this Tutorial. Tutorial number 16 details the steps necessary to create a similar object.

For the Adventurous

The Importance of Softness

Masks in traditional photo or pixel editors are created on a pixel basis which typically require vast amounts of memory to effectively support the next generation of high-resolution (720 dpi) inkjet printers. ColorWave supports resolution-independent, vector-draw based masks to overcome traditional limitations and offers an additional benefit that the edges of these masks, and in fact, all User Draw Regions (which you will learn more about in Tutorial 16), can be interactively softened or hardened at any time depending on design requirements.

In the above Tutorial, it was a fairly simple matter to load the flower mask and use a blur object to soften its edges. But what would happen if you did not also want the 'Background' blurred? As you have probably noticed, a blur does not just blur the object immediately underneath, but blurs all objects underneath. Some readers, possibly having already read a few Tutorials ahead, may answer that the problem can be easily solved by placing the flower mask in a Custom Region and blurring the contents of the Region (and then combining the Region with a Solid Color or Bitmap Tool).

Blurs, however, blur both inward and outward (ie. they mix colors equally from all directions). If you had carefully masked the flower from green foliage, the blurred Region, in fact, would expand outside of your careful mask and include some of that green material which would show up as a dirty haze if you placed the flower against a light background. The answer is softness.

Softness is a setting on all User Draw Regions which specifies how much to soften the edges towards the inside only! To see how it works, select the 'Flower' object in the above tutorial and increase its Softness.

Where is the control?
There is one - called name/pen settings... but it does not change the flower.
It is on the Access bar/region

Creating a Raised Border

Tutorial 9

In this Tutorial, you will:

- Use a Custom Region to create and edit objects
- Use duplicates, contrast and brightness and colors in a Custom Region
- Apply the work in a Custom Region to a bitmap



Step 1 - Load the Image on Your Workspace



1. Create an object using a Rectangle Region and the Bitmap Tool.

2. Choose 'BOYS.TGA' as the bitmap image. You will find this file in the TSPECTRA\TUTORIAL directory. You may also use one of your own bitmap images if you wish.

3. Name this object 'Main Image'.

1



Step 2 - Create a Shadow for the Raised Frame



1. Create an object using a Custom Region, and the Solid Color Tool that is the same size as the bitmap already on the workspace.

- Select the object, and begin to make it black by removing all brightness from any color using the Color Selector dialog.

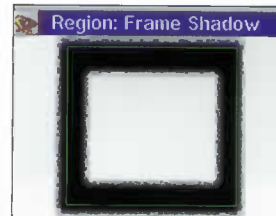
NOTE: This object will appear invisible until defined or edited.

- Name this object 'Frame Shadow'.

2. Edit the Custom Region - these edits will be visible on the screen as they are made.

- Select the Edit Custom Region button in the Region area on the Access Bar. A small work area will appear - this is where you define the contents of the 'invisible' Custom Region. The pink boundary in this small area represents the area of the Custom Region object on your workspace.
- Create an object within this work area from a Rectangle Region, and a Solid Color Tool. This will make the 'Frame Shadow' object visible, and it will temporarily cover the 'Main Image' on your workspace. Still working in the Custom Region work area:

2



2



- Make this object black;
- Make this object fill the entire work area (it can extend over the pink boundaries if necessary).
- Create another object from a Rectangle Region and the Solid Color Tool on top of the black rectangle in the Custom Region work area.
- Make this object white.
- Leave enough space between the edges of the white rectangle and the pink boundary in the Custom Region work area to form a dark border around the edges of the bitmap image on screen.
- Duplicate the black rectangle in the Work area for the Custom Region.
- Change the fill of this object from a Solid Color to a Blur.
- Close the Edit Custom Region window.

I do not understand why white makes it see-through. I would have expected it to cover the picture in white with a black frame.



3



Step 3 - Create the 'Raised' Effect

1. Duplicate the 'Frame Shadow' object.

2. Name this object 'Raised Frame'.

3. Change the fill of this object from Solid Color to Contrast & Brightness.

4. Increase the Brightness of this object to its maximum level.

- Press the Contrast & Brightness Controls button in the Tool area on the Access Bar, and increase the Brightness to the maximum level using the slider.

5. Delete the Rectangular Blur object in the Custom Region of this 'Raised Frame' object.



3

Now does not look like this. I lost this good. I am not sure what happened on p43, perhaps I have to move objects to the front or to the back.

I added some red to frame shadow and it looks a little better but the photograph is too dark. Also change its transparency; changed custom area color from black to grey.

For the Adventurous

Power Users Love Custom Regions

Yes, we agree, Custom Regions are often tricky, but once you have one created, there is no end to its uses when comparing design scenarios. Try these steps:

- Change the Tool of the 'Raised Frame' to Bitmap, set the tile factor to 8, and use the Crop control to select part of the bitmap for tiling. Compare this with the result of Tutorial 5.
- Change the Tool of the 'Raised Frame' to Custom Tool. Put a selection of objects in the Tool window or try Freehand Draw.

Adding Special Effects to a Photograph

In this Tutorial, you will:

- Create and edit objects in a Custom Region
- Create a silhouette effect
- Add soft, semi-transparent three dimensional text to a project



Tutorial 10

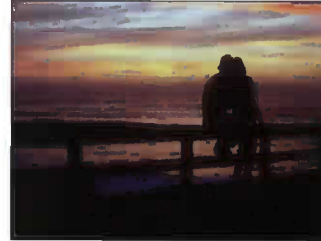
Step 1 - Load the Image on Your Workspace



1. Create an object using a Rectangle Region and the Bitmap Tool.

2. Choose 'COUPLE.TGA' as the bitmap image. You will find this file in the TSPECTRA\TUTORIAL directory. You may also use one of your own bitmap images if you wish.

3. Name this object 'Main Image'.



Step 2 - Create a Blurred Frame



1. Create an object using a Custom Region, and the Solid Color Tool that is the same size as the bitmap already on the workspace (this will be the frame for the image).

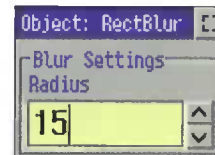
- Press the Color Selection button on the Access Bar, and select a color for the frame.
- Name this object 'Blur Frame'.

2. Edit the Custom Region - these edits will be visible on the screen as they are made.

- Create an object within the Custom Region work area from a Rectangle Region, and a Solid Color Tool.
 - Make this object black;
 - Make this object fill the entire work area (it can extend over the pink boundary if necessary).
- Create another object from a Rectangle Region and the Solid Color Tool.
 - Make this object white.
- Leave enough space between the edges of the white rectangle and the pink object boundary to form a dark border around the edges of the bitmap image on the workspace.
- Duplicate the black rectangle in the Work area for the Custom Region.
- Change the fill of this object from a Solid Color to a Blur.
- Press the Blur Settings button in the Tool area on the Access Bar, and set the Blur Radius to 15.



2





3

Step 3 - Create a Special Silhouette Object

1. Load a new object over any part of the white rectangle object within the Custom Region work area.
 - In this tutorial, we have used 'FLOWER.ORG' from the TSPECTRA\TUTORIAL directory.
2. The flower should now appear on your large workspace as a silhouette in the same color as the blur frame.

Step 4 - Add Some Fancy Text to your Photo



3



1. Create an object using the Headline Text Region and the Solid Color Tool.

- Make the text black, and 50% transparent. This will allow some of the underlying image to shine through.
- Edit the text as you wish using the Text Edit controls in the Region area on the Access Bar.

2. Name this object 'Black Text'.



3. Duplicate the 'Black Text' object, and change the fill to Contrast & Brightness.

- Set the Brightness of this object to its maximum level using the Contrast & Brightness Controls in the Tool area on the Access Bar.

4. Name this object 'Bright Text'.

5. Move the 'Bright Text' object slightly to the right. This will allow the 'Black Text' to shine through the body of the 'Bright Text', while leaving a dark shadow on the left side. It will look almost three dimensional.

6. Group the two text objects together

- Resize and move them as one object.



4



4

For the Adventurous

Understanding Transparency in Custom Regions!

In Step 3 of the above Tutorial, the flower is loaded into a Custom Region and becomes a type of silhouette in the main Workspace. You cannot be considered a master of ColorWave, until you can effectively use the transparency of Custom Regions.

How does this type of transparency differ from the standard transparency available on all objects? Simply, in a Custom Region, the level of transparency of each individual pixel of the Region is dictated by its grayscale value. Thus, dark or black areas will "transmit" the fill or effect of their Tool while progressively lighter areas in the Region will progressively transmit less and less of their fill or effect. White areas in the Region will totally block any effect of the corresponding Tool.

Creating a Line Art Drawing

In this Tutorial, you will:

- Create a line art effect using gray scale as well as contrast and brightness

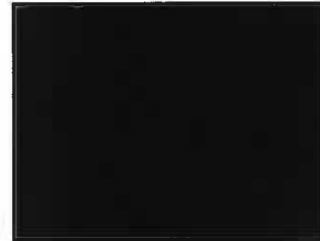


Tutorial 11

More comes out differently from this.

Step 1 - Create the Background

1. Create a background large enough to cover your entire workspace. Make the object a Rectangle Region with a Solid Color fill.
 - Make the color of the rectangle black.
2. Name this object 'Background'.



Step 2 - Adding a Bitmap Image

1. Create another object from a Rectangle Region and a Bitmap fill.
 - This object should be placed directly on top of the first, but smaller by approximately 1 inch on all sides. When prompted by the Source Bitmap dialog, select the 'HORSEBU.TGA' file in the TSPECTRA\TUTORIAL directory.
3. Name this object 'Horse & Buggy'.



Step 3 - Make the Bitmap Image Black & White

1. Duplicate the object called 'Horse & Buggy', and change the Tool of the duplicate object from a Bitmap fill to a Grayscale effect.
2. Name this object 'Black & White'.



Step 4 - Creating the Line Art Effect

1. Duplicate the 'Black and White' object, and change the Grayscale effect of the duplicate object to a Contrast & Brightness effect.
2. Press the Contrast and Brightness button in the Access Bar, and increase the Contrast to equal the value 240.





Creating 'Eye Popping' Text

In this Tutorial, you will:

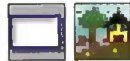
- Crop a bitmap image
- Use Contrast and Emboss Tools to create a textured background
- Use a Custom Region to add and edit text
- Use a Custom Tool and object archive file

Step 1 - Creating a Textured Background

Part One:

1. Make the object a **Rectangle Region with a Bitmap fill**.

Select **'FLWRFNC.TGA'** as the **source bitmap**. This image can be found in the TSPECTRA\TUTORIAL



2. Create a background large enough to cover your entire workspace. directory.

3. Crop the bitmap so that you are only using the **Flowers (and none of the fence)** in the image.

- Click on the Crop Area button from the Tool area on the Access Bar.
- In the Crop Area dialog, draw out a rectangle around the approximate area you wish to keep. Notice how the workspace bitmap is changed to reflect the crop. Repeat this step or resize and position the crop area as necessary.
- To make the cropped bitmap less pixelated, press the Bitmap Settings button in the Tool area on the Access Bar, then select Smooth.

4. Name this object **'Pattern'**.

Part Two:

1. Duplicate the object called **'Pattern'**, and change the Tool from a **Bitmap fill** to a **Contrast & Brightness Effect**.

2. Increase the **Contrast** to the maximum level. This will enhance the final appearance of the textured background.

3. Name this object **'Contrast'**.

Part Three:

1. Duplicate the object called **'Contrast'**, and change the **Contrast & Brightness effect** to an **Emboss Effect**.

2. Change the color of the emboss from gray to a shade of **lime green**.



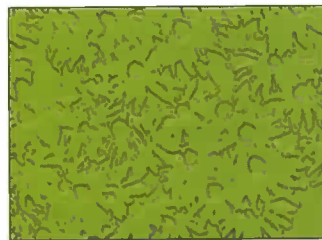
1
Part 1



Active Bitmap
Area



1
Part 2



1
Part 3



3. Name this object 'Emboss'

- Now that you have completed Parts One through Three in this first Step, group the objects. Name the grouped object 'Textured background' and save the object as 'texture.orc'. You will be required to use this object again in this tutorial.

I do not understand why this works!

Step 2 - Creating the Text Shadow



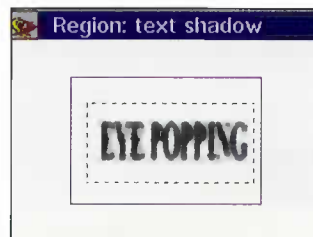
1. Create an object from a Custom Region and a Solid Color fill that is the same size as the 'Textured Background'.

2. Select and name this object 'Text Shadow'.

3. Make this 'Text Shadow' object black. Note that this is an invisible object and that you will not be able to see it until edited.

4. Edit the Custom Region.

- In the Custom Region work area, create a Headline Text Region filled with a Solid Color object. Make the text object in the Custom Region black. The text object should take up about a third of the work area, and should be centered.
- Edit the text to read 'EYE POPPING'. Choose a bold font.
- Create an object from a Rectangle Region and a Blur effect that completely covers the text object in the Custom Region work area. Select the object in the Custom Region and notice the default name 'RectBlur'. Close the Custom Region work area by double clicking with the Left Mouse button on the Custom Region close icon.



2



2

Step 3 - Create the 'Popping' Text

1. Select and duplicate the 'Text Shadow' object on the workspace and name it 'Popping Text'. Change the Solid Color fill to a Custom Tool fill.

2. Edit the Custom Region of 'Popping Text'.

- Inside the Custom Region, delete the object containing the Rectangle Region and Blur effect. You do this because the 'Popping Text' object has to have sharp edges to achieve the effect.

3. Reselect 'Popping Text' on the workspace and edit the Custom Tool.

- Press the Edit Custom Tool button in the Tool area on the Access Bar.
- In the Custom Tool work area that appears, load the object 'TEXTURE.ORB' you saved at the end of Step 1 (the textured background object). Make this object fill the area bounded by the pink border.

4. Reselect 'Popping Text' on the workspace and move this object up slightly, until the text appears to be 'popping' off the workspace.



3



3

I had to pull 'Popping Text' to the front before this worked.

Creating a Fading Background

In this Tutorial, you will:

- Change output settings
- Use a Custom Region to create a line art effect
- Add text to a project

Step 1 - Create the Background

1. Change the Output Settings so that the workspace appears in the Portrait orientation (as discussed in Tutorial 5).

2. Create an object from a Rectangle Region and a Solid Color Tool.

- This object should fill the workspace. Make the color of this object rather light - the sample shown is a 'lilac purple'.

3. Name this object 'Background'.

Step 2 - Convert a Photo to Line Art

1. Create an object using a Custom Region and a Solid Color fill.

- Make this object fill the workspace.

2. Name this object 'Line Art Image'.

3. Edit the Custom Region.

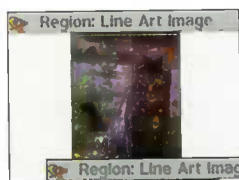
- Create an object that fills the 'Custom' Region work area. Make this object a Rectangle Region with a Bitmap fill. The image shown in the example is 'TABBY.JPG' from the TSPECTRA\TUTORIAL directory.
- Duplicate the object just created in the Custom Region work area, and change the fill from a Bitmap to a Grayscale effect.
- Duplicate the Grayscale object just created, and change the effect to a Contrast & Brightness. Adjust the Contrast so that it is set to about 245 and bring the brightness all the way up.

4. Change the color of the 'Line Art' Image object on the main workspace to black, and make it 65-70% transparent (increase the transparency if you want this image to appear even more faded).

- Resize the 'Background' to fit the 'Line Art Image'.



2



2



2



2



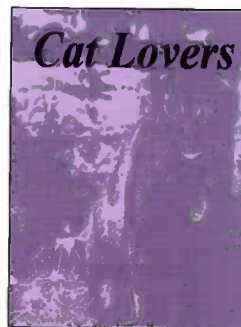
Step 3 - Add Some Text



1. Add text to the project using a Headline Text Region and a Solid Color fill.

- Choose a color that stands out on the background you created.

2. Duplicate the text object you just created. Change the object order, transparency and skew of the new object to create a Text Shadow.



For the Adventurous

Creating Splashy Backgrounds With Sharpness Effects

It is often effective to start with a very vivid composition to quickly create professional page backgrounds. What do we mean? Just follow these steps:

- Load the cat from the above Tutorial or other bitmap into a new Workspace.
- Duplicate it and change the new object's Tool to a Contrast effect. Significantly increase the contrast of the image.
- Duplicate again and change the new object's Tool to a Blur effect. Significantly blur the image.
- Duplicate again and change the new object's Tool to a Sharpen effect. Adjust the sharpness radius and harshness until you get a splashy image.
- To create the final page background, duplicate again and change the new object's Tool to a Solid Color fill. Choose a darker color like black, deep blue or deep red. Adjust the transparency to suit your needs.
- For fun, try cropping (with the crop dialog) the original bitmap to the area of the cat's eye and setting the tile factor to 15 x 15. Alternatively add a Wave on top!

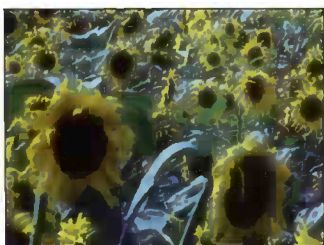
Sometimes, just over sharpening an image without the other objects above can give you an interesting effect. Try placing a Sharpen or Blur/Sharpen combination over the result of Tutorial 11.

SUNFLOWERS, beautiful sunflowers make the summer days warm and sunny

Creating a Screened Text Image

In this Tutorial, you will:

- Use a cropped bitmap as a Tool
- Use a Custom Region to create and edit text
- Load an object archive file and reposition objects
- Create a screened text effect



1

Step 1 - Create the Background



1. Create an object from a Rectangle Region and a Bitmap Tool.

The sample shown uses 'SUNFLWR2.TGA' as the source bitmap, and can be found in the TSPECTRA\TUTORIAL directory. The sample bitmap has been cropped to show just a small portion of the image.

2. Name this object 'Background'.

Step 2 - Create the Screen Text Effect

Part One:



1. Create an object using a Custom Region and a Solid Color fill. Make this object the same size as the 'Background'.

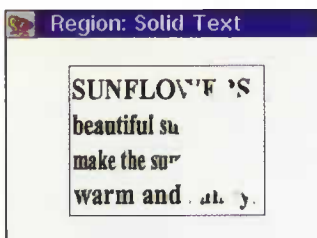
2. Name this object 'Solid Text'.



3. Edit the Custom Region.

- Create an object that fills most of the Custom Region work area. Make this object a Headline Text Region with a Solid Color fill.
- Edit the caption - You can use the same text as shown in the sample, or insert your own.
- The text used in this Tutorial is:

*SUNFLOWERS
beautiful sunflowers
make the summer days
warm and sunny*

2
Part 12
Part 1

- Adjust the other text settings if you wish.
- Make the color of the text in the Custom Region black.
- Load an object into the Custom Region work area. Use the file 'SUNMASK.OCR' you created and saved in Tutorial 7; when loaded, make the object white. Alternately use 'WHITESUN.OCR' that can be

found in the TSPECTRA/TUTORIAL directory. Whatever the object you use, this object must be WHITE, and must cover a portion of the black text already in the work area.

4. Close the Edit Custom Region work area, and change the color of the 'Solid Text' object to a bright yellow.

Part Two:

1. Duplicate the 'Solid Text object'.

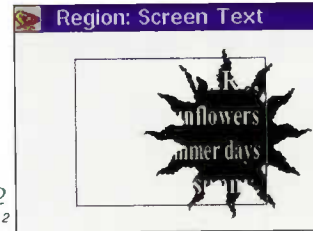
2. Name this object 'Screen Text'.

3. Edit the Custom Region of 'Screen Text'.

- Change the color of the Headline Text to white.
- Select the white sun object duplicated in this Custom Region and use the Color Selector to make this object black.
- Change the object order of the sun - push it back once so that the Text Region overlaps it.

It is easier to read if I make the transparency of the text in the custom workarea to ~30%.

2
Part 2



2
Part 2

For the Adventurous

Tricky Effects Pay Big Dividends

Yes, there are more than a few places where one could go wrong in the above Tutorial, but the results of a properly executed effect often pay off in the long run.

Why? Visuals in a presentation, on the Internet, or even in a family setting are often more closely studied and understood than the written or even spoken word. Project visual quality and energy and your audience will perceive that you have given an equal degree of quality and energy to the study of the topic at hand.

The ColorWave render engine makes it easy to turn your Projects into professional quality images — at any resolution. If in doubt, use this Tutorial! Substitute a photograph of your firm's new product (easily done, just have your roll of film processed to PhotoCD format, then load the image from CD) and use the sun or another symbol recognized by your peers. Replace the text with your message, and then choose 'File', 'Save Rendered' to produce a bitmap for use on the first screen of your next presentation, your Internet home page, or even as a screen background. The results will speak for themselves.



Enhancing Text and Object Combinations

In this Tutorial, you will:

- Use a Custom Region to create a text and object combination
- Use a Custom Tool to enhance and manipulate bitmaps from a Custom Region

Step 1 - Create the Background



1. Create an object from a Rectangle Region and a Bitmap Tool.

- The sample shown uses 'CITYNITE.TGA' as the source bitmap, and can be found in the TSPECTRA\TUTORIAL directory.



2. Duplicate the bitmap image, and change the fill to a Contrast and Brightness effect.

- Reduce the brightness to make the image appear darker. This will help the yet to be added contrasting text stand out more.

3. Group the two objects and name the grouped object 'Background'.

Step 2 - Create the Text and Object Combination

Part One:



1. Create an object using a Custom Region and a Custom Tool fill. Make this object cover about the top fl of the background object.

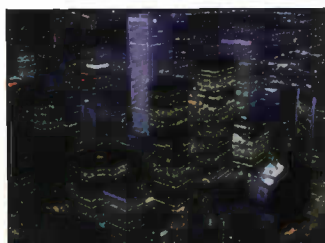
2. Select and name this object 'Golf'.

3. Edit the Custom Region work area to create a text object.

- Press the Edit Custom Region button in the Region area on the Access Bar to display the Custom Region work area.
- Create an object that fills the top half of the Custom Region work area. Make this object a Headline Text Region with a Solid Color fill.
- Replace the caption 'Headline' with the word 'GOLF' and select Times New Roman Bold as the font.
- Make the color of the text in the Custom Region. — black

4. Edit the Custom Region work area and create a golf ball and tee.

- Create the golf ball by covering the hollow part of the 'O' in 'GOLF' with a black ellipse object.



1



2



2



- Create the tee by using a black triangle rotated to 180 degrees; a black ellipse; and a white ellipse to make the top of the tee look rounded to fit the ball.
- Once you have the tee looking right, group the three objects together, and move it into position under the 'O' in the word 'GOLF'. You may need to play with the sizing to get it to look like the sample.
- Change the object order by moving the grouped object to the back.

Part Two:

1. Select the 'GOLF' object on the workspace and edit the 'GOLF' Custom Tool.

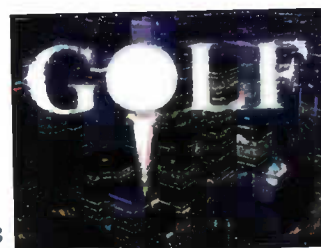
- Press the Edit Custom Tool button in the Tool area on the Access Bar.
- In the Custom Tool work area, create a rectangular bitmap. The sample shown uses 'GOLF.TGA' as the source bitmap, and can be found in the TSPECTRA\TUTORIAL directory.
- Duplicate this object twice (so that you have three of the bitmaps in the Custom Tool work area), and create a fourth object - a rectangle with a contrast and brightness fill.
- Adjust the contrast of this object by increasing it to its maximum level.
- Change the object order of the Contrast and Brightness object so that it is positioned behind one of the bitmaps, and covers the other two.
- Adjust the size and position of all of these objects to achieve the effect you desire. (Use the three bitmaps independently to fill the text and golf tee objects.)
- Close the Custom Tool work area.

Step 3: Create the Glowing Shadow

1. Duplicate the 'Golf' object on the main workspace and name it 'White Shadow'.
2. Change the Fill of 'White Shadow' from a Custom Tool to a Solid Color. Make the color of this object white.
3. Edit the Custom Region.
 - Create an object with a Rectangle Region and a Blur effect that covers the text and object combination.
4. Change the object order on the workspace so that the 'White Shadow' appears behind the 'Golf' object.
5. Duplicate the 'White Shadow'.



3



3



3

6. Change the color of the fill to a bright shade of green.

7. Name this object 'green shadow'.

8. Change the object order so that the 'green shadow' appears behind the 'white shadow'.



3



3

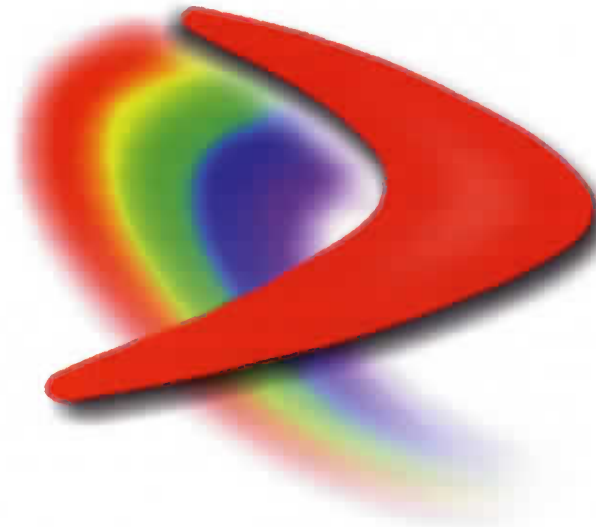


3

For the Adventurous

How did we do it?

We aren't giving you any hints on this one! (P.S. Read the Draw Section of the User's Guide.)



I had to keep messing with the order to get this to work.

*Top - Golf
- White shadow
- Green shadow
Bottom - Background
reference - Default Object*

Creating A Bitmap Cut-out With User Draw

Tutorial 16

In this Tutorial, you will:

- Use the Paint Roller to create a resolution independent mask
- Change the background of an Image
- Use Freehand draw



Step 1 - Setup



1. Load a bitmap (BOYBLUE2.JPG) into a rectangular region and name the resulting object 'Guide'.



2. Set the transparency of the 'Guide' object to 50%.

3. Duplicate 'Guide' and name the duplicate 'Masked Bitmap'. Do not move 'Masked Bitmap', leave both objects stacked on top of each other.

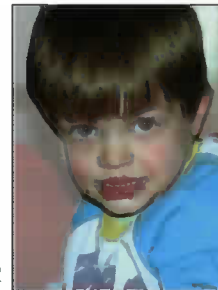
4. Set the transparency of 'Masked Bitmap' to 0%.



5. Change the region of 'Masked Bitmap' to User Draw.

- User Draw, when selected in this manner, will place points at the corners of the bitmap and fill the area between them (it is not in stroke mode).

I did this from the Areas box/Region
I do not see any filling of the area! ? fill in points around the perimeter?



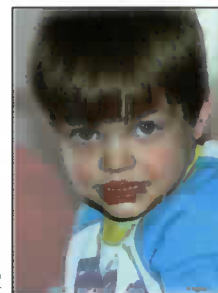
Step 2 - Drawing the Mask



1. With 'Masked Bitmap' highlighted, select the Paint Roller from the Power Panel.

2. Use the Roller to create a region.

- Move the Roller over a part of the area of the bitmap that you want to erase.
- Hold down the Control Key (Ctrl) on your keyboard and then press the Right Mouse button and drag the Roller to erase parts of the image. (Start with the area outside the boy's face.)
- As you move the Roller, the area it erases expands and the bitmap disappears to reveal the faint "Guide" object below. The "Guide" object is only used as a guide and can be deleted if you wish, but do not delete it for the purposes of this Tutorial as you need it for other effects.
- The Roller can also add to the mask — just press the Ctrl key and then press the Left Mouse button. The Roller will now replace parts of the image erased previously .



- Follow the outline of the boy carefully, otherwise your mask will have to be edited as explained later. Note that the ColorWave render engine may take time to catch up with you — there are thousands of vector calculations required of your system for each movement of your mouse!

3. When you have finished creating the mask, change the User Draw Softness property to soften the edges of your work. Experiment with values that leave a little blur around the edges.

- Note that if you do not have at least 65,000 colors displayable,, the edge blur will not be seen.

Step 3 - Changing The Background

Select the 'Guide' object and change the transparency to 0% then duplicate the object. Call the duplicate "Background Overlay".

Style One: (Blur)

1. Change the Tool (Fill) of 'Background Overlay' to Blur. Set the Blur radius property to 20.

2. Change the object order by moving 'Background Overlay' back one, behind "Masked Bitmap" and just in front of 'Template'.

Style Two: (Emboss)

1. Change the Tool of 'Background Overlay' to Emboss and experiment with different Emboss colors.

Style Three: (Freehand)

1. Change the region of 'Background Overlay' to User Draw. Turn on Stroke Mode. (You will see a frame around the boy.) *From the Region selection on the access panel, May have to zoom out.*
2. Select the Freehand brush and, while holding down Ctrl, press the left mouse button and begin drawing a wavy pattern back and forth across the object. *It keeps slipping after about 10x back and forth.*
3. Increase the softness and the line width until you get a thick, silky line. Then change the Tool to Solid Color (Fill) — choose a light blue color. *From the Region area on the access panel, set Line Width = 0.3, and Softness = 2*
4. Select 'Guide' and change the Tool to Solid Color and select a purple color.
5. Change the region of the 'Guide' object to User Draw, turn on Stroke Mode and select the Freehand brush. While holding down the Ctrl key, begin drawing a wavy pattern perpendicular to your previous pattern.



3
Style 1



3
Style 2



3
Style 3

Step 4 - Editing the Mask

There are times when a mask must be manually 'tweaked' after it has been created and, as described more fully in the Photo>Graphics User Guide, there are a number of draw features designed to help you to add, remove, and edit points on lines and curves. Here we will only deal with the basics.



1. **Zoom in on one side of "Masked Bitmap" and select the object.**
2. **Position the pointer over one of the highlighted points and select with the Left Mouse button.**
 - You will notice that the pointer changes to a claw, you may now move the point by dragging it with the Right or Left Mouse button held down.
 - You will also notice, when the selected point is on a curve, that curve's control points appear. Move these points to adjust the curve.
3. **After you are finished editing, add a Solid Color, yellow Rectangle behind your project, then add a Noise Fill immediately behind the cropped bitmap.**

4



For the Adventurous

Show Your Stuff!

If you have successfully come through these tutorials and think you can create eye popping (tasteful, or otherwise) graphics using ColorWave, we want to see what you can do. Both '.GDO' and '.ORC' files qualify. Here's the deal:

- For '.GDO' files: Use any draw features, any Regions or Tools as well as any bitmap on the Photo>Graphics disk and for text, use only Times Roman and/or Helvetica fonts to create your masterpiece(s). Do not use any other bitmaps.
- For sets of '.ORC' files: Use any draw features, any Regions or Tools but no bitmaps or fonts.
- E-mail your '.GDO' or '.ORC' files to 'gdofun@truespectra.com'.
- In the body of your e-mail you must include your name, address, Internet e-mail address, and telephone number.
- Once a month we will pick the best three GDOs and best three sets of ORCs. Authors of these will receive free upgrade for two years, will be announced on our Web site, and can have a link to their site set up if they wish. Many of the submissions will be posted on our Web site as well.

We will try to acknowledge all submissions. You must allow us to put your submission into the public domain and include it, in whole or in part, in future product releases. You do not need to buy anything from us, but must be using a legal copy of a ColorWave licensed product to create the graphics you submit.

Samples

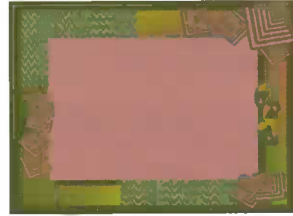
Here are some samples of TrueSpectra Photo>Graphics projects that you can find in the Samples Directory of Photo>Graphics. Some of these projects are rather complex, but still very easy to adapt or use as a starting point for other creations. Have fun!



f_abc.gdo



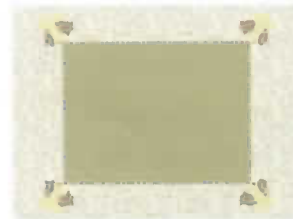
f_xmas.gdo



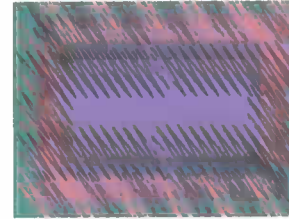
f_cube.gdo



f_lunar.gdo

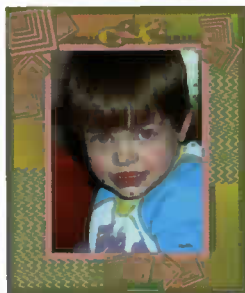


f_wed.gdo



f_wave.gdo

Tip: Frames can be used both in the Landscape orientation (right), and in the Portrait orientation (below) and can be stretched as required. The mood of a photograph can be changed instantly by inserting it into a new frame.



This selection of ColorWave Clipart (.ORC files) can all be used to create customized projects like the samples shown on these pages. These files can all be found in the 'Objects' directory of Photo>Graphics. Visit the TrueSpectra web site at www.truespectra.com for other ColorWave Clipart.



pencil.orc



eraser.orc



ornament.orc



candle.orc



bells.orc



lunarsun.orc



xmastree.orc



book.orc



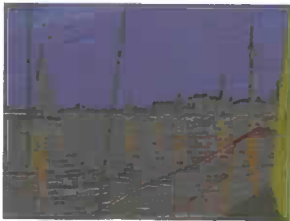
billiard.orc



romance.orc



spring.gdo



emboss.gdo



image.gdo



wedding.gdo



coffeead.gdo



sailing.gdo



tabby.gdo



fields.gdo



romance.gdo



flowers.gdo



wavy.gdo



billiard.gdo