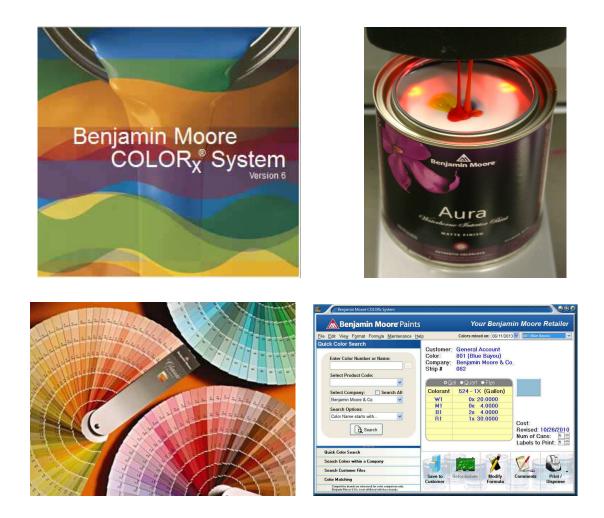
# **Benjamin Moore Paints**<sub>®</sub>

# Moore's COLOR<sub>x®</sub> Color Matching System & Prescription Book



# **COLOR<sub>x</sub> Software Operator's Manual**

Version 6

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# **Table of Contents**

<b>Introduction</b> System Requirements Service Assistance	4 4
Section 1 COLOR <sub>x</sub> Formula Book Accessing the Formula Book Printing the Sample Formula Dispensing the Formula to an Automatic Dispenser Ladder Series Vinyl Select Pallet Accessing Competitive Formulas Closest Benjamin Moore Color Reviewing Samples Pint Color Samples	5 6 9 12 14 16 18 19
Section 2 COLOR <sub>x</sub> Color Matching System Introduction Sample Preparation Software Operation Spectrophotometers System Startup Calibration Matching a Color Target Select Base and Colorants Correct Formula Automatic Correction Manual Correction Reformulate Creating a Formula Manually Dispensing a Formula Manually Using an Automatic Dispenser	20 21 22 23 24 25 27 30 34 34 34 36 37 39 41

# Section 3

Customer Transaction Database	
Saving a Color to a Customer	42
Adding a New Customer	43
Searching for a Customer and Colors	44
Grouping Colors by Job or Date	47

# Section 4

Maintenance	
Dropdown menus	48
Modify Store Information	48
Setting Colorant Costs	49
Specifying out of stock colorants	49
Label Options	50
Spectrophotometer set up	52
Automatic Dispenser set up	52
Configuring the Print and Dispense buttons	53
Accessing the Benjamin Moore web page through $\mathrm{COLOR}_{\mathrm{x}}$	54
Version number and system information	55
Changing the shot resolution	55
Manually Dispense Colorants	60
Installing COLOR <sub>x</sub> on a Network	61
List of Available Competitive Companies	62

# **INTRODUCTION**

# **GENERAL INFORMATION**

The Moore's  $COLOR_x$  ® Color Matching System and Prescription Book Manual is divided into four sections.

Section 1 describes the Benjamin Moore Prescription & Competitive Formula Book. Section 2 describes the COLOR<sub>x</sub> Color Matching Software. Section 3 describes the Customer Transaction Database. Section 4 describes the Maintenance functions of the software.

The Formula Book consists of all Benjamin Moore formulas along with calculated competitive prescriptions.

Both the formula book and the color matching software are easy to use. By utilizing easy to read screens, the program allows the operator to easily select the color and product that they desire.

#### Minimum System Requirements

To use the COLOR<sub>x</sub> Color Matching System and Electronic Prescription Book you need:

- Intel Pentium processor 500 MHz or higher.
- 1 GB of RAM
- 750 MB of free hard disk space.
- CD or DVD Drive
- Video card capable of supporting 16M colors
- Printer
- Serial or USB port for Spectrophotometer
- Windows® XP, Windows® Vista or Windows® 7

#### SERVICE ASSISTANCE

Call your regional Benjamin Moore Color Technology Representative for questions concerning software operation, software updates, and software problems at:

#### Benjamin Moore Color Matching Support Line (US & Canada): 1-800-809-9213

Call the following X-Rite numbers for hardware service, spare parts, or warranty questions about the Match-Rite and the COLOR<sub>x</sub> spectrophotometers:

In the continental United States and Canada: 1-877-974-8332

# Section 1 COLOR<sub>x</sub> Formula Book

## Accessing the Benjamin Moore Formula Book Program

To access the formula book program, double-click the Benjamin Moore  $COLOR_x$  icon from the Windows desktop screen. The formula book screen will appear as seen below in figure 1-1.

Benjamin Moore COLORx System				00
🛕 Benjamin Moore Paint	ts	Your E	lenjamin	Moore Retailer
ile <u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>M</u> aintenance <u>I</u>	<u>H</u> elp	Colors mixed on:	06/11/2013 💌	
Enter Color Search	Customer: Color: Company:			
Select Todact code.	• <u>G</u> a	al ● <u>Q</u> uart ● Fi <u>v</u>	<u>(</u> e	
Select Company: Search All Benjamin Moore & Co.	Colorant	(Gallon)	)	
Color Name starts with			R	ost: evised: um of Cans: 1÷ abels to Print: 1÷
Quick Color Search		5.12		
Search Colors within a Company		And A	1	
Search Customer Files				los V.
Color Matching	Save to F	Fo	lodify Co ormula	mments Print / Dispense
Competitive brands are referenced for color comparison only. Benjamin Moore & Co. is not affiliated with these brands.	Carry	Personal Start Pro-		

Figure 1-1

#### **Accessing Benjamin Moore Prescriptions**

To find a Benjamin Moore color, enter the desired color name or color number in the blank field labeled **Enter Color Number or Name**. Next, enter the desired product code in the field labeled **Select Product Code**.

If you don't know the three digit code for the desired product, click the down arrow at the right of the Select Product Code field and a list of products and codes will be displayed. If you are searching for a Benjamin Moore color, be sure Benjamin Moore is selected in the **Select Company** box. Now click on the **Search** button to display the formula.

When the color has been identified, the formula will be displayed as shown below in figure 1-2.

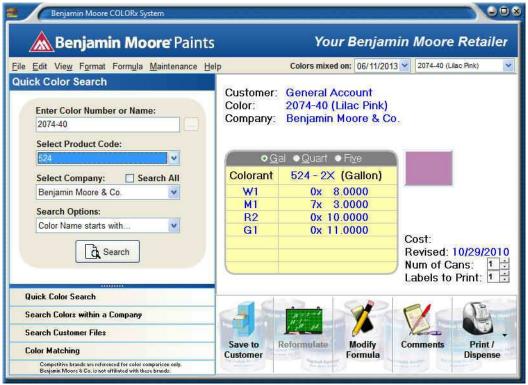


Figure 1-2

#### Printing the Sample Formula

Once a formula is displayed, the system is capable of displaying and printing the prescriptions for gallon, quart, or five-gallon sizes. You may view whichever size you desire by clicking the appropriate circle, **Gal**, **Quart**, or **Five** at the top of the formula grid.

To print the displayed prescription, click on the **Print** button. If you wish to print more than one label for the displayed prescription, click on the arrow on the **Labels to Print** window until the desired number of labels to print appears in the box. Then click the **Print** button.

#### Dispensing the Formula to an Automatic Dispenser

If you have an automatic dispenser connected to the  $COLOR_x$  software, you can dispense the displayed formula by setting up the **Print** button to **Print / Dispense**. The system will send the formula displayed on the screen to the automatic dispenser and your printer. To set this up, see **Configuring the Print / Dispense Button** on page 53 of this manual. If you wish to dispense more than one can for the displayed prescription, click on the arrow on the **Num of Cans** window until the desired number of cans appears in the box. Then click the **Print / Dispense** button.

#### Cost

This the cost of the colorants for the current prescription as defined in the colorant table in the Modify Store Information screen. This display could be turned off in Modify Store Information. See page 49 for details.

#### Revised

This is the date that the prescription was created or revised.

#### **Primer Required**

If a primer is required for the current prescription, a message box will be displayed as below.



Figure 1-3

By clicking on the **OK** button, the primer formula is displayed as in figure 1-4. From here you can print or dispense the primer formula,



Figure 1-4

If you choose a color that is unavailable in the product you selected, the system will display a list of Benjamin Moore products that have a prescription for the selected color as shown in figure 1-5. You can click on one of the products, then click on the **Select** button for a prescription for that product.



Figure 1-5

If you wish to look up a miscellaneous color name, but you don't know the spelling or the full name for the color, you can enter the beginning of the name or part of the name. Choose the **Search Options** box for either the "Color Name starts with..." choice or the "Color Name contains..." choice. The system will look up and display a list of color names beginning with the letters you entered or containing the text you entered depending on the option you chose.

Click on the color you desire from the list, and then click on the Select button, (figure 1-6.)

Benjamin	Moore COLOR: Sys	tem			008
<b>A</b> Benj	amin Mo	ore Paints	; Yo	our Benjamin Mo	oore Retailer
ile <u>E</u> dit Vie <u>w</u> F <u>r</u>	ormat Formula	<u>Maintenance</u>	lp Colors mix	ed on: 06/11/2013 ⊻	~
uick Color Se	arch				
	Select Col	or			8
Enter Colo					
White	Selection Criteria				
Select Pro	Color Name				
524	ColorNumber	Color Name	Company	Comments	
Select Cor	GN-4 C0-76	white pebble white pepper	Benjamin Moore & Co. Benjamin Moore & Co.	Imagine	
Benjamin I	GN-77 708	white pepper White Bain	Benjamin Moore & Co.	Imagine	
Search Op	1499	White River	Benjamin Moore & Co. Benjamin Moore & Co.		
Color Nam	918 CC-160 0R-4	White Rock White Rock white rose	Benjamin Moore & Co. Benjamin Moore & Co. Benjamin Moore & Co.		
	964 0C-10	White Sand White Sand	Benjamin Moore & Co. Benjamin Moore & Co.		- uns: 1÷ Print: 1÷
Quick Color Se					
Search Colors wi	thin a Company			V 71	
Search Customer	Files			P Xe	-
Color Matching			Save to Reformulate	Modify Comme Formula	ents Print / Dispense
	are referenced for color con o. is not affiliated with these		The first of the f		

Figure 1-6

Benjamin Moore Paints		Your Ben			a statem
Edit View Format Formula Maintenance H	elp	Colors mixed on: 06/	1/2013 💌	1499 (White F	River)
Enter Color Number or Name:	Customer: Color: Company: Strip #	General Account White River (149 Benjamin Moore 139	9)		
	• <u>G</u>	al ● <u>Q</u> uart ● Fi <u>v</u> e			Also
Select Company: 🔲 Search All	Colorant	524 - 1X (Gallo	n)		Known A
Benjamin Moore & Co.	¥3	0x 10.5000			
Search Options:	S1	0x 5.0000			
Color Name starts with	W1 Y2	3x 15.0000 0x 1.0000			
Search			R	ost: evised: 1 um of Ca abels to F	ns: 1
Quick Color Search					-
Search Colors within a Company			F	10	A
Search Customer Files	THE PARTY	Le de V	· >	Para I	
Color Matching	Save to	Reformulate Modif	v Cor	mments	Print /

Figure 1-7

#### Strip Number

On certain Classic Colors, a **Strip** # will appear below the **Company**. This indicates which color strip the color is located on in the Benjamin Moore display.

#### Also Known As

Some Benjamin Moore Colors have different names associated with one color. When these colors are accessed, an **Also Known As** button appears below the color swatch. By clicking on this button, a list of color aliases for that color appears as shown below in figure 1-8.

ABenjami	<b>in Moore</b> Paints		Your Benjamiı	n Moore Retaile
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat	Formula Maintenance Hel	lp	Colors mixed on: 06/11/2013	1499 (White River)
ick Color Search Enter Color Num	1499 (White River) is a		General Account	8
Select Product C Select Company Benjamin Moore - Search Options: Color Name start:	Number Name OC-138 White Drifts		The color "1499 (White River)" appears on multiple color cards. On each card the color could be identified with a different name or number. The list to the left displays these additional aliases.	ed: 10/27/201 of Cans: 1 s to Print: 1
Quick Color Search Search Colors within a Search Customer Files Color Matching Competitive brands are referent Beakalin March Sch Jeros	nced for color comparison only.	Save to Customer	Reformulate	Comments Print / Dispense

Figure 1-8

#### Ladder Series

The Ladder Series feature makes it possible to adjust a displayed prescription, either lighter or darker.

By choosing the Modify Formula button when the desired formula is displayed, you can make the color lighter or darker by 5%, 10%, 25%, 50%, or 75%.

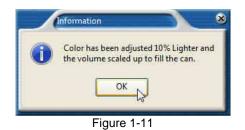
Benjamin Moore Pain	ts	Your E	Benjamin	Moore Ret	taili
Edit View Format Formula Maintenance	Help	Colors mixed on:	06/11/2013 💙	2126-50 (Gray Timb	ber Wo
Enter Color Number or Name:	Customer: Color: Company:	General Acco 2126-50 (Gra Benjamin Mo	y Timber W	/olf)	
Select Product Code:	• G	al ●Quart ●Fi	ve		
Select Company: Search All Benjamin Moore & Co.	Colorant Y3 S1 W1 S2	632 - 1× (G 0x 1.00 1x 10.00 2x 20.00 0x 12.00	000 000 000 000 000	Cost: Revised: 6/18/; Num of Cans: Labels to Print	1
Luick Color Search Search Colors within a Company Search Customer Files Color Matching Compatible bands un referenced for color comparison only.	Save to Customer		Modify C		rint /

Figure 1-9

When you click on the Modify Formula button, the Modify Color Formula screen is displayed, as shown in figure 1-10. Move the pointer to the Adjust Original Formula box and click on the down arrow. Now you can adjust the displayed formula to lighten or darken the color by the desired percentage.

Color Number:*	2126-50					Color: 21	26-50 (Gray Timber	Wolf)
Color Name:*	Gray Timber Wolf			• <u>G</u> a	al ● <u>Q</u> uart ● Fi <u>v</u> e			
Product / Base:	632		V / 1X V			Colorant	632 - 1X (Gallon)	
* A color	number or	color	name i:	s required.		Y3	0x 1.0000	
						S1	1x 10.0000	Origina Target
Enter Formula Correction				100	W1	2x 20.0000	larger	
Adjust Origin	al Formu	and the second			~	S2	0x 12.0000	
Colorant	S	ub 5	75% Darker 50% Darker 25% Darker		<u> </u>			
Y3 - Oxide Ye	llow [	2			-			
S1 - Black				10% Darker 5% Darker				-
W1 - White	Ø		0% Original Formula					-)
S2 - Gray	, I	1	5% Lig	hter hter	-	Show Original Formula		
	1	1		5		Beco	nmendations:	
	ſ	1				10000	interreducióne.	
	1	1	-					
		3			~			
		77. ( )						

Figure 1-10



The adjusted prescription (in this example, 10% lighter) is displayed as shown in figure 1-12. If you wish to try a different percentage, click on the down arrow again and choose a different percentage.

If you wish to view the original formula again, move the pointer to the Show Original Formula box and click on it as shown below. **To display the adjusted formula again, you must uncheck this box**. When you are satisfied with an adjusted formula, click on the Save button and the current adjusted formula will be saved. You can print or dispense that formula by clicking on the desired button.

Color Number:*	2126-50					Color: 21	26-50 (Gray Timber W	olf)
Color Name:*	Gray Timber	Wolf	_			• <u>G</u> a	I ● <u>Q</u> uart ● Fi <u>v</u> e	
Product / Base:	632	×	1	1X	~	Colorant	632 - 1× (Gallon)	
* A color	number or co	lor nam	ne is	s required.		Y3	0x 0.7500	-
nter Formula C	arrantian					S1	1x 5.7500	Origina Target
		109	1000		~	W1	2x 14.5000	langer
Adjust Origin	iai Formula:	10%	Lig	nter		S2	0x 10.7500	
Colorant	Sub (Gallon)		Gallon)	^				
Y3 - Oxide Ye	llow 🔽	0	x	0.2500				
S1 - Black	ম	0	x	4.2500				
W1 - White	V	0	x	5.5000				)
S2 - Gray	J	0	x	1.2500		□ She	w Original Formula	
						Becor	nmendations:	
						1.0001		
			1		~			
	, bone		-					

Figure 1-12

Certain formulas may not be scalable because adding more colorant may overfill the can. An example is shown in figure 1-13 when attempting to darken the formula by 10%. In this case a message will appear informing you that the system is unable to adjust the formula, because the new formula will exceed the volume of the can.

Modify Color Formula						x
Color Number:* 2055-20	)			Color: 20	55-20 (Pacific Oc	ean Blue)
Color Name: * Pacific	Ocean Blue			• <u>G</u> al	● <u>Q</u> uart ●Fi <u>v</u> e	
Product / Base: 524	▼ / 4	X 💽		Colorant	524 - 4X Gallor	۱
* A color number	or color name is re	equired.		W1	2x 2.0000	
⊢Enter Formula Correctio				M1	0x 22.0000	Original Target
				B1	4x 13.0000	Talget
Adjust Original Form	nula:  10% Darker	r 💌		G1	7x 19.0000	
Colorant	Sub Gal	lon 🔺				
W1 - White	□ <u>×</u>					
M1 - Magenta	Informatio	n			×	
B1 - Thalo Blue		nable to adjust the col				-
G1 - Thalo Green		he required formula will	l exceed l	the volume of the	<sup>can.</sup> nal Formula	
		[	K		ins:	
		<u></u>				
		<b>•</b>				
Formulate Correction	Dispense	Print			📙 Save	🗶 Cancel
		Figure	1-13			

When using the Ladder Series to lighten a color, it may reduce the hiding capabilities of the color.

#### Vinyl Select Palette

The Vinyl Select palette will offer an alternative prescription for some of the deep colors that can safely be used on vinyl siding/trim.

When entering a color number, if the color is one from the Vinyl Select palette, two different prescriptions may be available, one that is the standard prescription (labeled General) for most substrates, and the other that is approved for use on vinyl siding. Please note that not all colors will be included in the Vinyl Select palette.

In the example below shown in figure 1-14, we entered color HC-134 in product 629. The Multiple Formulas Available screen opens up and prompts us to choose one of the two options.

🐮 🖉 Benjamin I	Moore COLORx System			
🛦 Benj	<b>amin Moore</b> Paint	ts	Your Benjamin Moore	e Retailer
<u>Eile E</u> dit Vie <u>w</u> Fo	ormat Form <u>u</u> la <u>M</u> aintenance	Help Co	lors mixed on: 06/11/2013 ⊻	×
Quick Color Sea	arch	Customer:		
Enter Color HC-134	Multiple Formulas Availa	ble		8
Select Prot 629 Select Con Benjamin M Search Opt Color Name	General General For Vinyl Select Best Perform	mula mance for Vinyl Siding	Multiple formulas are available for this color in 629. Choose a color formula from the list on the left appropriate for your paint application. Next Press or Click <select> to retrieve the color formula.</select>	
			Select Select	1. 1:1:
Quick Color Sear	ch			(5)
Search Colors wil				
Search Customer	Files		mulate Modify Comments	Print /
Competitive brands	are referenced for color comparison only. o. is not affiliated with these brands.	Customer	Formula	Dispense

Figure 1-14

By choosing General and clicking on the Select button, the General formula is displayed as shown below in figure 1-15.

Benjamin Moore Paints	S	Your Store Name Goes					
Edit View Format Formula Maintenance H	elp	Colors mixed on:	06/11/2013 👻	HC-134 (Tarrytown Gree			
Enter Color Number or Name:	Customer: Color: Company:	General Acco HC-134 (Tarr Benjamin Mo	ytown Gree	n)			
Select Product Code:	• <u>G</u>	al ● <u>Q</u> uart ●Fi	<u>v</u> e	Also			
Select Company: Search All	Colorant	629 - 4× (G	allon)	Known A			
Benjamin Moore & Co.	¥3	5x 6.00		inimum 6 minute shake quired.			
Search Options:	S1	3x 1.00	000	quireu.			
Color Name starts with	W1 B1	1x 21.00 4x 13.00	Conception of the second se				
	DI	44 10.00	C	ost:			
G Search				evised: 6/20/200			
				um of Cans: 1 abels to Print: 1			
Quick Color Search							
Search Colors within a Company	4	Page 1	1 5				
Search Customer Files		1 21		lan Si			
Color Matching	Save to	Reformulate	Modify Co	mments Print /			

Figure 1-15

By choosing Vinyl Select and clicking on the Select button as shown in figure 1-16, the formula for the best performance on vinyl siding is displayed as shown in figure 1-17.

General	General Formula	Multiple formulas are available
/inyl Select	Best Performance for Vinyl Siding	for this color in 629.
		Choose a color formula from the list on the left appropriate for your paint application.
		Next Press or Click <select> to retrieve the color formula.</select>

#### Figure 1-16

Benjamin Moore Paints		Υοι	ır Benjan	nin Moore	Retaile
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>M</u> aintenance <u>H</u> e	lp	Colors mixed	d on: 06/11/20	13 👻 HC-134 (Ta	rrytown Greer
ick Color Search Enter Color Number or Name:	Customer: Color: Company:		Account Farrytown G Moore & C		
Select Product Code:	oG	al •Quart ·	- Evo		
Select Company: Search All	Colorant		(Gallon)		Also Known A:
Benjamin Moore & Co.	Y3	2x 1	8.0000	Minimum 6 mi	nute shake t
Search Options:	W1		0.0000	required.	
Color Name starts with	M1 G1		4.0000 8.0000	_	
C Search		TX -	5.0000	Cost: Revised: Num of C Labels to	ans: 1
Quick Color Search			- P		-
Search Colors within a Company	3 X	Case of	1	P/C	
Search Customer Files		1 11		Years	
Color Matching	Save to Customer	Reformulate	Modify Formula	Comments	Print / Dispense

Figure 1-17

As in all prescription inquires, the prescriptions that are looked up are saved in the General Account. However to save a Vinyl Select prescription, you must save it to the Customer Transaction Database.

(For more information on creating and saving to the Customer Transaction Database, refer to Section 3 of this manual.)

# **Accessing Competitive Formulas**

The COLOR<sub>x</sub> Formula Book can look up prescriptions for competitive companies. The list of available competitive companies and fandecks available are listed at the end of this manual.

#### The competitive colors in the COLOR<sub>x</sub> Formula Book are calculated matches.

#### **Competitive Color Prescriptions from COLOR**<sub>x</sub>

We have amassed an extensive collection of colors from our competitor's color merchandise over the years. This information is available in our Color Search option in  $COLOR_x$ . To see if a color exists, simply follow the same procedure you would for a Benjamin Moore color. Enter a color number or name, along with a product, and either select an individual company or check the "Search All" box above the Select Company drop down list.

Unlike a Benjamin Moore color which displays a prescription created and tested by our Color Prescriptioning Lab, we store just the measurement of the competitive color. That measurement is run in our color matching application to generate a color prescription the same as if you measured a custom color with a spectrophotometer and calculated a match.

Therefore, when a customer requests a match to a competitive color, a retailer should follow this procedure.

First, look up the color in  $COLOR_x$  and determine if we have it in our system. If it is, a prescription will be calculated and displayed. Click on the button "Closest BM Color", this will list the five closest Benjamin Moore colors. Suggest to the customer that they look at our closest colors and see if that meets their color requirements. This has two benefits, if the color is acceptable, then you have a tested Benjamin Moore prescription to make the color and you have changed a competitive color specification to a Benjamin Moore color specification.

Second, if you or the customer has a sample of the competitive color merchandise then match the color merchandise just as you would match a custom color. Since the customer will be judging the color to the merchandise sample that should be your target. Depending on the age and condition of the merchandise, it may not represent what we have stored in  $COLOR_x$ 

Finally, if the customer does not like our closest color and no sample of the color is available then use the calculated match in  $COLOR_x$ .

If you have any questions please contact your Color Technology Rep or call 800-809-9213.

To look up a competitive color, enter the desired color name or color number in the blank field labeled **Enter Color Number or Name**. Next, enter the desired product code in the field labeled **Select Product Code**.

If you don't know the three digit code for the desired product, click the down arrow at the right of the **Select Product Code** field and a list of products and codes will be displayed. Now click on the arrow in the **Select Company** box. Then choose the competitive company you wish to search by clicking on the desired company with the mouse as shown in the example in Figure 1-18. Now click on the **Search** button.

Benjamin Moore Pain	ts	Your	Benjamin	Moore Retai
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>M</u> aintenance	Help	Colors mixed on:	06/11/2013 💌	
Enter Color Number or Name: Mesa Tan Select Product Code:	Customer: Color: Company:			
524	o <u>G</u> a Colorant			
Select Company: Search All Benjamin Moore & Co.		(Gallon	,	
Royal Crest Samson Scheuder-Holland Sears				ost:
Sherwin Williams Sico Sikkens Solver Taubmans UTikkunia			R	evised: um of Cans: 1 abels to Print: 1
Search Colors within a Company	Talk	Provent S	1 5	1 DE
Search Customer Files		1 2 21		
Color Matching	Save to R	eformulate	lodify Co	mments Print

Figure 1-18

The system will search for the color you entered then calculate the color formula.

When the system locates the color, it will calculated the formula and display it as in the sample shown in figure 1-19.

🖀 🥂 Benjamin Moore COLORx System					008
Benjamin Moore Paints	i	Υοι	ır Benjan	nin Moor	e Retailer
Eile Edit View Format Formula Maintenance He	əlp	Colors mixe	d on: 06/11/201	13 👻 SW7695	(Mesa Tan) 🛛 💉
Quick Color Search Enter Color Number or Name: Select Product Code:	Customer: Color: Company: Fandeck:	Mesa Tan Sherwin V	(SW7695)	n) 2007	
	• <u>G</u>	al • <u>Q</u> uart	● Fi <u>v</u> e		Closest
Select Company: 📃 Search All	Colorant	524 - 2X	(Gallon)		BM Color
Benjamin Moore & Co. 🗸	Y3		5.0000		
Search Options:	S1 B3		0.2500 6.7500	-	
Color Name starts with				Cost: Revised Num of Labels t	conto.
Quick Color Search	- 0	1			(5)
Search Colors within a Company		11-1-1	No.	TV S	- Aleren
Search Customer Files		Jacob Contraction	<b>P</b>	X	
Color Matching	Save to I Customer	Reformulate	Modify Formula	Comments	Print / Dispense
Competitive brands are referenced for color comparison only, Benjamin Moore & Co. is not affiliated with these brands.	Ferdis werdt	*Zitting			

Figure 1-19

The fandeck or color card where the competitive color is displayed will also be listed. A button will appear under the color swatch **Closest BM Color**. By clicking on this button, the system will display the five closest Benjamin Moore colors, the closest match being at the top of the list as shown in figure 1-20.

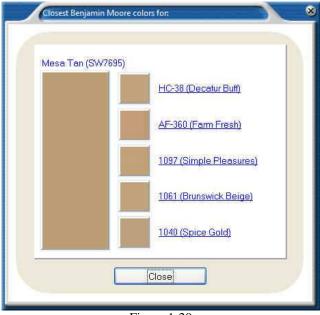


Figure 1-20

If your customer prefers one of the displayed Benjamin Moore colors, you can access the prescription by clicking on the color name.

If you wish to search for a color in all competitive fandecks, enter the color name and product code. Then click on the **Search All** box located above the **Select Company** box. Now click on **Search**. Select the sample you wish to display by clicking on the desired item with the mouse, highlighting it, and then click on the <u>Select</u> button, (figure 1-21.)

Benjamin Moore Pa			19 14 15 14 19 19 19 19 19 19 19 19 19 19 19 19 19		
<u>Edit View Fo</u> rmat Form <u>u</u> la <u>M</u> aintenanc k Color Search	custo	mer:	Colors mixed on: 06/	11/2013	
Enter Color Number or Name: Pearl White	Select Col	of			
Select Product Code: W625	Selection Criteria Color Name				
Select Company: Search All Search Options: Color Name starts with	ColorNumber \$P.70 5940W 5940W C-113 W\$5 5666 P F1161-4 17163-1 2244 666	Color Name Pearl White Pearl White Pearl White Pearl White Pearl White Pearl White Pearl White Pearl White Pearl White Pearl White	Company: Dunn Edwards Duron Frazee Fuller D'Brien Kelly Moore M.A.B. Para Paints Porter Paints Pratt & Lambert Rodda Paint	Comments	
aick Color Search earch Colors within a Company earch Customer Files	Save t		Modify Formula	v Select	

Figure 1-21

The color and company you selected will then be displayed along with the calculated formula as shown in figure 1-22.

Benjamin Moore Paint	S	You	ır Benjan	nin Moore	e Retaile
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>M</u> aintenance <u>H</u>	telp	Colors mixed	d on: 06/11/201	3 💙 SP 70 (Pea	arl White)
Enter Color Number or Name:	Color: Company:		te (SP 70) /ards	2000	
×	• <u>G</u>	al o <u>Q</u> uart (	● Fi <u>v</u> e		Closest
Select Company: Search All	Colorant	W625 - 1>	(Gallon)		BM Color
Benjamin Moore & Co.	Y3	0x 13	3.0000		
Search Options:	S1		3.0000		
Color Name starts with	W1	1000	5.5000	_	
Search	R3	0x (	0.5000	Cost: Revised: Num of C Labels to	the second se
Quick Color Search					1
Search Colors within a Company		1 to and	1	The second	A
earch Customer Files		1201		Years	G
Color Matching	Save to	Reformulate	Modify	Comments	Print /

Figure 1-22

A feature that allows another search method that can be done by clicking on the **Search Colors** within a Company button at the bottom left of the screen (figure 1-23.)

100	Name:
Select Product Code:	
	v
Select Company:	Search All
Benjamin Moore & Co.	v
Search Options:	
Color Name starts with	~
<u> </u>	_
Quick Color Search	
Quick Color Search Search Colors within a Comp	any
Quick Color Search	any

Figure 1-23

Choose the company you wish to search and the colors we have in our database for the selected company will appear. You can sort by color name or number, or do a search on a particular name or number. Then choose a product you wish to make the selected color in and press **Enter**. The color and calculated formula will then be displayed as shown below.

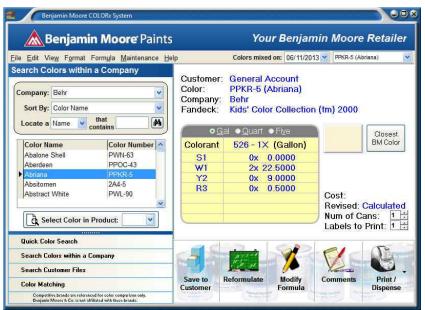


Figure 1-24

## **Reviewing Samples**

When prescriptions are looked up or color matches are measured, the samples can be recalled on the screen by clicking on the dropdown arrow located near the top right side of the screen under the store name as shown below in figure 1-25. When the dropdown box appears, simply highlight the sample you wish to recall and it will be displayed. This dropdown displays all the samples that were measured or looked up on the date chosen in the **Colors mixed on** dropdown box.

Edit View Format Formula Maintenance	Help	Colors mixed o	n: 06/11/201	3 👻 SW1149 (A	lways Almond
ick Color Search	06/11/2013 Genera	al Account al Account		Masterpiece Tan)	W625 512
Enter Color Number or Name:	06/11/2013 Genera 06/11/2013 Genera	al Account al Account al Account al Account al Account	SW1201 ( SW1680 ( SW1757 (	Always Almond) Magic Night) Luscious Lemon) Aegean Sky) Alaskan Sea)	512 512 512 512 512 N221
Select Product Code:	●Ga	I ● <u>Q</u> uart ●	Fi⊻e		Closest
Select Company: 🔲 Search All	Colorant	512 - 1X (	Gallon)		BM Color
Benjamin Moore & Co.	Y3	1x 16.	and the second	_	vo
Search Options:	S1 B3	0x 10. 0x 0	7500 7500	-	
Color Name starts with				Cost: Revised: Num of C Labels to	ans: 1
Quick Color Search	e =			-	1
Search Colors within a Company		pare-l	1	C/C	LA BA

Figure 1-25

By using the **Colors mixed on** dropdown box, you can display the colors that were measured or looked up on a particular day. The default date is the current date. To change the date, click on the dropdown arrow and choose the date you wish to view as shown below in figure 1-26.

Benjamin Moore COLORx System								-	N	
Benjamin Moore Paint	s	Your B	enj	ian	in	Mo	ore	R	etai	iler
Eile Edit View Format Formula Maintenance H	lelp	Colors mixed on:	06/1	1/201	3 -					~
Quick Color Search			4						•	
	Customer: Color:		Sun	Mon	Tue	Wed	The	Ēri	Sat	
Enter Color Number or Name:	Company:		26	27	28	29	30	31	1	
	company.		2	3	4	5	6	7	8	
Select Product Code:			9 16	10 17	18	12 19	13 20	14 21	15	
v	●Ga	l • Quart • Fiv	23	24	25		27	28	29	
	Colorant	(Gallon)	30	1	2	3	4	5	6	
Select Company: Search All	Colorant	(Gallon)	2	Tod	ay: 6	11/20	)13			
Benjamin Moore & Co.					-					
Search Options:					-					
Color Name starts with					R	ost: evise um c abel:	of C	1000	10 JH	1 4
Quick Color Search		5 12	D				-		-	
Search Colors within a Company			1	2	F	1	1		12	-
Search Customer Files					X	2	Þ		1.3	
Color Matching	Save to R Customer		odify		Co	nmer	nts	n	Print	
Competitive brands are referenced for color comparison only. Benjamin Moore & Co. is not affiliated with these brands.	Customer	The second		-		1	1		sher	130

Figure 1-26

# **Pint Samples**

 $COLOR_x$  has the ability to dispense Pint Sample Colors using automatic dispensers. Enter the desired Benjamin Moore color. Enter product code 127 and click on the Search button as shown below. Then click on the Print/Dispense button.

Benjamin Moore COLORx System			008
Benjamin Moore Paints	5	Your Benjan	nin Moore Retailer
<u>File Edit View</u> Format Formula <u>Maintenance</u> He	elp	Colors mixed on: 06/11/201	3 🗙 AF-20 (Mascarpone)
Quick Color Search Enter Color Number or Name: Select Product Code:	Customer: Color: Company:	General Account AF-20 (Mascarpone) Benjamin Moore & Co	
		• <u>P</u> int Sample	
Select Company: 🔲 Search All	Colorant	127 - 1X (Pint)	
Benjamin Moore & Co.	Y3	0x 0.1875	
Search Options:	Y2	0x 0.2500	-
Color Name starts with	S2 R1	0x 1.0000 0x 0.1250	Cost:
<u>ā</u> Search			Revised: 5/9/2012 Num of Cans: 1÷ Labels to Print: 1÷
Quick Color Search			
Search Colors within a Company			No am
Search Customer Files			Ver Co.
Color Matching	Save to F Customer	Reformulate Modify Formula	Comments Print / Dispense
Competitive brands are referenced for color comparison only. Benjamin Moore & Co. is not affiliated with these brands:	Service service	Product for the second se	

Figure 1-27

# Section 2 COLOR<sub>x</sub> Color Matching Program





Dell® Computer with a MatchRite® Spectrophotometer and a Dymo LabelWriter® Printer

# Introduction

The  $COLOR_x$  Color Matching System software is state-of-the-art in color technology. It is designed specifically for quick and accurate color matching and ease of use. The hardware, which the software runs on is composed of three main components:

- Spectrophotometer
- Computer
- Printer

Once the spectrophotometer and the computer are turned on, the software will control and coordinate all user interaction with the system. The program interacts with the operator by means of windows and dialog boxes on the screen, and guides the operator through the color formulation process. The user is free to give maximum attention to the preparation of the color samples.

This section describes the software operation of the system, and how to prepare, measure, and evaluate color samples using the color matching system.

# Operation

## Sample Preparation

Proper sample preparation is the key to a quick, accurate color match. The surface of the target sample must be large enough to completely cover the instrument aperture. The sample must be opaque to obtain a good reading. If your sample is translucent, layer the sample color to increase opacity.

# Target Sample

The target sample is the color sample that you wish to match. It may be any solid opaque substance: wallpaper, plaster, or dried paint on a drawdown card.

Place your target sample on the backing tile, carefully lining up the color with the aperture. You should take two measurements of the target sample, using the Average Sample button. Move the sample slightly between each measurement. This averaging technique can help you reject a bad measurement that could cause a poor color match. If there is a significant change in data, the screen will display a warning. If this happens, you should reject the data and repeat the measurement from the beginning. Note that you can expect this warning message for non-uniform target colors. You should not reject data for these types of samples.

## **Batch Sample**

The majority of colors made in 1 base, 2 base, and 3 base should be good commercial matches from the initial formulation. Certain colors made in 4 base will sometimes require at least one adjustment before being acceptable. You can expect to make adds to a number of 4 base colors.

Color matches should be evaluated by eye to see if additional adjustment is required. Do not use draw downs for this evaluation. Putting a small amount of the last batch you mixed on the same surface as the target color is best for visual evaluation. If this is not possible, then a piece of the drawdown containing only the color should be cut out. The area surrounding a color affects the eye's ability to evaluate color matches. It is very important to make sure that the bright white background surrounding the color on a drawdown card is not affecting your color perception.

The **batch sample** is the Benjamin Moore paint you have tinted with the formula generated by the  $COLOR_x$  software. A sample of this tinted paint must be prepared for evaluation. First, be sure that the colorants you have added to the base paint have been completely dispersed. This requires at least five minutes on a conventional paint shaker. Be aware that if you do not fully develop the color by shaking, the program cannot predict an accurate match.

After the initial formula has been prepared, you must obtain a dry sample ("drawdown") to determine if further correction is necessary. To accomplish this, make a drawdown of the wet paint using a wet film applicator (drawdown bar.) Use the .008 side for most of your color work. Use the .012 side for colors with hiding warnings or that you suspect may have low hide characteristics. Apply the paint to the sealed (glossy) side of a white drawdown card.

The wet paint film should be allowed to setup naturally for at least five minutes. After this initial setup time, you can speed up the drying time by placing the sample in a low heat environment  $(120^{\circ} \text{ to } 150^{\circ} \text{ F})$  with forced air ventilation, such as a fan or hair dryer. The paint <u>must</u> be completely dry in order to obtain good results.

Deep colors require up to two hours under a fan or hair dryer to fully stabilize before measuring. While the surface color may not change to the eye, the spectrophotometer's light can penetrate into the paint film and measure through a partially dry batch. This occurs frequently with 4B base colors that contain large amounts of oxide red and oxide yellow. Large negative adds in a correction typically indicate that the batch sample needs further curing to achieve an accurate measurement.

Remember, you decide if the color match is ready for customer acceptance. If you ask it to, the software will almost always find some way to further improve the match. This does not mean that it is not perfectly acceptable. Proper target presentation and preparation of the batch sample are essential in obtaining consistently high quality color matches.

# SOFTWARE OPERATION

#### Introduction

This section of the manual explains how the color matching program guides you through the process of formulation using a series of menus and prompts. Step-by-step instructions are given.

Windows and popup windows display the available functions. Use the mouse to move the arrow cursor to the desired option, or type the requested option's underlined character while holding down the <Alt> key. When you select a function, the monitor displays a screen with one or more fields that require additional information or selections. The computer fills in some fields; other fields require your input.

The key to effective use of this system is to pay close attention to the cursor and the information displayed by the screens. There may be requests for input or additional selections. The program also displays informative messages about the state of the system. The blinking cursor shows you where to enter the requested information.

As you proceed through the available windows and popup windows, remember that when the system is looking for data input the cursor will flash in the appropriate field. Do not be fearful of hitting an incorrect key, for the worst that can happen is the system will ask for other data, or that you will have to repeat a procedure. These conventions are applied throughout the color matching system.

## **Spectrophotometers**

There are two types of spectrophotometers in use with the COLOR<sub>x</sub> software.

The MatchRite iVue is a non contact desktop spectrophotometer which is the latest unit for use with the Benjamin Moore  $COLOR_x$  software.

The MatchRite CF57 is also a desktop spectrophotometer.

# Allow the spectrophotometer warm up for a few minutes before attempting to execute any functions.

When the color matching program is accessed, the program looks for the Spectrophotometer and automatically configures the type of instrument that is connected to the computer. If a spectrophotometer is not attached or is not communicating with the computer, the message below will appear.



The appearance of this error indicates that the software was unable to communicate with the spectrophotometer. There are several possible causes of this failure:

- 1. The spectrophotometer is not turned on.
- 2. The cable not connected. Insure that the cable is securely attached to both the computer and the spectrophotometer.
- 3. The cable is defective. If you are unable to resolve the problem by any other means, consider replacing the cable.
- 4. Incorrect COM port set. Most computers have more that one serial port and the wrong port may have been assigned to the spectrophotometer.
- 5. The wrong spectrophotometer is assigned in the program.

See page 52 in the Maintenance section to correct the port assignment and the spectrophotometer assignment.

# System Start-up

At the COLOR<sub>x</sub> screen, click on the **Color Matching** button as shown below.

	Enter Color Number or Name:
	Select Product Code:
	Select Company: Search All
	Benjamin Moore & Co.
	Search Options:
	Color Name starts with
	Search
Q	uick Color Search
S	earch Colors within a Company
S	earch Customer Files
~	

Note that only the left panel changes. You are now ready to use the color matching system, (figure 2-3.)

Benjamin Moore Pair	ts Your Benjamin Moore Reta
Enter Sample ID:	Maintenance Help Colors mixed on: 06/11/2013  Customer: Color: Company:
Formulate in Product: Average Sample Completed Measurements	o <u>G</u> al ● Quart ● Five Colorant (Gallon)
Select Base & Colorants Find Closest BM Color	Cost: Revised: Num of Cans: Labels to Print:
Quick Color Search	
Color Matching	Save to Reformulate Modify Comments Print

Figure 2-3

#### **Calibration**

The software automatically checks for a current calibration. The system will not allow you to color match unless the calibration is current. If the calibration is not current, the software will prompt you to calibrate. The system requires only one calibration daily, but additional calibrations are acceptable if you are unsure, or if conditions in the building (temperature, power supply, etc.) change during the course of the day.

Proper calibration is very important. The accuracy of all your results depends upon precise calibration to the white reference tile. If you calibrate with a dirty tile, if the tile doesn't completely cover the area-of-view aperture, or if you had something other than the white reference tile at the sample port, the computer may still accept the results, but the accuracy of all subsequent measurements will be adversely affected. An absolutely clean reference tile with no cracks is essential for proper calibration and correct readings. Clean your reference tile regularly.

To calibrate, click on <u>Maintenance</u> then move the mouse pointer to <u>Spectrophotometer</u> then click on <u>Calibrate</u> and as shown in figure 2-4.

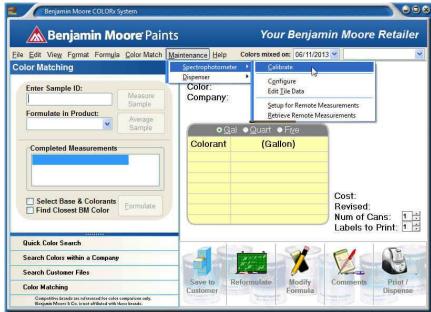


Figure 2-4

# MatchRite Spectrophotometers

If you have a MatchRite CF57 spectrophotometer, follow the steps below.

After clicking **<u>C</u>alibrate**, the following dialog will be displayed:



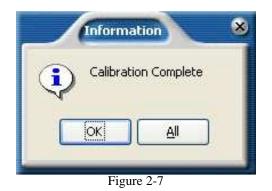
Figure 2-5 Calibration Screen

Remove the plastic cap which covers the white tile that is built into the sample holder and close the sample holder. When the Reference tile is in place, click on "**OK**", or press **Enter** to continue.

If the white tile calibration is successful, the message below will appear.



Pull back the sample holder assembly away from the unit so that the aperture is open and click "**OK.**" When complete, the message in figure 2-7 will appear.



Calibration is now complete. Close the sample holder and replace the protective cap over the white tile. Click on "**OK**" to return to the Main Color Matching screen.

# <u>Note</u>: If there is an excessive amount of light in the area, such as direct sunlight on the spectrophotometer, place your hand above the unit over the aperture to shade any excessive light from shinning through the open aperture. Be careful not to cover the aperture with your hand.

If you have a MatchRite iVue spectrophotometer, you will only be prompted to calibrate on the white tile.

#### Matching a Color Target

Enter a sample name in the **Enter Sample ID** box. Then, in the **Formulate in Product** box, enter the product number you wish to match the sample color in. You can also click on the arrow next to the field for a drop down list of all Benjamin Moore products as shown in figure 2-8.

Benjamin Moore COLORx System	n an		20
🛕 Benjamin Moor	e Paints N	Your Benjamin Moore	Retaile
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>C</u> ol	or Match Maintenance Help Colors n	mixed on: 06/13/2013 👻	
Formulate in Product:	easure ample verage		
546         Regal Select Premium In           547         Regal Select Premium In           548         Regal Select Premium In           549         Regal Select Premium In           550         Regal Select Premium In	Iterior Paint - Matte Finish Iterior Paint - Eggshell Finish terior Paint - Pearl Finish Iterior Paint - Semi-Gloss Finish Flat Finish Eggshell Finish	Cost: Revised: Num of Ca Labels to	States and states
Quick Color Search Search Colors within a Company Search Customer Files			

Figure 2-8

Once you choose your product, click on the Measure Sample button.

A pop up screen appears instructing you to **Place color sample at port. Select OK when ready to measure...** 

E Senjamin Moore COLOR: System		000
Benjamin Moore Paints	Your Benjam	in Moore Retailer
<u>Eile E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>C</u> olor Match <u>M</u> a	intenance Help Colors mixed on: 06/13/2013	3 💙
Color Matching Enter Sample ID: Light Beige Formulate in Product:	Customer: Color: Company:	
549 Average Sampleted Measurements	Confirm S = Place color sample at port. Select OK when ready to measure OK Cancel	
Select Base & Colorants Find Closest BM Color		Cost: Revised: Num of Cans: 1 + Labels to Print: 1 +
Quick Color Search		e1 (P
Search Colors within a Company Search Customer Files	- Carlos Harris	
Color Matching Competitive brade are referenced for color comparison only.	Save to Reformulate Modify Formula	Comments Print / Dispense

Figure 2-9

When you have carefully placed the target sample at the port (aperture) of the spectrophotometer, click on the **OK** button. The system measures the color sample and displays the completed measurement in the left panel as shown in figure 2-10.

🗶 🖉 Benjamin M	loore COLORx System			
🛦 Benja	min Moore Paint	s Yo	our Benjamin Moore	Retailer
<u>File Edit View</u>	Closest Benjamin Moore color	rs for:		× 💌
Enter Sam Formulate Complete Tan Select I Y Find Cl	Tan	AF-130 (Truffle) 1033 (Hillsborough Beige) 1082 (Cream Sode) AF-140 (Pensive) HC-79 (Greenbrier Beige)	The colors to the left represent the closest Benjamin Moore colors to your color sample. To select a Benjamin Moore color click on the color swatch or color description. Click "Formulate Color" to calculate a match for the measured sample. Click "Cancel" to abort this sample.	s: 1
Quick Color Search Color Search Cust	Formulate Color	Cancel		
	referenced for color comparison only, is not affiliated with these brands:	Save to Reformulate	Formula Comments	Print / Dispense

Figure 2-10

At this point you can measure more color samples. The system will list them in the **Completed Measurements** box as shown below in figure 2-11.

Enter Sample ID:	
	Measure
Formulate in Product:	Sample.
	Average Sample
Completed Measurements	
Light Beige 549	
Deep Red 524	1.1
Blue Gray N53	7
Select Base & Colorants Find Closest BM Color	Eormulate
Quick Color Search	
Search Colors within a Company	
Search Customer Files	
N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
Color Matching	

Figure 2-11

You can click on the **<u>F</u>ormulate** button here or you can accomplish several functions at this point by highlighting a completed measurement sample with the mouse and right clicking on it. A pop up screen appears that allows you to: **Re-measure Sample** (highlighted sample), **Average Sample** (highlighted sample), **Formulate**, **Display Reflectance** (highlighted sample), **Delete Measurement** (highlighted sample), and **Delete All Measurements**. See figure 2-12.

inter Sample ID:	Measure
ormulate in Prod	Sample
ofmulate in Prod	Average Sample
Completed Meas	urements
Light Biege	549
Deep Red	524
Blue Gray Measure San	N537
Remeasure S	- 10
<u>Average Sam</u>	
R <u>e</u> trieve Rem	note Measurements
i <u>E</u> ormulate	
Display Refle	ctance
Delete Measu	urement
Delete All Me	easurements

When you are finished measuring the color sample, click on the **Formulate** button. The last sample you measured will be displayed as shown in figure 2-13.

A Benjamin Moo	re Paints		Υοι	ır Benjarı	iin Moore	e Retaile
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>C</u> o	olor Match Main	tenance <u>H</u> elp	Colors mixed	d on: 06/13/201	3 🕙 Blue Gray	
Formulate in Product:	leasure ample	Customer: Color: Company:	Blue Gray	1 - 1 - 7 - 7 - 1 - 1 - 1 - 1 - 1 - 1 -		
34	Werage Sample	• <u>G</u>	al o <u>Q</u> uart ·	● Fi <u>v</u> e		Closest
Completed Measurements		Colorant	N537 - 2>	(Gallon)		BM Color
		S1		2.2500		
		W1 M1		3.7500 7.0000	-	
		B1		1.0000	-	
Select Base & Colorants Find Closest BM Color	rmulate				Cost: Revised: Num of C Labels to	TRACES AND A COMPANY
Quick Color Search						
Search Colors within a Company		<b>3</b>	the second	1	C/c	Ali
Search Customer Files		THE PART IN	1 al		Ver	
Color Matching			Reformulate	Modify	Comments	Print /
Competitive brands are referenced for color compa	rison only.	Customer	Support Sand	Formula	Sumplement State	Dispense

Figure 2-13

## **Closest Benjamin Moore Color**

If you wish to view the closest Benjamin Moore color to the measured sample, click on the **Closest BM Color** button to the right of the formula and the following screen will appear listing the five closest Benjamin Moore colors to the sample.

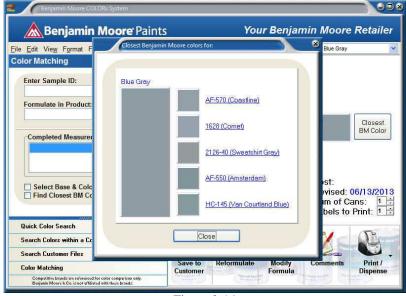


Figure 2-14

If you click on one of the displayed Benjamin Moore colors, the stored prescription for that color will be displayed.

## **Select Base and Colorants**

This option will allow you to override the automatic base and colorants selected by the system. This feature may be useful if you are out of a particular base and would like to try to match the color sample in another base, or use a different combination of colorants.

To use this option, measure and average the sample as described above. Next, click on the **Select Base and Colorant** box. A checkmark will appear in the box as shown in figure 2-15.

Enter Sample ID:	
	Measure Sample
Formulate in Product:	
v	Average Sample
Completed Measurement	S
Blue 522	2
Select Base & Colorant	Formulate
Select Base & Colorant	5 Eormulate
Find Closest BM Color	Eormulate
Find Closest BM Color	
Find Closest BM Color	

Now click on the "**<u>F</u>ormulate**" button and the Select Base and Colorants screen will display. (figure 2-16)



Figure 2-16

If you wish to change the base level, enter the desired base level (1X - 4X) in the **Select Base** box. If the current base level is acceptable, simply leave it blank. After you have chosen a base, or have decided to allow the system to choose the base, you can enter your own choice of colorants by moving the mouse pointer to the white box next to the desired colorant and left clicking the mouse. This will place a check mark in the box representing the colorant you chose. *Note: You must choose at least three colorants*. When you are finished, click on the **OK** button.

The sample formula with the colorants you chose will be displayed as the current sample on the Main Color Matching screen.

Benjamin Moore COLORx	öystem					
🛕 Benjamin Mo	<b>oore</b> Paint	s	Your Benjamin Moore Retailer			
<u>Eile E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la	<u>C</u> olor Match M	laintenance <u>H</u> elp	Colors mixed on: 06/13/20	)13 💙 Tan 💉		
Color Matching Enter Sample ID:	Measure Sample	Customer: Color: Company:	General Account Tan Custom Color Match	1		
×	Average Sample	• <u>G</u>	al ● <u>Q</u> uart ●Fi <u>v</u> e	Closest		
Completed Measurements		Colorant	522 - 2X (Gallon)	BM Color		
completed medsarements		Y3	2x 30.7500			
	-	S1	0x 29.0000			
		W1	2x 17.7500			
Select Base & Colorants Find Closest BM Color	Eormulate	R3	0x 18.2500	Cost: Revised: 06/13/2013 Num of Cans: 1÷ Labels to Print: 1÷		
Quick Color Search						
Search Colors within a Company	ili.					
Search Customer Files				Vera Co.		
Color Matching		Save to I Customer	Reformulate Modify Formula	Comments Print / Dispense		
Competitive brands are referenced for color Benjamin Moore & Co. is not affiliated with (		Contraction of the	Statistics of the second second			

Figure 2-17

#### Find Closest Color Prior to Formulating Sample

If you wish to find the closest Benjamin Moore color for a sample without formulating, simply measure and average the sample then click on the **Find Closest BM Color** box under the Completed Measurements area. This will place a check mark in the box, (figure 2-19.)

Enter Sample ID:	
	Measure
Formulate in Product:	Sample
	Average Sample
Completed Measurements	
Tan 522	
Select Base & Colorants Find Closest BM Color	Eormulate
Quick Color Search	
1 000 1011 10 10 10 10 10 10 10 10 10 10	
Quick Color Search	

Next, click on the **Formulate** button. The system will now compare the sample color and return a list of the five closest Benjamin Moore colors to it. See figure 2-20 below.

e <u>E</u> dit Vie <u>v</u> blor Match	Closest Benjamin I	Aoore colors for:		
Complete Comple	Ten	AF-130 (Truffle)         1033 (Hillsborough Beige)         1082 (Cream Soda)         AF-140 (Pensive)         HC-79 (Greenbrier Beige)	The colors to the left represent the closest Benjamin Moore colors to your color sample. To select a Benjamin Moore color click on the color swatch or color description. Click "Formulate Color" to calculate a match for the measured sample. Click "Cancel" to abort this sample.	s: 1 rint: 1
Quick Color Search Color Search Cust	Formula	e Color Cancel		Ð

You now have the option of clicking on the **Formulate Color** button which will formulate the sample you have measured, or you can choose one of the five closest Benjamin Moore colors

and retrieve a stored prescription for the chosen color. In our example, we will pick the first color listed, 320 (Amarillo.) Just click on the name and the following screen will appear with the prescription for color 320 (Amarillo) as shown below.

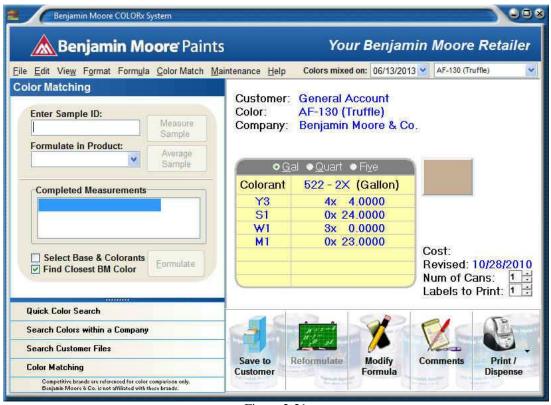


Figure 2-21

# **Printing the Sample Formula**

At this point you may wish to print the formula. If you wish to print the gallon formula (default), just click on the **Print / Dispense** button on the bottom right of the screen.

You can print multiple labels of the displayed formula by changing the number in the **Labels to Print** box.

If you wish to view or print the formula in a quart or a five gallon, simply click on the desired size circle above the formula grid box. The formula on the screen will change to reflect the size you have chosen. When you click on the **Print** button, the formula printout will also reflect the size you have chosen.

## **Dispensing the Formula to an Automatic Dispenser**

If you have an automatic dispenser connected to the  $COLOR_x$  software, you can dispense the displayed formula by configuring the **Print** button to dispense. To set up a **Dispense** button, see **Configuring the Print / Dispense Button** on page 53. The system will send the formula displayed on the screen to the automatic dispenser and printer.

If you wish dispense a quart or a five-gallon formula, click on the desired size circle above the formula grid box then, click on the **Print / Dispense** button.

#### **Correcting a Formula**

Correction is a method of correcting an initial formulation. Most of your matches will be successful the first time through using the Formulation program. For those matches that are not optimal,  $COLOR_x$  provides batch correction as a method for further improving the quality of an initial formulation.

A correction to the formula can be done automatically or manually. First we'll discuss automatic correction or batch correction.

#### **Automatic Correction**

To perform an automatic correction, be sure the sample you wish to correct is the current sample on the color matching main screen. In this example see figure 2-22

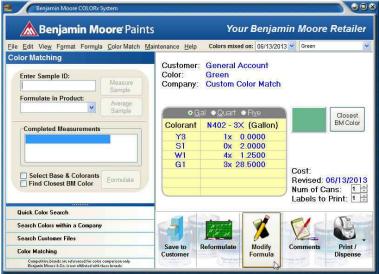


Figure 2-22

Choose the **Modify Formula** button on the Main Color Matching screen. The Modify Color Formula screen will open as shown in figure 2-23.

Color Number:*						Color: Gr	een	
Color Name:*	Name: <sup>★</sup> Green			al ⊜Quart ⊜Fi <u>v</u> e				
Product / Base:	N402	v	1	3X	~	Colorant	N402 - 3X (Gallon)	
* A color	number or	color na	me li	s required.		Y3	1x 0.0000	
nter Formula C	orraction					S1	0x 2.0000	Origina Targe
		-			~	W1	4x 1.2500	lange
Adjust Origin	al Formu	la:			<u> </u>	G1	3x 28.5000	
Colorant	S	ub	(	Gallon)	^			
Y3 - Oxide Ye	llow [	30	x					
S1 - Black	ſ	1	x					
W1 - White	ſ	2	x					)
G1 - Thalo Gre	een [	1	x			□ Sh	ow Original Formula	
	1	1				Baco	mmendations:	
	ſ	1				Tieco	initerradions.	
	ſ	3						
	ſ				~			
		et.			×			

Figure 2-23

This screen shows the current formula on the right that you are going to modify, including the color swatch. To perform an automatic correction, click on the **Formulate Correction** button. The system will prompt you to place the sample at the port (figure 2-24.)



Place the sample at the port and select **OK** when you are ready to measure.

When the measurement is complete, the system will prompt if you would like to average another measurement (figure 2-25.) When you are finished, it will calculate the difference between the target and the sample and give a correction by listing the amount of colorant(s) to be added to the current formula to bring the sample color closer to the target sample. The add appears as a correction in the Formula Correction grid on the left of the screen as shown in figure 2-26. The **Measured Sample** swatch is displayed under the **Original Target**.

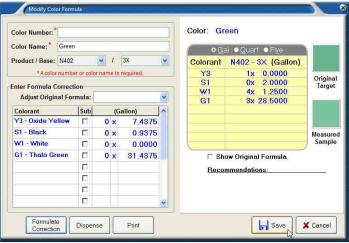


Figure 2-26

If you are satisfied with the correction, click the **Save** button and the formula will be totaled and saved as shown in figure 2-27.

🔬 Benjamin Mo	pore Pain	15	Tour Benjar	nin Moore Retaile	
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la	Color Match	Maintenance Help	Colors mixed on: 06/13/20	13 🕙 Green	
olor Matching Enter Sample ID: Formulate in Product: Average		Customer: Color: Company:	Green		
	Sample	• <u>G</u> a	al ● <u>Q</u> uart ●Fi <u>v</u> e	Closest	
Completed Measurements		Colorant	N402 - 3X (Gallon)	BM Color	
		Y3	1x 7.4375		
		S1 W1	0x 2.9375 4x 1.2500	-	
1		G1	4x 1.2500 4x 27 9375		
Select Base & Colorants Find Closest BM Color	Eormulate			Cost: Revised: 06/13/201 Num of Cans: 1 Labels to Print: 1	
Quick Color Search					
Search Colors within a Company	v		the second second	No De	
Search Customer Files	-			Vera Co.	
Color Matching		Save to I	Reformulate Modify	Comments Print /	

Figure 2-27

## **Manual Correction**

#### **Correcting a Formula Manually**

You can correct a formula manually by adding or subtracting the amount of colorant that the system displays after a match is calculated. For example, after you measure and formulate the target sample, the displayed formula can be modified. In the following example, a target sample has been measured and formulated. The Modify Color Formula screen has been opened as shown below.

Color Number:*					Color: Re	ef Blue	
Color Name:* R	ef Blue				• <u>G</u> a		
Product / Base: N	536	v 1	1X	~	Colorant	N536 - 1X (Gallon)	
*A color nu	mber or color	name is	required.		S1	0x 13.5000	0.1.1
nter Formula Corr	oction				M1	0x 9.2500	Origina Target
Adjust Original				v	B1	1x 7.5000	ranger
Colorant	Colorant Sub			^			
S1 - Black		x					
M1 - Magenta	Г	x					
B1 - Thalo Blue		x					
					□ She	ow Original Formula	
					rieco	interrutations.	
				~			
51 - Indio Blue		X				ow Original Formula mmendations:	

Figure 2-28

Before we add the colorant to the can, we may want to add 2 shots of Magenta (M1) to the formula. We also want to subtract 5 1/2 of a shots of Blue (B1). Finally, we want to add 10 shots of White (WH) to the formula.

To do this, move the mouse pointer to the Formula Correction box and in the shot column of the (M1) row enter 2.0. Next move to the B1 row. Use the mouse to place a check in the **Sub** (Subtract) box. Then type 5.50 in the shot column. By checking the Sub box and putting in 5.50, this will subtract 5 1/2 of a shots of B1 from the formula, (figure 2-29.)

Colorant	Sub	(Gallon)			^
S1 - Black			x		
M1 - Magenta		0	x	2.0000	
B1 - Thalo Blue	ঘ	0	x	5.5000	
	Ē				
					~

Figure 2-29

To add 10 shots of White (W1) to the formula, Move the pointer to the blank grid box in the Colorant grid below B1. Click on it to highlight and type W1. Now move the mouse pointer to the shot column and enter 10.0 (figure 2-30.)

Adjust Original For	mula:				~
Colorant	Sub		(G	allon)	^
S1 - Black			x	1	
M1 - Magenta	Г	0	x	2.0000	111
B1 - Thalo Blue	R	0	x	5.5000	
W1 - White 🔹		0	x	10.0000	
Y3 - Oxide Yellow S1 - Black W1 - White					
Y2 - Organic Yellc S2 - Gray	Г				
M1 - Magenta B1 - Thalo Blue					v

Figure 2-30

Once the changes are entered, click on the Save button. The colorant amounts you added and subtracted will total up from the left column and displayed on the main screen. In this example, note that 2 shots of M1 and the 10 shots of W1 were added. Also note that the 5 1/2 shots of B1 was subtracted from the finalized formula as show below in figure 2-31.

🛎 🖉 Benjamin Moore COLORx S	öystem		_			008
🛦 Benjamin Mo	<b>oore</b> Paints	i.	You	ır Benjam	in Moore	Retailer
<u>File E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la	<u>Color Match</u>	intenance <u>H</u> elp	Colors mixed	d on: 06/19/2013	Reef Blue	~
Color Matching Enter Sample ID: Formulate in Product:	Measure Sample	Customer: Color: Company:		The second s	omized	
	Average Sample	o <u>G</u> ∂ Colorant		● Fi⊻e < (Gallon)		Closest BM Color
Completed Measurements		S1 W1 M1 B1	0x 13 0x 10 0x 11	3.5000 0.0000 1.2500 2.0000		
Select Base & Colorants Find Closest BM Color	Eormulate				Cost: Revised: Num of C Labels to	the second second
Quick Color Search		- d		CAR	-	(5)
Search Colors within a Company	8	14 A	All and	No.	12 S	
Search Customer Files		Save to	Reformulate	Modify	Comments	Print /
Color Matching Competitive brands are referenced for color Benjamin Moore & Co. is not affiliated with t		Customer	veronnullate	Formula	Comments	Dispense

Figure 2-31

# Reformulate

The **Reformulate** button allows you to match the current measured sample on the screen in a different product. For example, you measure a brown target and formulate it in 629 Aura interior flat, you may also want to make it in 632 Aura interior semi gloss to use for trim. You don't have to re-measure the target chip again. Once you measured the chip and have the formula displayed on the screen, simply click on the Reformulate button as shown in figure 2-32.

Benjamin Moore Paints	Your Benjamin Moore Retail
Edit View Format Formula Color Match Mai Ior Matching	
Enter Sample ID: Measure Sample	Customer: General Account Color: Gray Company: Custom Color Match
Completed Measurements	● <u>G</u> al ● <u>Q</u> uart ● Fi <u>v</u> e Closest Colorant 629 - 2× (Gallon) BM Colo
	eformulate Color × 500 0000 2500
Select Base & Colorants Form Gray	Value in Product: Value in Prod
Quick Color Search	lect Base & Colorants
Search Colors within a Company	ormulate X Cancel
Color Matching	Modify Comments Print /

Figure 2-32

Choose 632 Aura in the **Formulate in Product** box and click on the **Formulate** button. The formula for 632 Aura now appears on the screen, (figure 2-33.)

Benjamin Moore COLORx System			00
Benjamin Moore Paint	S	Your Benjan	nin Moore Retailer
e Edit View Format Formula Color Match M	laintenance <u>H</u> elp	Colors mixed on: 06/19/201	3 🗸 Gray
olor Matching Enter Sample ID: Formulate in Product: Average	Customer: Color: Company:	General Account Gray Custom Color Match	
Sample	• <u>G</u>	al	Closest
Completed Measurements	Colorant	632 - 2X (Gallon)	BM Color
	Y3	0x 11.7500	
	S1	2x 29.7500	
	W1	3x 12.0000	
Select Base & Colorants Find Closest BM Color	R3	0x 10.2500	Cost: Revised: 06/19/2013
			Num of Cans: 1 : Labels to Print: 1 :
Quick Color Search			
Search Colors within a Company			
Search Customer Files			Vera Co .
Color Matching	Save to Customer	Reformulate Modify Formula	Comments Print / Dispense
Competitive brands are referenced for color comparison only. Benjamin Moore & Co. is not affiliated with these brands.	Constant and a second s	The state of the s	

Figure 2-33

# **Comments** Button

The Comments button at the bottom of the screen allows you to write comments for the displayed formula. Simply click on the button and a popup screen appears where you can add your comments. When you finish typing in the comments, click on the **Save** button. The text on the Comment button will turn red to let you know that a comment has been added to that color.

# **Creating a Formula Manually**

#### Add Manual Formula

This feature will allow you to enter a new formula manually without performing a measurement. This option is helpful if you know a formula for a particular sample which a customer has and you would like to store it for future reference.

To begin, click on the **Formula** dropdown on the Main Color Matching screen. When the dropdown screen appears, as in figure 2-34, choose <u>A</u>dd Manual Formula.

Add Manual Formula
Manual Dispense Colorants
Convert CP Formulas to Gennex
Modify Formula
<u>R</u> eformulate
Also Known As
Closest BM Color
View Color Foundation
Save to Customer
Comme <u>n</u> ts
Delete Formula
Figure 2-34

The Manual Color Formula screen appears as shown below.

Color Name	ver:*	
Product / Ba		~
*A	color number or color name is required.	×
Cal		
Plo	ase select your can size	
- Ple	case select your can size	
- Ple	Gallon O Quart O 5-Gallon	-
- Ple		
- Ple	Gallon O Quart O 5-Gallon	
- Ple	Gallon O Quart O 5-Gallon	

Figure 2-35

Select the size of the can for the formula and click **OK**.

Enter a color number or name, and the product and base for the existing formula in. Now you can enter the colorants and amounts that you put in to the formula by using the mouse or the Tab key, (figure 2-36.)

Color Number:*	0				
Color Name:*	Tan			2	
Product / Base:	W103	v	E	1X	v
* A color	number or cold	rnam	ie is	required.	
Enter Formula					
Colorant	1		(G	allon)	~
S1 - Black	-	0	x	15.0000	
Y3 - Oxide Ye	llow	0	x	28.0000	
M1 - Magenta		0	×	6.0000	
					~

Figure 2-36

When you have finished, click on the **Save** button and the formula will be saved and displayed as shown below.

🗥 Benjamin Mo	ore Pair	nts	Your Benja	min Moore Retaile
<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la	Color Match	Maintenance Help	Colors mixed on: 06/19/20	013 💙 Tan
Ior Matching Enter Sample ID: Formulate in Product:	Measure Sample	Customer: Color: Company:	General Account Tan Formula Created by	User
<b>V</b>	Average Sample	• <u>G</u> a	al	Closest
Completed Measurements		Colorant	W103 - 1X (Gallon)	
		Y3	0x 28.0000	
		S1 M1	0x 15.0000 0x 6.0000	
Select Base & Colorants Find Closest BM Color	Eormulate			Cost: Revised: 06/19/201 Num of Cans: 1 Labels to Print: 1
Quick Color Search				01 5
Search Colors within a Company				
Search Customer Files				Ver V
Color Matching		Save to I	Reformulate Modify Formula	Comments Print /

Figure 2-37

# Dispensing a Formula Manually Using an Automatic Dispenser

If your system is connected to an automatic dispensing machine, you can dispense a formula manually by clicking on the **Formula** dropdown on the Main Color Matching screen and choosing <u>Manual Dispense</u> **Colorants** as shown below.

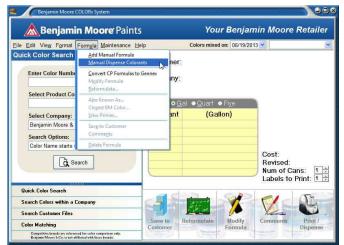


Figure 2-38

Y3 - Oxide Yellow S1 - Black	x	
S1 - Black		
of black	×	
W1 - White	×	
S2 - Please select your ca B1 - O Gallon O Quart R2 - V OK		
R3 - Oxide neu	×	
G1 - Thalo Green	×	
R1 - Red Toner	×	
Y1 - Organic Yellow 1	x	~

Figure 2-39

Choose the container size - Gallon, Quart, or 5-Gallon and The colorants displayed on the screen will depend on the system that is set up on your machine – Architectural or Water Borne colorants.

Colorant		G	allon	^
Y3 - Oxide Yellow	0	х	10.0000	
S1 - Black	1	x	20.0000	
W1 - White	0	x	8.0000	
		x		
S2 - Gray		x		
M1 - Magenta		x		
B1 - Thalo Blue		x		
01 - Orange		x		
R2 - Organic Red		x		
R3 - Oxide Red		x		
G1 - Thalo Green		x		
R1 - Red Toner		x		
Y1 - Organic Yellow 1		×		~
		nt	X Can	_

Enter the amounts - ounces and shots of the colorants you wish to dispense and click on Dispense.

# Section 3 Customer Transaction Database

A customer database is integrated into the  $COLOR_x \otimes$  software. Using the customer database allows you the capability to save information on all your customers.

Any color sold to a customer can be added to the database whether it was matched at the store or simply retrieved from the formula book. This powerful addition to your software, organized in an easy to understand format, will ensure that your customers always receive the same formula they originally purchased.

## Saving a Color to a Customer

To demonstrate this, choose a color from the prescription book and save it to a customer. In this example, we've chosen Sun Valley (350) in product 524 (Aura Eggshell Finish.)

E CBenjamin Moore COLORx System			008
Benjamin Moore Paints		Your Benjam	in Moore Retailer
Eile Edit View Format Formula Maintenance He	lp	Colors mixed on: 06/19/2013	350 (Sun Valley)
Quick Color Search Enter Color Number or Name: Select Product Code:	Customer: Color: Company:	General Account 350 (Sun Valley) Benjamin Moore & Co.	
v	• <u>G</u>	al ● <u>Q</u> uart ●Fi <u>v</u> e	
Select Company: Search All	Colorant	524 - 3X (Gallon)	
Benjamin Moore & Co.	W1	1x 8.0000	Minimum 6 minute shake time
Search Options:	Y2	14x 13.0000	required.
Color Name starts with	S2	1x 8.0000	
Search	R3	0x 6.0000	Cost: Revised: 10/29/2010 Num of Cans: 1 + Labels to Print: 1 +
Quick Color Search			
Search Colors within a Company	3		V C Real
Search Customer Files			Vera Co.
Color Matching	Save to Customer	Reformulate Modify Formula	Comments Print / Dispense
Competitive brands are referenced for color comparison only. Benjamis Moore & Co. Is not affiliated with these brands.	L G	Transa and	

Figure 3-1

Click on the Save to Customer button and the window below opens up.

Note: The customers listed below are for demonstration purposes only.

Customer 💙 Contains 💌	
Search colors mixed betwee	n the period of: 🗌
06/19/2013 M and 06/	19/2013 🛛 🐴
Customer	Phone
± General Account	() -
± Fresh Start Design	(800) 555-2678
± Klein, Robert	(973) 555-1263
+ Painter's Express	(800) 555-7800
Quick Color Search	
Quick Color Search Search Colors within a Compa	any
	ny
Search Colors within a Compa	any

## Adding a New Customer

At this point you could add this color to an existing customer or create a new one. For this example, let's create a new customer. Click on the **Add Customer** button.

The window below opens up. Enter either a last name for a customer or a company name. You can also add other information, if desired, (figure 3-3.)

Last Na	ne:*	
First Na		1
Comp		
Phe		
Address		
Street:	593 Main Street	
City:	/ontvale	
State:	J <b>Zip:</b> 07645	
Country:		
* A .	stomer last name or company	is required

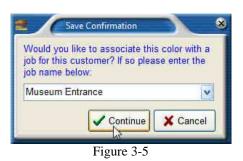
Figure 3-3

You can save this information by clicking on the **Save** button or if you want to add more detailed information about the customer click on the **Details** button as shown below.

		ation	Additional Inf	P			
Last Nar	ne:		Account #	34090	Type:	Contractor	2
First Nar	ne:		Sec Phone:	() -	Ext:	Architect Business	(apr)
Compa	ny:*	Painter's Express	Fax:	() -	Ext:	Contractor Designer	2
Pho	ne:	(800)555-7800 Ext:	Email:			Homeowner	1
Address -			Comments				
Street: 4593 Main Street							
City:	Mont	vale					
State:	NJ	Zip: 07645					
		* A customer	last name or company is	required.			

Figure 3-4

When you finish entering the information, click on the **Save** button. Another pop-up window appears asking you if you wish to associate the color to a job as seen in figure 3-5.



If you wish you can enter a job for this color such as a living room, bedroom, or a jobsite. You can also leave this blank and just click continue. In our example, we entered a jobsite. After clicking **Continue**, this color will be stored under the defined customer and jobsite. You'll notice in figure 3-6 that the customer we assigned this color to appears above the color name.

Benjamin Moore COLORx System					
ABenjamin Moore Paints	i	Your B	enjamin	Moore	Retailer
ile <u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Form <u>u</u> la <u>M</u> aintenance <u>H</u> ∉	elp	Colors mixed on:	06/19/2013 💙	350 (Sun Val	ley) 💙
Quick Color Search	Customer: Color: Company:	Painter's Expr 350 (Sun Valle Benjamin Moo	ey)		
	• <u>G</u>	al ● <u>Q</u> uart ●Fi⊻	e		
Select Company: Search All	Colorant	524 - 3X (Ga	allon)		
Benjamin Moore & Co.	W1	1x 8.00	1000 C		ite shake time
Search Options:	Y2	14x 13.00	00	quired.	
Color Name starts with	S2 B3	1x 8.00 0x 6.00	Geo		
Search		0.00	C R N	cost: levised: 1 um of Ca abels to F	and a second
Quick Color Search		-			
Search Colors within a Company			1		ali
Search Customer Files		the state of the		los	
Color Matching	Save to I Customer		odify Co rmula	mments	Print / Dispense
Competitive brands are referenced for color comparison only. Benjamin Moore & Co. is not affiliated with these brands:		The second second	1		Sistense

Figure 3-6

If you wish to assign a color to an existing customer, highlight the customer and click on the **Save** button as displayed in figure 3-2.

# Searching for a Customer and Colors

You can locate a customer or a color at a later date by clicking on **Search Customer Files** on the main screen. The Search Customer Files panel opens as shown below.

Customer V Contains V	
Search colors mixed betwee	
06/19/2013 M and 06/	19/2013 🖌 🚹
Customer	Phone
General Account	
±l Fresh Start Design	(800) 555-2678
± Klein, Robert	(973) 555-1263
±l Painter's Express	(800) 555-7800
Quick Color Search	
Search Colors within a Compa	any
Search Customer Files	

Figure 3-7

Now click on Painter's Express and it will expand to show colors made on a particular day, the color made and the job the color was assigned to. See figure 3-8 below.

Customer V Contains	•			
Search colors mixed b 06/19/2013 and				
Customer		Phone		
+ General Account				
±l Klein, Robert ±l Painter's Express		(973) 555-1263 (800) 555-7800		
350 (Sun Valley)	52			
Quick Color Search	*****			
2.0 Miles 0.5.5 Miles 7.5		2		
Quick Color Search		į		
Quick Color Search Search Colors within a l				

If you double click on the color, it will appear back on the screen as it was shown in figure 3-6.

Customers can be searched by Customer name, Phone, Color, Job, Account, or Comments. Let's search the name by entering the start of the name or part of the name in the Contains/Starts With box as shown below in figure 3-9.

Customer 🔽	Contains	*	
Customer Phone Color Job	s mixed betw	veen the p 06/19/201	
Account Comments		Ph	ione
±l Fresh Start -l Klein, Robe		1000	, 00) 555-2678 73) 555-1263
1028 (Span	ish Brown)	N401	06/19/2013
2067-30 (Tw	vilight Blue)	548	06/19/201
AF-20 (Mas	carpone)	522	06/19/2013
+ Painter's Ex	(press	(80	00) 555-7800
Quick Color	Search		
Search Color	s within a Co	npany	
Search Custo	omer Files		
Color Matchi	200		



Colors can be searched by date by clicking on the check box and entering the date range to be searched as shown in figure 3-10.

Search colors mixed betwee	en the period of: 🗹
06/27/2012 <b>and</b> 06/	19/2013 🔽 🏄
Customer	Phone
+I General Account	
General Account     Fresh Start Design	(800) 555-2678
+I Klein, Robert	
± Painter's Express	(973) 555-1263 (800) 555-7800
Quick Color Search	
Search Colors within a Comp	any
Search Customer Files	
Color Matching	
HERE REMEMBER REMEMBER REMEMBER	
Competitive brands are referenced for a Benjamin Moore & Co. is not affiliated v	

Both customers and colors assigned to them can also be searched by narrowing the search criteria as shown in figure 3-11. This example searches for a Customer containing "Fresh Start Designs" with colors mix between "12/19/2011 and 2/23/2012."

	~		
Search colors mixed be	tween th	e period of: 🗹	
06/27/2012 <b>and</b>	06/19/2	2013 🔽 🌆	
Customer	F	hone	
H General Account	(	) -	
Fresh Start Design	(800) 555-2678		
863 (Pearl Gray)	524	06/19/2013	
1118 (Classic Caramel)	W626	10/12/2012	
924 (San Mateo Bea	W309	06/27/2012	
AF-10 (Gardenia)	524	06/27/2012	
HC-72 (Branchport B	W096	06/27/2012	
1/Inin Dahart		1731 222 4003	
Quick Color Search			
Search Colors within a C	ompany		
Search Customer Files			
Color Matching			
Competitive brands are reference	d for color o	comparison only.	

By clicking on one of the displayed samples, it will expand to show the color that was mixed, (figure 3-12.)

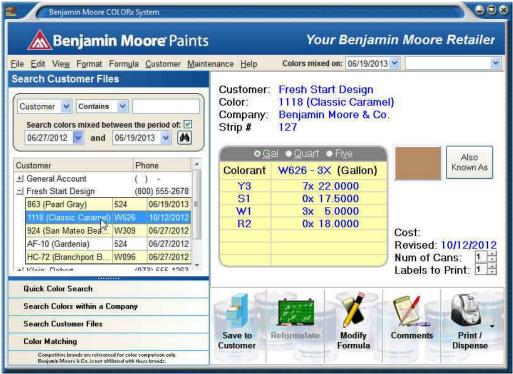


Figure 3-12

# Grouping Colors by Job or Date

Once a customer is found you can group the colors assigned to them by job or date by right clicking on the customer name. Other options are available to you when you right click on the customer include, list colors by date, list colors by name, add a new customer, display customer details, and delete a customer (figure 3-13.)

Customer V Con	tains 🕑
	ed between the period of:
Customer	Phone
General Account	() -
Fresh Start Design	(800) 555-267
+ Colors mixed or	n : 06/19/2013
+ Colors mixed of	n · 06/27/2012
Klein, Robert	Select Color
Painter's Expres	<u>A</u> dd New Customer <u>C</u> ustomer Details <u>D</u> elete Customer
Quick Color Sear	D <u>e</u> lete Color
Search Colors wi Search Customer	List Colors by Date List Colors by Name
Search Lustomer	Group Colors by Job
Color Matching	<ul> <li>Group Colors by Date</li> </ul>
Competitive brands Benjamin Moore & C	Show •

# Section 4 Maintenance

# **Drop Down Menus**

Near the top of the screen you will notice <u>File</u>; <u>Edit</u>; <u>View</u>; <u>Format</u>; <u>Formula Options</u>; <u>Maintenance</u>; <u>Help</u>. By moving the mouse pointer to these options, you can perform maintenance functions on the system.

Eile	<u>E</u> dit	Vie <u>w</u>	Format	Form <u>u</u> la	Maintenance	Help
				Figure	e 4-1	

The **<u>File</u>** dropdown shown below in figure 4-2 allows several functions.

Modify Store Inform	mation
Modify Store Optio	ons by
<u>B</u> ackup Customer I	Files
Print Setup	
Label Options	
<u>Print</u>	Ctrl+P
Dispense	
Print / Dispense	
<u>A</u> dd to Dispense Q	ueue
<u>E</u> xport	
Exit	
	Modify Store Option Backup Customer Print Setup Label Options Print Dispense Print / Dispense Add to Dispense Q Export

Figure 4-2

**Modify Store Information** 

	nographics			All costs in pennies per quart.				
Name:	Your Benjamin N	Aoore Retailer		Mark any OUT of Stock colorant				
Phone 1:	() -	( ) - Phone 2: ( ) -				Select System:		
Fax:	() -	-		Water	borne		Y.	
	1.1.	1		ID	Cost	OUT	~	
Address:				Y3	0000	Г		
	Î			S1	0000			
122700	1			W1	0000			
City:	-			- Y2	0000			
State:	Zip:		Country:	S2	0000	6. C.		
Email:			1	M1	0000	P		
Eman:				B1	0000	South L		
Slogan:				01	0000	-		
				R2	0000	•••••		
				R3	0000	1000 C		
				G1	0000			
				R1	0000		~	
				Percer	nt Markup	); (	0.00	
				Displa	y Colora	nt Cos	t: 🔲	

Figure 4-3

Your store name, address, phone numbers and a slogan can be added by placing the cursor in the field that you wish to modify.

**Colorant Costs** can be modified in this window. Architectural colorants and Industrial colorants can both be modified here. Amounts can be modified by changing the price in the cost field for each colorant. The price is listed as pennies per quart.

**Out of Stock Colorants** can be set here by placing a check mark in the OUT check box next to the colorants that are out of stock. When a colorant **OUT** box is checked, the system will not calculate colors using that colorant.

# Note: Remember to uncheck the colorant OUT box when the colorant is back in stock.

Percent Markup This allows you to change the percentage of markup on all colorants.

#### **Display Colorant Cost**

Checking or un-checking this box, determines if the cost of the formula is displayed on the screen.

When you are finished adding or changing the information, click on the **OK** button.

#### **Modify Store Options**

#### Formula

This feature allows you to change the shot resolution to either 1/2, 1/4, 1/8, or 1/16 resolution of an automatic dispenser depending on the type.

ormula Active			
Architectural:	1/4 Shot Resolution (Default)	~	
Industrial:	1/2 Shot Resolution (Default)	~	
Waterborne:	1/16 Shot Resolution (Default)	~	
-	1/4 Shot Resolution 1/8 Shot Resolution		
	1/16 Shot Resolution (Default)		-

Figure 4-4

Other options found in the File dropdown box are **Print**, **Dispense** and **Print/Dispense**. These options allow you to print and or dispense the displayed formula.

## **Active Products**

The option allows you to turn off or on products in the product dropdown screen on the main color matching screen. By deactivating selected products, they will not appear on the product dropdown screen.

4 N274 Eas C		c Flat Finish	
	pec® WB Interior Late:		
	pec® WB Interior Late:		
	Select Exterior Paint H		27212
		ligh Build Low Lustre Fi t Exterior Paint Soft Glo	
		ligh Build Soft Gloss Fi	
	Spec® EXT Flat Finish	iigii Duliu Solt Gioss i ii	11511
	Spec® EXT Satin Finish	16	
	Spec® EXT Gloss Finis		
	capes Latex Flat Finis		
	capes Latex Eggshell		
N533 - Colors	capes Latex Semi-Glo	ss Finish	
🗹 N534 - Ultra 🗄	Spec ® 500 Interior Lat	ex Primer	
	Spec ® 500 Interior Flat		
	Spec ® 500 Interior Lov		
	Spec® 500 Interior Egg		
🗹 N539 - Ultra	Spec ® 500 Interior Ser	ni Gloss	

Figure 4-5

#### **Backup Customer Files**

This feature allows you to copy the color transaction file to a folder of your choice for backup.

#### **Print Setup**

To select the type of printer you have connected to your PC, click on **Print Setup**. The default printer is displayed. If you wish to change the printer, click on the down arrow next to the **Name** box and a list of installed printers will appear. Select the printer you will use and click on **OK**.

#### Label Options

Prescriptions in the Formula Book and Color Matching System can be printed on labels or paper. If you wish to modify the size of the margins, the page layout, font type or font size, click on Label Options. You can now change these settings to customize your labels. If you wish to change back to the default settings, simply click on the **Restore** button. You can also set items to print on the labels or paper such as **Company Name**, **Address**, or **Phone** 

**Slogan**, **Prescription**, **Comments, and Prescription Cost**. Turn these on or off by clicking in the box next to the item you wish to print. When a check mark is displayed, that item will print. When you are printing on small labels, you may only want to print the company name and prescription because of the limited space.

To change or add information for these items, go to **Modify Store Information**.

#### Dispense

This option allows you to dispense to an automatic colorant dispenser.

#### **Print / Dispense**

This will print a label and dispense.

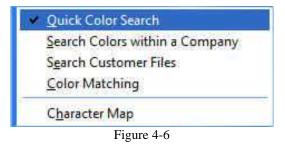
## Add to Dispenser Queue

This option will send the formula to the dispenser and hold it in a queue to be dispensed later.

#### Export

This allows you to copy the Benjamin Moore prescriptions to a file.

The View dropdown box allows you to access the same functions that are on the main screen.



The **Format** dropdown box shown below in figure 4-7 gives you the option to change the outer skin of the program to four different types. The Configure Formula Display lets you change the colors of the text on the screen.

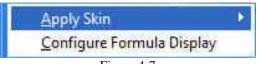


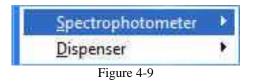
Figure 4-7

The **Formula** dropdown box allows you to access the same functions that are on the main color matching screen and on the displayed formula screen.

Add Mani	ual Formula
<u>M</u> anual Di	ispense Colorants
Convert C	P Formulas to Gennex
Modify Fo	ormula
<u>R</u> eformula	ate
Also Knov	vn Ås
Clo <u>s</u> est BN	M Color
View Cala	r Foundation
Sav <u>e</u> to Cu	ustomer
Comme <u>n</u> t	ts
Delete For	mula

Figure 4-8

The **Maintenance** dropdown allows you to access spectrophotometer and dispenser functions.



# Spectrophotometer Setup

Under Spectrophotometer you can calibrate the unit (figure 4-10), configure the type of unit you have (figure 4-11) and edit the tile data on earlier units.

<u>C</u> alibrate	Edit Parameters
Configure	Spectrophotometer Parameters Installed: 🗹
Edit <u>T</u> ile Data	Connection Port COM1 Driver: MatchRite Mue
Setup for Remote Measurements	Use Trigger: Inactive
Retrieve Remote Measurements	OK X Cancel
Figure 4-10	Figure 4-11

# **Automatic Dispenser Setup**

The **Maintenance** dropdown allows you to access the dispenser function and set the type of dispenser you have.

Click on <u>D</u>ispenser, then Configure to set the type of automatic dispenser unit you have as shown below.

Dispenser         Enter Color Number or Name:         Select Product Code:         Select Company:         Select Company:         Search All         Benjamin Moore & Co.         Search Options:         Color Name starts with         Search         Revised:         Num of Cans:         Itabels to Print:         Quick Color Search         Search Colors within a Company	🗥 Benjamin Moo	re Paints	Your Sto	re Name Goes He
Dispenser         Enter Color Number or Name:         Select Product Code:         Select Company:         Search Options:         Color Name starts with         Search Options:         Color Name starts with         Revised:         Num of Cans:         Labels to Print:         1         Quick Color Search         Search Colors within a Company         Search Colors within a Company         Search Colors within a Company	<u>E</u> dit Vie <u>w</u> F <u>o</u> rmat Formula <u>M</u>	aintenance Help	Colors mixed on: 07/15/2	2013 💌
Quick Color Search       Search Colors within a Company       Search Customer Files	Select Product Code: Select Company: Searc Benjamin Moore & Co. Search Options: Color Name starts with	Dispenser Colo Com	Commands Show Dispense Queue Configure ◆ Gal ● Quart ● Five	Revised:
Search Customer Files				Labels to Print: 1
				Ver Co

Figure 4-12

Select the colorant system by clicking the arrow next to the Select Colorant System box and choosing Architectural or Waterborne as shown in figure 4-13.

Configure Dispens	ser 8
Dispenser Setup Select Colorant System Architectural Waterborne	Select Driver: Not Installed Select Configuration
Show Dispen	iser Options <u>R</u> estore ✓ OK X Cancel

Figure 4-13

Select the dispenser you have by clicking the arrow next to the Select Driver box and choosing the dispenser in the dropdown list as shown in figure 4-14. When selected, click on the OK button.

Configure Dispen	ser	×
Dispenser Setup Select Colorant System	Select Driver:	
Architectural 🗸 🗸	Fluid Management DVX	Select Configuration
Show Disper	Not Installed CEI Corob (FLink) <sup>18</sup> Corob (FLink Remote) Fluid Management DVX	V OK X Cancel
	Figure 4-14	

# **Configuring the Print / Dispense Button**

You can reconfigure the **Print** button by following the next steps.

To change the button action, click on the **Edit** dropdown on the main COLOR<sub>x</sub> screen. Next, click on **Set Default Button Action**. You can now change the Print button to either **Print** only, **Dispense** only, or **Print/Dispense**.

e Edit View Format	Formula Maintenand	e Help	Colors mixed on:	07/15/2013 👻	618 (Robin's Nest)	
ui * 2 Undo ※ Cut Pa Copy @ Paste Delete	Ctrl+Z Ctrl+X Ctrl+C Ctrl+C Ctrl+V	Color: Company	General Acco 618 (Robin's Benjamin Mo	Nest)	1	
Select <u>All</u> Set Default Button		nt o G	ial ● <u>Q</u> uart ● Fig 549 - 1X (G	100 00		
Benjamin Moore & 0	Co	pense	0x 6.00	5107893807058C		
Search Options:		nt / Dispense d to Dispense Queue	0x 4.50			
Color Name starts v	257	ow Dispense Queue	0x 0.50 0x 21.50			
	arch			R	ost: evised: 4/10/20 um of Cans: abels to Print:	1
Quick Color Search		C	2.0		21 (5)	
Search Colors within a (	Company		A start	1 2		1

Figure 4-15

When you click on the desired function, the **Print** button will change to reflect your choice. In this example we chose **Print/Dispense** as shown below in figure 4-16.





When you click on the **Print/Dispense** button, the displayed formula will be sent to the automatic dispenser and the formula will be printed to the label printer.

# Accessing the Benjamin Moore Web Page through COLOR<sub>x</sub>

The **<u>H</u>elp** dropdown box has several options available (figure 4-17.)

	COLORx Help
-	COLORx Quick Start
	COLORx Release Notes
	COLOR <u>x</u> FAQ
	Benjamin Moore <u>H</u> ome Page
	Benjamin Moore <u>R</u> etailers Page
	Technical Support
	<u>A</u> bout



If you have internet access on your computer, you can click on the **Benjamin Moore <u>Home</u> Page** to visit the Benjamin Moore website or click on the **Benjamin Moore <u>Retailers</u> Page** to visit that area of the website. Also, you can click on the **Online Color Prescription Inquiry** to access the latest prescription changes to Benjamin Moore formulas.

## <u>T</u>echnical Support

This displays the Benjamin Moore Computer Color Matching Support phone number.

# **Version Number and System Information**

# <u>A</u>bout

This displays the version number of the COLOR<sub>x</sub> software.



Figure 4-18

## System Info button

This displays information about your computer, (figure 4-19.)

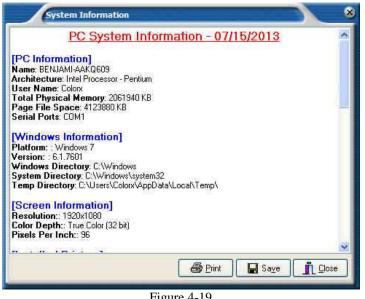


Figure 4-19

## Changing the Shot Resolution in the COLOR<sub>x</sub> Software

Certain dispensers can dispense down to 1/16 of a shot. COLOR<sub>x</sub>, has the ability to change the shot resolution to dispense on an automatic colorant dispenser.

To change the shot resolution, be sure you have the proper automatic dispenser configured in COLOR<sub>x</sub>. (See page 52.)

From the main screen, click on **<u>File</u>** then **Modify Store <u>O</u>ptions** as shown in figure 4-20.

Benjamin Moore COLORx	System			O D X
🛕 Benjamin Mo	<b>oore</b> Paint	s	Your Store	e Name Goes Here
Eile Edit View Format Formula	<u>Maintenance</u>	lelp C	olors mixed on: 07/15/20	13 💌
Modify Store Information Modify Store Options Backup Customer Files Print Setup Label Options	ne:	Customer: Color: Company:		
Print Ctrl+P Dispense	earch All	o <u>G</u> al ● Colorant	) <u>Q</u> uart ● Fi <u>v</u> e (Gallon)	
Print / Dispense Add to Dispense Queue	V V		•	
Export				-
Egit	×			Cost: Revised: Num of Cans: 1 = Labels to Print: 1 =
Quick Color Search				
Search Colors within a Company				
Search Customer Files		Save to Refo	rmulate Modify	Comments Print /
Color Matching Competitive brands are referenced for color Benjamin Moore & Co. is not affiliated with t		Customer	Formula	Dispense

Figure 4-20

The next screen appears and allows you to modify the shot resolution in the type of products you are using. Use the dropdown on Architectural, Industrial, or Waterborne products to change the shot resolution. When you are finished, click on OK. (Figure 4-21)

Architectural:	1/4 Shot Resolution (Default) 1/2 Shot Resolution (Default)	~	
Waterborne:	1/16 Shot Resolution (Default)	v	
	1/4 Shot Resolution 1/8 Shot Resolution	( Journey)	•
	1/16 Shot Resolution (Default)	- <del> </del> }	

Figure 4-21

Now when you display a formula on the screen, the shot resolution reflects in the amount of each colorant displayed as shown in figure 4-22. When you click on the **Dispense** button, the amounts displayed are the amounts that will be dispensed.

Customer: Color:		State of the second state of the	
Company:	Benjami	n Moore & C	0.
• Ga	al <b>o</b> Quart	• Five	
Colorant		× (Quart)	
Y2	0x	and a strength of the second	
01	0x	6.3750	
R3	0x	5.3750	
			0
			Cost: 0.00 Revised: 10/25/
			Num of Cans:
			Mulli Of Calls.

Figure 4-22

The display also changes when you modify a formula, enter a formula manually, and dispense colorant manually as shown in the next examples.

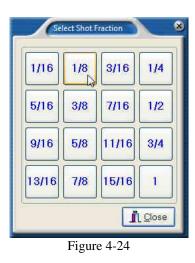
## Modifying a Formula

To modify a formula, click on the shot field you wish to modify then click on the button in that field to display the shot level you wish to add. In this example, S1 (Figure 4-23)

Color Number:						Color: Gro	een	
Color Name:*	Green					♦Ga	I ●Quart ●Five	
Product / Base:	522		v 1	2X	~	Colorant	522 - 2X (Gallon)	
*Acolor	number	or color	r name i	s required.		S1	0x 12.0000	
Enter Formula C	orrectic					Y2	1x 21.0000	Origina Target
Adjust Origin		-			v	G1	5x 1.0000	Jurger
Colorant	1	Sub	(	Gallon)	^			
S1 - Black			X					-
Y2 - Organic Y	'ellow		x		W			-
G1 - Thalo Gro	een		x					)
						□ Sho	w Original Formula	
						Becor	nmendations:	
						10001		
					~			

Figure 4-23

Select the shot fraction that you wish to add. In this example we selected the 1/8 button as shown below in figure 4-24.



The 1/8 shot is added to the screen as shown below. (Figure 4-25)

Colorant	Sub		((	Gallon)	1	~
S1 - Black		0	x	0.1250		
Y2 - Organic Yellow			x			
G1 - Thalo Green			x			
						~

Figure 4-25

Click on the **Save** button and the 1/8 shot will be added to the formula as shown in figure 4-26.

10.050.000 second a	General Account	
	Green	
Company.	Custom Color Match	
	Original Formula Cus	tomized
• <u>G</u>	al ● <u>Q</u> uart ●Fi <u>v</u> e	Closest
Colorant	522 - 2X (Gallon)	BM Color
S1	0x 12.1250	
Y2	1x 21.0000	
G1	5x 1.0000	
		Cost:
		Revised: 07/29/20
		Num of Cans: 1
		Labels to Print: 1

Figure 4-26

# **Create a Formula Manually**

E

To create a formula manually, go to the Manual Color Formula screen (page 39.) Enter the color name, the product, the base level, and the colorants along with the amounts as shown in figure 4-27.

Color Num	ber:*							
Color Nam	▼ / 2X ▼							
Product / E								
*,	Acolorn	umber or (	color nam	olor name is required.				
Enter Form	ula							
Colorant	1		1	(0	Gallon)		^	
W1 - Whi	ite		3	x	10.00	00		
Y2 - Orga	4	x	10.00	00				
01 - Ora	0	x	0.1250	••••				
	1 Ce	elect Shot F	Fraction	5	8			
[							-	
	1/16	1/8	3/16		1/4			
					=			
	5/16	3/8	7/16		1/2		-	
				11		1000	200	
Disp		-	_	ir		Can	cei	

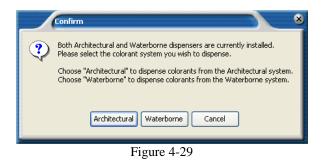
Now click on the **Save** button to save and display the formula. (Figure 4-28)

Color:	General Account Yellow Formula Created by	User
• <u>G</u>	al ● <u>Q</u> uart ● Fi <u>v</u> e	Closest
Colorant	524 - 2X (Gallon)	BM Color
W1	3x 10.0000	
Y2	4x 10.0000	
01	0x 0.1250	
		Cost
		Revised: 07/29/201
		Num of Cans: 1
		Labels to Print: 1

Figure 4-28

## **Manually Dispense Colorants**

To manually dispense colorants, go to the Manual Dispense Formula screen (page 41.) If you have your system configured as both architectural and waterborne, the following message will appear.



In our example, we'll click on the **Waterborne** button.

Colorant	Gallon	/
Y3 - Oxide Yellow	×	
S1 - Black	×	
W1 - White	×	-
Y2 - Select Can	Size	۲
S2 - Please select you	ır can size	
M1 -		٦ <b>-</b>
B1 - O Gallon O Q	uart O 5-Gallon	
01 -	DK 🛛 🗶 Cancel	
R2 -		
R3 - Oxide Red	×	
G1 - Thalo Green	×	
R1 - Red Toner	×	

Figure 4-30

Choose the can size then click OK. Now enter the amounts of colorant you wish to dispense. In our example, we've selected 20 shots of Y3 and using the Select Shot Fraction button we selected 1/8 shot of S1 as shown in figure 4-31. Now click on the **Dispense** button to dispense formula.

Colorant			Gallon			
Y3 - Oxide Y	ellow		0 x	20.000	0	
S1 - Black			0 x 0.	250		
W1 - White	Set	ect Shot I	Fraction		۲	
Y2 - Organ	_		1000000000			
S2 - Gray	1/16	110				
M1 - Mage	1/16	1/8	3/16	1/4		
B1 - Thalo		-hž				
01 - Orang	5/16	3/8	7/16	1/2		
R2 - Organ		_		H		
R3 - Oxide	9/16	5/8	11/16	3/4		
G1 - Thalo						
R1 - Red T	13/16	7/8	15/16	1		
Y1 - Organ						

Figure 4-31

## Networking the COLOR<sub>x</sub> System®

The COLOR<sub>x</sub> System<sup>®</sup> has been designed to take advantage of a computer network. The COLOR<sub>x</sub> Software can be loaded on a server and act as a shared resource for the PC's that drive automatic colorant dispensers, label printers, and spectrophotometers on the network. Each PC will share a common transactional database (where the retailer's customer prescriptions are stored.) When you create a custom color match with the spectrophotometer, you can go to the PC running your automatic colorant dispenser and that color will be available in the transactional database ready to be sent to the dispenser. Actually, all of your customer records and custom color matching will be located in one database on your server, where it can be stored securely and easily backed up. When you need to update the COLOR<sub>x</sub> software, you only have to install the COLOR<sub>x</sub> Update on your server, and all your PC's will be updated at the same time. If you have a broadband internet connection, you can download and install an update in minutes to all of your PC's using COLOR<sub>x</sub>.

## **Network System Requirements and Procedures**

If there is a pre-existing network that you plan to use, you should follow the recommendations of your IT people who run your network. If you are planning to put in a new network to connect  $COLOR_x$  to your colorant dispensers, you should purchase new computers that can run Windows XP Professional® operating system or higher. Once you have your network up and running, you can contact your Benjamin Moore Color Technology Representative for information on how to set up your COLOR<sub>x</sub> System® to communicate with the colorant dispensers, label printers, and spectrophotometers. One caveat, Benjamin Moore will not install or make changes to your network. We also require that on the day our Rep installs  $COLOR_x$  on your network, someone from IT be present to assist our Rep and understand what is being put on your network.

# List of Available Competitive Companies and Fandecks

The following competitive companies are included in the  $COLOR_x$  Formula Book. The Competitive Formula Book gives <u>approximate</u> prescriptions for these competitor's colors. These prescriptions are <u>calculated</u> matches.

#### North American Companies

#### **ABC Seamless**

• PVC Colors

#### 17 colors

#### Ace

- Illuminations
- Royal Shield Exterior Colors
- Colors for your Life
- *Clark* + *Kensington*
- 3071 colors

#### **AFM Safe Coat**

• SafeCoat 108 colors

#### Alcan (Canadian)

- Alurite Trim & Siding
- Aluminum Siding Color Guide
- Building Products

36 colors

#### Alcoa

• Alcoa Siding Colors 47 colors

**4**7 COI015

#### Ameritone Devoe

• The Color Key Program **2266 colors** 

#### **Andersen Windows and Doors**

• Window Colors 4 colors

#### Beckers

• Natural Color System (NCS) 1749 colors

#### Behr (Home Depot)

- Paints & Stains Interior / Exterior
- Various Color Sets
- Premium Plus Traditional Home
- Premium Plus Country Home
- Premium Plus The Whites Collection
- Premium Plus Better Homes & Garden

- Premium Plus The Interior Collection
- Premium Plus The Exterior Collection
- Premium Plus Int./Ext. Collection
- Premium Plus The One Coat
- Premium Plus Int./Ext. Paints & Stains
- Premium Plus Ultra
- 2002 Color Card Collection
- Basement & Masonry Waterproofer
- Kids' Color Collection
- Midtone & Deep Collection
- Premium Plus Interior Collection
- White & Neutral Collection
- Whites & Light Collection
- Spanish Color Card
- Color & Design Trends
- Color & Design Trends
- Trends 2012 & 2013
- Marquee Color Collection
- Concrete & Wood Floor Coatings
- Deckover
- Exterior Wood Stains & Finishes
- Home Decorator's Collection
- Masonry, Stucco, and Brick Paints
- Porch & Floor Collection
- 6234 colors

#### **Bob Timberlake**

- Summer Harvest Collection **216 colors**
- - - -

#### **Bruning Paints**

• Contractor Color Collection 639 colors

#### C2 (The Coatings Alliance)

• Collections of Color 588 colors

#### Cabot

• Cabot stains

#### **California Paints**

- Historic Colors of America
- Colors in White
- Millenium
- 1670 colors

Canada Hardware

Beauti-Tone

1176 colors

Canadian Tire

Canadian Tire Colors

1223 colors

Certain TweedMonogram Siding36 colors

Clairtone

• Professional Paints 653 colors

#### Canexel (Canadian)

• Wood Fibre Siding **20 colors** 

#### **Color Guild**

• *Millenium* 1488 colors

#### **Color World**

• Color Life 1601 colors

#### **Color Your World**

Color Selector
Color Pallet
2220 colors

#### **Columbia Paint**

• Color IS 1320 colors

**Con-Lux** 

• Color Dynamics 780 colors

#### Coronado

- Coronado Colors
- Color Impressions

2416 colors

Cloverdale

Int./Ext. Colors

1320 colors

Crayon Colors 213 colors

# Crown Diamond Distinction 1258 colors

Dal Worth Paints
Dal Worth Paints
850 colors

DenaltColor Collection56 colors

#### **Devine Colors**

• Colors of Inspiration 123 colors

#### **Devoe/Fuller O'Brien**

• Color Key Program 1406 colors

#### **Diamond Vogel**

• Studio Collection 640 colors

#### Disney

• Disney Colors 160 colors

# Do it Best

• Do it Best Colors 1056 colors

#### **Donald Kaufman**

The Donald Kaufman Color Collection **100 colors** 

#### **Dunn Edwards**

- GALAX-Z
- Architecture Hues
- Perfect Palette

#### Duron

- Color Collection
- Historic Colors of Charleston
- Historic Colors of America
- Mount Vernon Estate of Colors 1531 colors

#### **Dutch Boy**

- Custom Colors With Accents
- Dutch Boy Colors
- Dimensions
- Better Homes & Gardens
- Simple Innovations

4172 colors

#### Farrow & Ball (Canadian)

- Choice of Colour
- Farrow & Ball Colours

256 colors

#### **Fine Paints of Europe**

• Fine Paints of Europe Colors 1959 colors

#### Frazee

• Creative colors

1141 colors

#### **FreshAire Choice Paint**

• Colors 66 colors

## Finnaren & Haley

- Millennium
- Interior colors
- Whisper Whites
- *Historic colors of America*
- Authentic Colors of Historic Philadelphia 1742 colors

#### Floodpro

• Solid Color Deck & Siding Finish **96 colors** 

#### **Fuller O'Brien**

• Fulcolor Fashion Structured Colors 1008 colors

#### **General Paint**

- Custom Color
- ColorLife
- 2472 colors

## **Georgia Pacific**

- Vision Pro Siding Colors
- 12 Colors

#### Glidden

- Professional Colors
- General Formulas
- Classic & Neutrals
- Brilliance
- Color Futures
- Porch & Floor
- Endurance
- Glidden Colors
- Better Homes & Gardens
- Evermore Kids' Colors
- Disney by Glidden

#### 3507 colors

#### Home Hardware (Canadian)

- Designer Series
- Beauti-Tone Colors
- 1376 colors

#### Hüls America

- Colortrend Ambiance, Cue, & Nuance
- Industrial Color System

2928 colors

Hunter (Canadian) Hunter Building Products 16 colors

#### ICI

- Master Palette
- Color Palette (Color Your World)
- Master Palette Global Color System 3691 colors

#### Insl-X

- Hot Trax
- Ready Mix
- 25 colors

#### Janovic

- Janovic Custom Colors 940 colors
- **740 COI015**

#### James Hardie

- Siding Products
- Color Plus Collection

#### Jones Blair

• Gilman Paint 880 colors

#### Kaycan

• Kaycan Architectural Colors 18 colors

#### Kelly Moore

- Color Ensemble
- Color Xperience 2004
- Color Studio Collection 2013 3884 colors

#### Kilz (Walmart)

- Kilz Casual Colors
- *Pro-X Color Collection 300 Series* **1047 colors**

#### Kolb & Kolb

• Heritage Series Standard Aluminum Colors 5 colors

#### Laura Ashley (See Lowes)

#### Laurentide (Canadian)

- Systeme de Couleurs
- Simple Color Selection & Harmonization

2252 colors

#### Lowes

- Alexander Julian At Home Colours
- Laura Ashley Home Colour Collection
- Nickelodeon American Tradition Signature Colors
- Eddie Bauer Home

#### 1028 colors

#### Lutron

• Architectural Colors 10 colors

#### M.A.B

- Color Symphony
- Italy
- Color Quest

#### 2909 colors

#### Martha Stewart

- Everyday Colors
- Signature Series
- Martha Stewart Living
- Valspar Signature Martha Stewart colors 1291 colors

#### **Martin Senour**

- Decorator's Palette
- Super Tough Coat

1534 colors

#### Marvin Windows & Doors

• Window & Door Colors **20 colors** 

#### **McCormick Paints**

- Off whites
- McCormick Fandeck

#### 880 Colors

#### MF Peintures (Canadian)

- Deco Nova
- Pure

1519 colors

#### **Mid America Building Products**

- Master Sutter Colors
- 22 colors

#### Mitten Building Products (Canadian)

- Colors of Mitten
- 34 colors

#### **Mobile Paints**

- Exterior Finishes
- Color Studio Classic
- Cool Colors
- Warm Colors
- Floor & Deck Finishes
- Industrial Quick Dry Enamel
- Int./Ext. High Gloss Finishes
- Rust-Kil
- 1287 colors

#### Muralo

- Designer Palette
- Color Fashions

#### 2449 colors

#### NCS Natural Color System

Natural Color System
 **1984 colors**

#### Olympic

- Color For Interiors
- Premium Latex Stain Color Selector
- Olympic Paint Colors

1495 colors

#### Para Paints

- Design Line II
- Core Colors 2008
- Para Colors

5304 colors

#### Pella Windows & Doors

• Window Colors

13 colors

#### Pittsburgh

- Designa Color System
- Voice of Color
- Various Color Cards

# 3200 colors

#### **Porter Paints**

- The Designer 800
- Design Spectrum
- Color Selector

3195 colors

#### Pratt & Lambert

- Calibrated Colors IV
- Never Compromise Colors

2118 colors

#### **Premier Paint**

• Designers Choice of Color III 1344 colors

## **Ralph Lauren**

- Various Colors
- Collections
- Ralph Lauren Canyon Road Collection
- Ralph Lauren Greenhouse
- Ralph Lauren Island Brights
- Ralph Lauren Naturals
- Ralph Lauren New England Lighthouse
- Ralph Lauren Sea & Sky
- Ralph Lauren Southport Collection
- Ralph Lauren Whitewash
- Thoroughbred
- Village Masters
- Modern Light
- Urban Loft

• Whitewash 1784 colors

RAL • RAL Colors 186 colors

# **Restoration Hardware**

Various colors **36 colors** 

#### **Reynolds Siding**

Siding colors

11 colors

#### **Richard's**

- Portfolio Color Collection
- Color Is
- 1646 colors

#### Rodda Paint (Canadian)

• Colour Expressions 964 colors

#### **Rollex Siding**

• Siding colors 24 colors

## Rona

• Studio by Rona 800 colors

#### **Royal Crest**

• Royal Crest Colors 16 colors

#### Rustoleum

• Deck & Concrete Restore 60 colors

#### Sears

- Decorating System
- Easy Living

#### **Sherwin Williams**

- Interior/Exterior Color Answers
- 6000 7000 Series
- System 4000
- Concepts in Color
- Exterior Accents
- Interior Highlights
- Various Collections
- Whites & Lights
- Woodscapes Exterior Stain

# 4570 colors

## Sico (Canadian)

- Sico 4000
- Sico 6000
- Colorama 2000
- Confort
- Energie
- Exterirur
- Luxe
- Serenite

4681 colors

#### Sikkens

- Cetol Natural Balance Color Collection
- Rubbol Color Collection

113 colors

## **True Value**

- Tru-Test Quality Paints
- Color Collection
- Color Trends
- Kitchen & Bath
- Discover America
- E-ZKare Interior
- WeatherAll Exterior
- Color Made Simple

3252 colors

## **US Government**

• Federal Standard Colors 595B 583 colors

## **Ultimate Paints**

• Color by Design **1318 colors** 

#### Valspar

- Color Spectrum
- American Tradition Colors
- Allen & Roth

- Color Ideas
- Creative Ideas
- Universe
- American Tradition Earth Elements
- Seaside Retreat
- Medallion
- Whites & Neutrals
- 5092 colors

#### Vista Paint

- Kaleidoscope
- Paint Color Selector

2284 colors

#### Vtec Siding

• Siding Colors 44 colors

#### Walmart

• Color Place 1022 colors

#### Waverly

• Waverly Home Classics 462 colors

## **Wolverine Siding**

• Wolverine Siding Colors **16 colors** 

## **Pacific Limited Companies**

#### **Australian Standards**

• Australian Standards 145 colors

#### Burger

- Exterior/Interior
- 221 colors

## **British Paints**

- Color Planner
- Steelite Roof Paint Systems

1082

#### Dulux

- Colour Range
- Color Collections
- Colour Range
- Master Palette
- Spruce Roof Color Guide
- Colour Solutions System

#### 2836 colors

#### Epiglass

- March-On Floor Finish
- Colour Range
- Interior Colour Selector
- Glide Roof Paint
- Premium Colours

722 colors

#### Japan

- Colors From Japan
- Japan Standard colors 2001 659 colors

## **Korea Chemical**

• Colorbank 967 colors

## **Major Decorating**

- Colour Selector
- Colour Chart

# 164 colors

#### Resene

• Total Colour System **516 colors** 

#### Samson

- Creative Colour
- Style Interior Vinyl Chart
- Roof & Paving Paint

#### 357 colors

#### **Solver Paints**

• Interior - Exterior Nature Colours 281 colors

#### Taubmans

- Taubman's Premium Colours
- Colour Concept System

#### 960 colors

## Walpamur

• Interior/Exterior Roof Paint 127 colors

## Wattyl

- Solargard
- Various Sets
- 967 colors

## White Knight Paint

• *Interior/Exterior* 135 colors

# **European Companies**

#### Scheuder-Holland

• Hascolac Classic European Colors 40 Colors

## Tikkurila

- Symphony
- Facade
- 2667 Colors