

## I. Introduction

**ColorSure** is a method for reproducing exact spot colors. There are four main components of the **ColorSure System**:

- 1. ColorSure Palette:** This is the main color palette that includes commonly used colors.
- 2. Color Finder:** If a color needed is not on the **ColorSure Palette**, the **Color Finder** tool allows you to locate the exact custom color you are looking for.
- 3. Custom Palette:** With the **Custom Palette** feature, new custom colors can be added to the existing **ColorSure Palette**.
- 4. Application Palettes:** **Color Finder** colors can be added to existing software application palettes, or you can add multiple custom colors to new custom palette files (\*.cpl, \*.acl, etc.).

## II. Printing the ColorSure Palette

The first step to take is to print and transfer the **ColorSure Palette** to the various substrates that will be used. Most likely their will be customers who desire precise colors. Having a **ColorSure Palette** available allows the customer choose the color from the palette that is the closest match to what they want, and this gives a starting point for finding the exact custom color that will match a customer's needs.

**To print the ColorSure palette, follow the steps below:**

- Click '**Start**' and navigate to the '**Printers and Faxes**' folder. Right-click on the **PowerDriver** icon and select '**Printing Preferences**' from the menu.
- The **PowerDriver/ChromaBlast Driver** may also be opened from within an **Adobe** or **Corel** program by going to **File, Print**, and choosing the **PowerDriver/ChromaBlast Driver** for the Printer being used from the pull-down menu. Click **Properties** to open **PowerDriver. /ChromaBlast Driver**.
- Choose the paper size the palette will be printed to (**Letter, Legal, etc.**)
- Choose the substrate that the palette will be transferred to.
- Select the speed / resolution of the palette – **High Speed** or **High Quality**.
- Be sure to check the box to mirror the print, click '**Print Palette**,' and then transfer the palette to the previously selected substrate.
- Transfer the palette onto the substrate selected.
- You now have a visual representation of how the **ColorSure Palette** colors will appear on that particular substrate. Each time this color is selected from the palette it will print the same as long as **ColorSure is selected** under the **color options** section of the driver.

## III. Designing Your Artwork

By picking colors from the **ColorSure Palette**, you will be able to consistently reproduce colors in a reliable manner. To assist in designing any artwork, the **PowerDriver/ChromaBlast Driver** installs three palettes: two for **Adobe** products and one for **Corel** products. These colors match the palette that is printed from within **PowerDriver/ChromaBlast Driver**.

Sawgrass Technologies, Inc. is a leading developer of digital printing technology for mass customization of products on a wide variety of surfaces – including fabrics, plastics, metals, films and ceramics.

Sawgrass offers global markets state-of-the-art systems for creating highly customized, high-quality full color images. as a total solution provider, Sawgrass combines patented digital ink formulations with advanced color management software and a consultative technical support team to meet the needs of production customers looking for profitable production of mass customized products.

Sawgrass is committed to delivering quality products that customers can trust. Our patented ink technologies are accompanied by strong internal support systems. Sawgrass invests heavily in R&D to continue our tradition of bringing advanced color solutions to the international marketplace.

Sawgrass Technologies' US Headquarters is in Charleston, SC and our European Headquarters is in Basel, Switzerland, with additional offices in Sheffield, England.

**For Corel Draw:**

- To open the ColorSure Palette in Corel X3, 12, 11, 10 or 9 choose **Window** from the main menu > **Color Palette** > **Open Palette**. Browse to the **Program Files >Sawgrass** Folder and open the folder for the driver/printer used. Under that folder will be a **Corel** folder, open it and select the file **“ColorSure Palette Corel.”**

*(Please note: some file names maybe different due to the platform/driver used. If any questions on which file to use, please contact Sawgrass Technical Support at 888.253.1679.)*

**For Adobe Illustrator:**

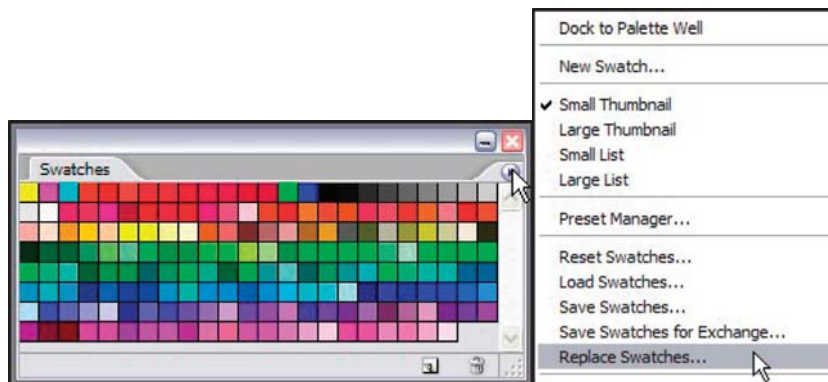
- To open the ColorSure Palette in Illustrator, choose **Window** from the main menu > **Swatch Libraries** > **Other Library**. Browse to the **Program Files >Sawgrass** Folder and open the folder for the driver/printer used. Under that folder will be a **Abohe** folder, open it and select the **ColorSure Palette** file.

*(Please note: some file names maybe different due to the platform/driver used. If any questions on which file to use, please contact Sawgrass Technical Support at 888.253.1679.)*

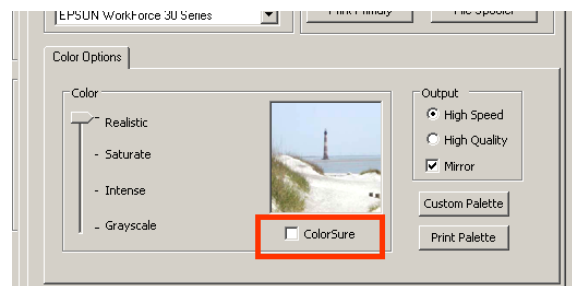
**For Adobe Photoshop:**

- To open the ColorSure Palette in Adobe PhotoShop, choose the **Swatches Palette**, click the option arrow on the palette, choose **Replace Swatches** and pick the **“ColorSure Palette”** file.

*(Please note: some file names maybe different due to the platform/driver used. If any questions on which file to use, please contact Sawgrass Technical Support at 888.253.1679.)*



You now have the ability to select the ColorSure color from the palette installed within your graphics program. Please note: You must select the ColorSure checkbox when printing so the color selected prints correctly.

**Example: ColorSure checkbox in a driver.**

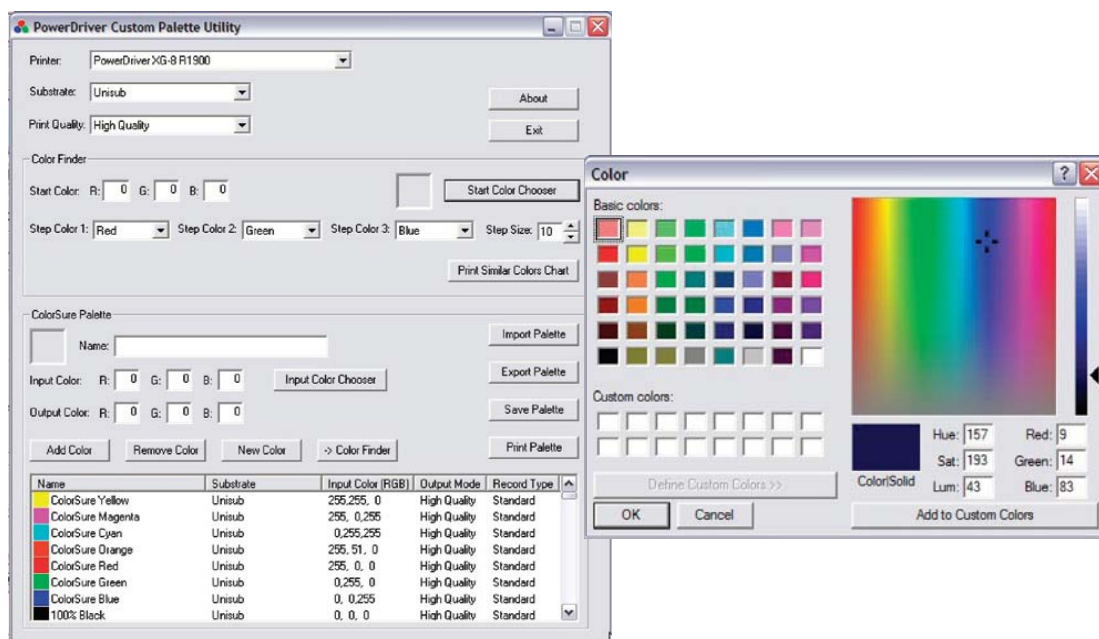
#### IV. Using Color Finder

After printing and transferring the **ColorSure Palette**, you see that you have an array of colors to work with. There will be times, however, when the color needed is not included in the **ColorSure Palette**. This is where the **Color Finder Tool** comes in handy.

The **Color Finder Tool** allows you to start with a specific color (e.g. navy blue) and find similar colors in the same family by adding and subtracting anywhere between three (RGB) to six (CMYKRB) colors called 'Step Colors.'

##### How to use Color Finder:

1. Open the **Driver** window as instructed in "Printing the ColorSure Palette" outlined in **Section II**.
2. At the bottom of the window, click the **Custom Palette Button**; this will open the **Custom Palette Utility** window.
3. First, select the driver for the printer you are currently using, then your desired **Substrate & Output (High Speed or High Quality)**. This activates the **Driver Custom Palette Utility** Screen.
4. To use **Color Chooser**, simply click on the 'Start Color Chooser' button in the "Color Finder" Section.
5. Next choose a color from the **basic colors** selection, or you can click on the **Define Custom Colors** button at the bottom of the window. This will display a color matrix click anywhere in the matrix to select the color needed. Use the slider at the right of the matrix to adjust luminosity. Clicking 'OK' will automatically fill the **RGB, CMYK, or CMYKRB** boxes, depending on which printer used, with the corresponding values and the color window will close.



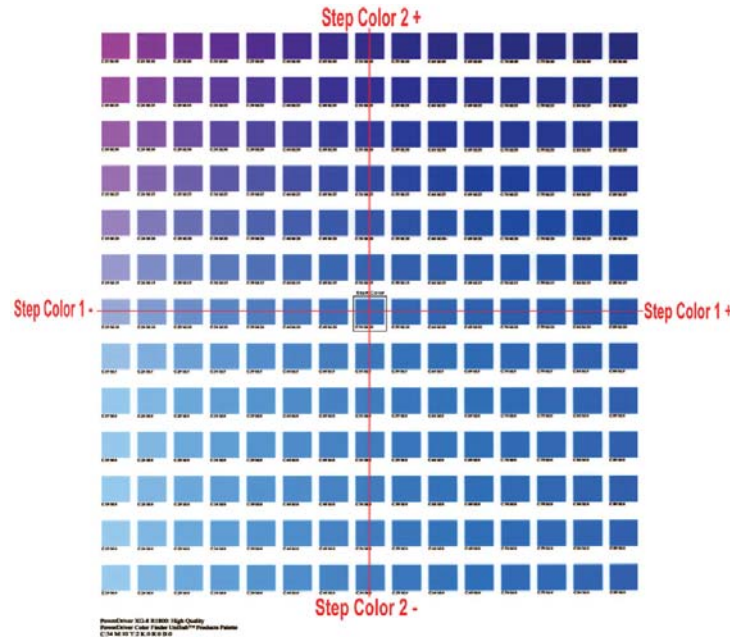
6. If the exact color needed cannot be found in the matrix or if **RGB, CMYK or CMYKRB** values are unknown, they can be determined by printing out a **Custom Palette**, which is outlined in the next section.
7. If the color needed has been found, skip to section **V. Custom Palette** for instructions on how to add this color to the color palette for later use.

**Printing a Custom Palette**

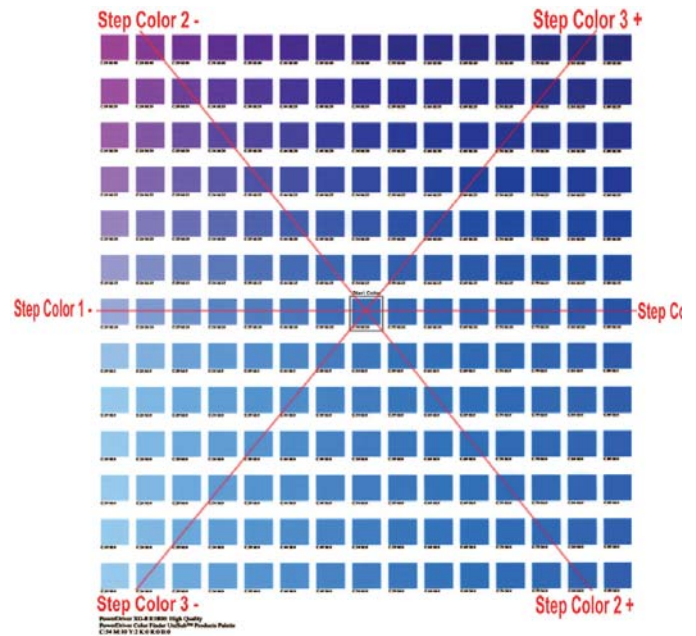
- 1. To find a color using the custom palette, use the Color Finder instructions in the previous section to get a basic color starting point. For example: if you are trying to match Michigan Blue, select a basic blue color as your starting point.

Once the starting color has been selected, the colors to vary that value must be selected by choosing the step colors. The chosen color's value maybe altered by selecting two or three Step Colors. Using multiple step colors will present you with a greater range and variety of colors to choose from.

- o For instance, if you choose to modify your Start Color with two steps, then Step Color 1 will change its values on the X (horizontal) axis and Step Color 2 will change its values on the Y (vertical) axis.



- o If you modify your Start Color with three steps, Step Color 1 will remain the same. However Step Color 2 and Step Color 3 will form an imaginary 'X' and their values will change on opposing diagonal Y axes.



2. Next, determine what Step Size you want to apply to the Color Finder palette. This is simply a question of how much you want your Start Color to fluctuate. If your Start Color is close to the color you are looking for, use a low **Step Size**. (i.e. 5-10) However, if your **Start Color** is not close to what you are looking for, use a higher Step Size. You can enter any Step Size value between 1 and 40.
3. When you are finished selecting the **Start Color**, **Step Colors**, and the **Step Size**, click on the **Print Colors** button. This will print your **Custom Color Finder** palette directly to your printer.
4. After printing the **Color Finder** palette, transfer it to your selected substrate and then try to match your desired color to one that is on the palette. If you find a suitable match, you are finished using the **Color Finder** tool. Move on to **Section V. Custom Palette**.

• If an accurate match couldn't be found on the first printed **Color Finder Palette**, follow the easy steps below to find a more suitable custom color:

1. First, try to locate a new **Start Color** that is closer to the needed from the palette just printed.
2. Next, after finding a more suitable **Start Color**, write down that color's **RGB or CMYK** value depending on the printer used. This value can be found listed underneath the printed color in the palette.
3. Lastly, plug the **RGB** values for the new **Start Color** into the boxes in **Color Finder**, choose your **Step Size**, and click on **Print Colors** once again. Continue with steps **1-3** until you find your desired color.

## V. Custom Palette

Once the color is found using the RGB values, CMYK values, or **Color Finder** tool it must be added to the existing or to a new palette to allow access to this color again should the same job arise. Please note: If you move from the current printer platform the color was mapped on to another printer platform you will need to remap the output value of the color because it will shift.

### To add a color to a palette:

1. Take the **RGB or CMYK value** of the matched color and put that number in the **Output Color** RGB or CMYK fields. This value is the color that will print.
2. Give the custom color a descriptive name in the name field.
3. Next, assign the **Input Color** Value. This value is what is seen on the screen and in the palette color selection window. This is just a visual representation for this color. This color should match as close as possible to the color to be printed. i.e. – don't use an input color value of purple for a color that is going to print orange on paper.

To assign this value there are two options:

- Use the same RGB value as the output value. This can easily be done with drivers/printers that have an RGB output color value.
  - Or simply click on the '**Input Color Chooser**' button, and then click on "**Define Custom Colors**". From the color matrix, find a color that closely resembles the color being adding to the custom palette. At the bottom-right of the color matrix window are the **RGB** values. Simply click 'OK' and the **RGB** Input Color values will be automatically entered.
4. Click the **Add Color** button. A window will pop up asking to add the color to the palette for all substrates or just the current substrate. Click '**YES**' here unless the same custom color is saved on palettes for other substrates. Another

window will then ask to save the custom color for all resolutions or just the current one. Click **'YES'** here unless the same custom color is saved on other palettes for other resolutions.

5. Lastly, click the **Save Palette** button. When finished, simply **Exit** out of the window.

The **'Import Palette'** and **'Export Palette'** buttons in the Custom Palette window are convenient to have in the event you need to transfer palettes to and from different computers. Again, please note: If you move from the current printer platform the color was mapped on to another printer platform you will need to remap the output value of the color because it will shift.

## VI. Adding Swatches to the Application Palette:

It is possible to add the custom color(s) swatch to an application palette as well. Make note of the **Input Color RGB** value that was assigned in the previous step in order to create the new swatch. Refer to the design application software's manual for instructions on this.