What's New in DMP V4.0

Addendum to Match Pigment User Guide



Datacolor MATCH PIGMENT v. 4x is only compatible with Datacolor TOOLS v. 3.2 or higher. This addendum to the Datacolor Match Pigment User Guide will describe all new features added since the release of Datacolor Match Pigment Version 2.0. Basic functionality is not explained in this guide, basic functionality is explained in the Match Pigment User Guide which is installed automatically in the Match Pigment application folder. It can also be downloaded from the support site

You will also find Tutorial Video's and FAQ's on our support website at:

http://www.datacolor.com/business-solutions/support/product-support/

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Datacolor MATCH PIGMENT V4.0 Overview

Datacolor MATCH Pigment v 4.0 includes speed improvements, new functionality to several program modules and changes to the user interface to achieve uniformity among the program options. Changes have been made to the following program options:

The new interface is consistent across all of these maintenance modules. The improvements include the display of all records in a single window, and the uses of the same controls and indicators in every maintenance module.

This document provides information about features enabled in v 4.0 as well as features enabled in releases v 3.x that have not yet been documented. The features discussed include:

- <u>Maintenance Grid Redesign</u>. The Maintenance Window layout has been updated and is consistent across program modules.
- **Queue Maintenance**. The maintenance window has been updated and a multi-scheduling option has been added to queue types.
- Queue Viewer. A Notes option has been added to the formula record. Also included in this section is a detailed review of the interface changes that were made to Queue Viewer introduced in Datacolor MATCH PIGMENT v. 3.4. Ingredient Maintenance. The maintenance window has been updated for both Ingredient Maintenance and Ingredient Compatibility Manager.
- <u>Schedule Maintenance</u>. The maintenance window has been updated.
- **Product Line Maintenance**. The maintenance window has been updated for both Product Line *Maintenance and Ingredient Compatibility Manager.*
- Navigator Update. Enhancements made to Navigator since v 3.x will be included in this document.
- <u>Gamut Mapping</u>. A gamut mapping tool has been added to both Formula Central and Set Maintenance to aid the user with colorant selection.
- <u>Offset Matching</u>. Explains the concept and operation of this feature.
- Recalculate RGB's.
- Speed improvements have been made for standalone, LAN and terminal server configurations.

New Maintenance Grid Design

Queue Maintenance, Ingredient Maintenance, Ingredient Compatibility Manager, Schedule Maintenance and Product Line Maintenance now use a standard grid layout, and standard controls. This new design makes it possible to view all of the records and to locate individual records in the database from a single window.

This section will explain the controls common to the grids using this new design. However, each grid contains some unique information, which may require explanation of fields and controls specific to the grid. See <u>Queue Maintenance</u>, <u>Queue Viewer</u>, <u>Ingredient Maintenance</u>, <u>Schedule Maintenance</u>, and <u>Product Line Maintenance</u> sections of this document for information unique to those grids.

When you edit information in any of the grids, be sure to click the Save button before leaving the window. In some cases, the program will prompt you to save the changes before exiting. However, there are some options that do not confirm the delete before executing the option.

Maintenance Window Details

The window includes 3 sets of controls: the Editing Bar, Display Items, and Grid tabs

				- D
About				Editing Bar. The Editing bar
Queues	Q +	/01		delete buttons. On the right side are
Name	Туре	Status	Location	buttons that execute program
opaque	JobTemplate	Ready	Queue Exar	functions.
RAL Step Matching	Schedule	Partial	Queue with	
RAL with step matching	Schedule	Ready	Queue with	Step Matching 1 198 0
Display Items All Search Filter Select Sub Queues Schedule	Job Template		- list	are in the middle of the window.
Display Items All Search Filter Selec Sub Queues Schedule	Job Template		list	are in the middle of the window.
Display Items All Search Filter Selec Sub Queues Schedule	Job Template	Status	Location	are in the middle of the window. Purge Queue(s) Match Que Jobs Samples Folders

Editing Bar

The editing icons described below are standard for all of the DMP grids



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lcon	Function
Q	Search for a record. <i>See Search Record below for additional information.</i>
+	Add record.
Ø	Edit selected record.
	Copy selected record.
	Delete selected record.
	IMPORTANT
	If the record is linked to another record (dependency), the program will display an error message and it will not execute the delete.
	When you choose this option, it will delete the record without displaying a confirmation dialog box.
\sim \sim	Reorder records in the grid. Highlight the record to be moved, and click one of these arrows to move up or down.

Display Items

These options are used to filter large record lists. When the function name turns red, the function is enabled.

Display Items All Search Filter Selected

All	Displays all records.
Search Filter	Displays records matching the text string input in the search field. When Search Filter is enabled, it starts searching as soon as the user enters characters into the field.
Selected	Displays the records satisfying the filter.

Record Details

The bottom of the grid provides additional details about the content of the records. Click on the tab for the type of data to be displayed.

Sub Queues Schedule Schedule	Job Template Q Location Default	This arrow hides the bottom half of the grid. When the grid is hidden, an "up "arrow on the bottom left of	· · · · · · · · · · · · · · · · · · ·
When multiple i displayed, enter cha filter to the record li	records are aracters to apply a ist.	the window restores this display.	

Sizing and Customizing Grids

In some grids, there are buttons on the right end of the editing bar to re-order and the re-size of the columns displayed in the grid.

	Q + 1 Density KG V / L V V
	Opens a dialog for customizing the grid layout for the program module you are
(set columns)	
\mathbb{Y}	This option <i>is only found</i> on the Ingredient Maintenance grid.
Filter	

Language Selection

You can also change the language selection directly from any of these maintenance windows. When you change the language using this option, you do **not** have to restart the system to implement the change. It is made automatically.

To change the language:

1. Click on the flag icon in the top right corner:

File About	
Queue Maintenance	
Queues Q + / C 💼	1atch Queue

Г

٦

All of the available languages display:

[v4.0.0.32]	0
Ŭ	Simplified Chinese
	Simplified Chinese
	Chinese
	Chinese
	Chinese
	Dutch
	/ English
C	Français
	Deutsch
	Italiano
	Japanese
	Sorean
	Polish
	ortuguês (Brazil)
	Português (Portugal)
	Russian
	Español
-	Thai

2. Select the language to be displayed.

Menu Options

Menus are available throughout the grids. Right click in a grid to display a menu:

Name	Doccrin	tion Tune	State
RAI 🖻	Deep Base 1		eue Ready
RAI	Open With	•	eue Ready
RAI	New Folder		eue Ready
	New Schedule		Deadu
	New Queue		eue Ready
RAI	Properties	Ctrl+P	eue Ready
RAI	Dependencies	Ctrl+D	eue Ready
RAI		0.1 M	Itch Output
S 2 4	Rename	Ctrl+N	eue Ready
	Delete	Delete	- teh Output
	Cut	Ctrl+X	iten Output
elec	Сору	Ctrl+C	
es 📋	Paste	Ctrl+V	mo Paint
		J dol	emo Paint

Menus are also displayed at the top of each maintenance window:

File Tolerances Notes View Actions Dispense About

Often the menus provide alternative methods for accessing a particular maintenance option, such as editing options. However, in some cases they provide the *only* access to reporting options, dispensing functions and other features.

See <u>Ingredient Maintenance</u>, <u>Queue Maintenance</u>, <u>Schedule Maintenance</u> and <u>Product line Maintenance</u> in this document for all details specific to those grids.

Queue Maintenance

The queue function automates the matching process and allows the user to queue samples for matching at a later time. The queues built using Queue Maintenance require the same input that you provide when you run a single match in Formula Central.

Queue Maintenance displays both *queues* and *schedules* that are stored in the system. It provides access to all of the details for each queue, including job templates, sub –queues, and schedules. *See also <u>Schedule Maintenance</u>* in this document for information on this advanced queuing function.

Queue Maintenance v 4.0

The interface for Queue Maintenance has been updated for consistency with other maintenance grids in Datacolor Match Pigment.

Functional changes to Queue Maintenance in DMP v 4.0 include:

- User can select individual target samples or a complete folder containing targets to be matched. *Prior to this release, the user could only select individual target records*
- User can modify the details of a queue after it is created. This includes editing standard selection, folder locations, queue type and queues to be used.
- Multi-Schedule feature. This feature has been added to the Queue Type options. Multiple schedules can be combined in a single queue. Using this option, the program will look across multiple product lines to find an acceptable formula to match the target.
- User can view and purge queue results directly from Queue Maintenance
- Queue matching can be launched from Queue Maintenance or directly from Navigator.

Queue Maintenance Grid Details

The layout and controls are consistent with the updated maintenance window design found in other DMP program modules. *See also <u>Grid Layout</u> for details regarding the common controls and indicators found on the grids in Datacolor MATCH PIGMENT.*

Below is a comparison of the old and new Queue Maintenance windows.

Old Window

Prior to this release, the queue maintenance window only displayed data for a single queue.



New Window

The new layout makes it possible to view all of the queue records and to locate and move between queue records in the database from a single window.

Oueues Image: Type Type The queue can be matched or purged from Oueue RAL Step Matching Schedule Schedule Partial Oueue Match Queue Oueue The queue can be matched or purged from Queue Match Queue Oueue Match Queue Purge Queue(s) Match Queue Purge Queue(s) Match Queue Purge Queue(s) Contemplate Oueues Schedule Job Template Oueues Schedule Job Template Outers Velocities Velocities </th <th></th> <th></th> <th></th> <th></th>				
Name Type Satus U poque JobTemplate Ready G All Step Matching Schedule Partial G Clipplay Items All Search Filter Selected Schedule Job Template Q Job Template Queues Schedule Job Template Queues Schedule Job Template Queues Schedule Job Template Queues Location Default	Queues	Q +		Purge Queue(s) Match Queu
Image: Dot Template Ready c The Queue Can be matched of purged from Queue Maintenance. RAL Step Matching Schedule Partial Queue Maintenance. RAL with step matching Schedule Ready C	ame	Туре	Status Lo	The guesse can be matched or purged from
RAL Step Matching Schedule Partial RAL with step matching Schedule Ready Display Items All Search Filter Selected Sub Queues Schedule Job Template Copaque match Default	opaque	JobTemplate	Ready C	The queue can be matched or purged from
RAL with step matching Schedule Ready C Display Items All Search Filter Selected 3 Items Sub Queues Schedule Job Template 3 Items Job Template Q opaque match Default	RAL Step Matching	Schedule	Partial C	Queue Maintenance.
Display Items All Search Filter Selected 3 Items Sub Queues Schedule Job Template C Job Template C C Job Template Name Location C opaque match Default	RAL with step matching	Schedule	Ready C	
Schedule Job Template Job Template rob Template Name opaque match	Display Items All Search Filter Selected			3 ite
Job Template C Job Template Name Location opaque match Default	Sub Queues Schedule	Job Template		3 ite
Job Template Name Loation opaque match Default	Job Template	Q		
opaque match Default	b Template Name	Location		
	paque match	Default		

You must access the Queue Details window to view/edit selections for an individual queue.

Queue Details Window

The *Queue Details* window is used to create new queues, copy queues or edit the details of existing queues.

1. To access *Queue Details*, double-click on a queue record in the list. The queue details window displays:

File Tolerances About		E
← Queue Details		
Oueue Status Ready	Queue Items	Selection Type
Selected Queue	Samples Q + m	Samples 7 Jobs 0 Clear All
opaque	Name State Location RAL4003-HR 01/98 REGULAR Ral	
Location	RAL4005-HR 01/98 REGULAR Rai	
Queue Examples Browse	RAL1003-HR 01/98 REGULAR Rai	
Results Location	RAL3024-HR 11/02 REGULAR Rai	
Queue Examples\Queue Results Browse	RAL5012-HR 01/98 REGULAR Rai	
View Results Purge Results	RAL1000-HR 01/98 REGULAR Rai	
	RAL6027-HR 01/98 REGULAR Rai	
Salacted lob Template		
opaque match Browse		
Save As Match Now	Display Items All Search Filter Selected	7 items
=		Undo All Save

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• Queue Status. When the queue status is *Ready*, the user can edit the selections in the left window pane. When a queue status is "partial", the editing functions for queue location, results location, queue type and schedule selections are disabled.



You can duplicate an existing queue to create a new queue. When you change any of the selections for the queue, the **Save As** button is enabled. Make the modifications to create a new queue, and then click the **Save As** button to store the new queue.

• **Queue Type.** Multi-schedule has been added as a queue type. When a user combines multiple schedules into a queue, a target can be matched across different product lines.



- Multi-Schedule requires a minimum of 2 schedules. When only 1 schedule is selected the user will see an error message.
- If no schedules are assigned, the user must add the schedules.

Queue Type	Multi-Schedule
+ 💼 🔸	Add or delete a schedule

The options in the right window pane are used to filter, select and display target samples stored in the queue.

Queu	ie Items			Selection Type
Samp	les		Q + 💼	Samples 7 Jobs 0 Clear All
	Name	State	Location	
	RAL4003-HR 01/98	REGULAR	Ral	
	RAL4005-HR 01/98	REGULAR	Ral	
	RAL1003-HR 01/98	REGULAR	Ral	Selection Type: User can select individual samples or a
	RAL3024-HR 11/02	REGULAR	Ral	folder that contains multiple targets. When the folder
	RAL5012-HR 01/98	REGULAR	Ral	ontion is selected the list will include standards samples
	RAL1000-HR 01/98	REGULAR	Ral	option is selected, the list will include standards, samples
	RAL6027-HR 01/98	REGULAR	Ral	and substrates in the folder.
	Save al	l chang	es.	
Display	Items All Search Filter	Selected		7 Items
				Undo All Save

Save vs. Save As Option. When you make a change to details in the queue, such as the folder locations, job templates used, samples to be matched, the **Save** button on the right is enabled. You can store the changes for the current queue (Save) or save all of the information under a new queue name (Save As).

← Queue Details						
Queue Status	Ready	Queue Items				Selection Type
Selected Queue		Samples		a + a		Samples 7 Jobs 0 Clear All
opaque		Name RAL4003-HR 01/98	State REGULAR	Location		
Location		RAL4005-HR 01/98	REGULAR	Ral	\mathbf{N}	
Queue Examples	Browse	RAL1003-HR 01/98	REGULAR	Ral	\mathbf{N}	
Results Location	/	RAL3024-HR 11/02	REGULAR	Ral		
Queue Examples\Queue Results	Browse	RAL5012-HR 01/98	REGULAR	Ral		
View Results Purge Results		RAL1000-HR 01/98	REGULAR	Ral		
		RAL6027-HR 01/98	REGULAR	Ral		
Queue Type Job Te	mplate 🗸					\mathbf{N}
Selected Job Template						\mathbf{X}
opaque match	Browse					
Save Ar	Match Now					
Jave As	Match How	Display Items All Search Filte	r Selected			7 Item
-						Undo All Save

Queue Tolerances

Queue tolerances are distinct from the tolerances defined in the job template you are using. The tolerances in the job template are used to determine if a formula is an acceptable match. The Queue Tolerances assigned in Queue Maintenance are used as the basis for filtering and sorting the queue results. They are the same tolerances displayed and used in Queue Viewer.

1. Click on **Tolerances** at the top of the window. The current tolerances are displayed:

File Tolerances About			
← Queue Details			
Queue Status		Tolerances	×
Selected Queue		Reset Save Defaults	
RAL Step Matching		Tolerances	
location		Compatibility	Compatibility And Priority
Queue without Step Matching		50.0	50.0
Quede without step watching		Measured DE	Primary DE
Results Location		1.0	1.0
Queue without Step Matching		Metamerism	CR
View Results Purge Results		10.0	99.0
		Cost	Priority
Queue Type	Schedule	1.00	50.0
Selected Schedule		-	
Auto Base Select			
-			Close Save
		1910	

See <u>Queue Viewer, Tolerances</u> for a detailed explanation of these tolerances.

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Queue Viewer 4.0

A Notes option has been added to the formula record. See <u>Notes</u> below for details on this feature.

The Queue Viewer interface underwent a significant change in DMP v 3.4. Also included in this section is a detailed review of the interface changes that have been made to Queue Viewer since the original release. Below is a summary of the features and controls on the current Queue Viewer Window, including the new Notes option.

Original Window

Below is the original queue viewer window:

	Viewer	Dispansa About									
Queue Bill Tes Job Te All Job	e Name st2 emplate Name Templates		AI	tandard View Criteria ormula View Criteria	~	datacolor MATCH Provint Sorted by Formula Central Sort Order	!				
RAL100	04-HR 03/02	v	View Ty O Sta O Sta	ype ndards Only ndards and Formulas		Formula Acceptance Consider All First Formulas Accept All First Formulas					
		RAL1000-HR 01/98	G05.	208.707		Job 581 RAL1000				Pastel Base FF	^
Oxide Yell	.ow	33.35	Y	Ready	Black	2.60	Y	Ready	Umber	32.74	ł Y
Weak Black	:	8.65	Y	Ready	Oxide Yellow	34.55	Y	Ready	Yellow	7.55	5 Y
Yellow (Re	d)	48.99	Y	Ready	Yellow (Red)	48.78	Y	Ready	Yellow (Red)	68.50	У Т
White		71.34	Y	Ready	White	76.41	Y	Ready	White	53.55	5 Y
Pastel Bas	e	900.00	ML	Ready	Pastel Base	900.00	ML	Ready	Pastel Base	900.00	м (
Total		1000.00	ML		Total	1000.00	ML		Total	1000.00	M (
Priority			Comp	atibility	Priority		Compa	tibility	Priority		с
50.00			50.0	0	50.00		50.00		50.00		5
DE(1)		DE { 2)	DE { 3	3)	DE(1)	DE (2)	DE (3)		DE(1)	DE (2)	г
0.00		0.31	1.14	ł	0.01	0.30	1.09		0.00	0.39	2
MI		CR	Cost	:	МІ	CR	Cost		MI	CR	с
1.15		100.00	1.43	3	1.16	100.00	1.43		1.58	100.00	1
No Selecti	on 🔽		Comb	oinatorial	No Selection	1 💌	Combi	natorial	No Selection	~	с

New Window



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Queue Viewer Details

The new window design retains all of the original fields and formula information, and is now easier to understand and navigate.

Sort, Select and Display Fields

The fields at the top of the window control the parameters to sort, select and display the queue results.

% Q	ueue Viewer			- 0
File	Tolerances Notes View Actions Dispense	About		
Ð	Queue Name RAL Step Matching	All ~	Sorted by Customize Tile Formula Central Sort Order * 190 x 295	
	Job Template Name	Formula View Criteria	Formula Acceptance Consider Visible First Formulas	
\$	Go To v	View Type Standards Only Standards and Formulas	Accept Visible First Formulas	

Below is a summary of all of the fields at the top of the window:

Queue Name	Change the queue that is displayed.
Job Template Name	Displays results for all targets matched using a particular job template.
Go To.	Displays all of the target names in the queue. Use this field to advances to a specific target color to view the results.
Standard View Criteria	Filters the formula results based on the characteristics of the standard. User can include/exclude formulas for particular standards, based on the properties of the standard.
Formula View Criteria	Filters the formula results based on the characteristics of the formula. Addition filter criteria have been added such as CR < Tolerance, CR> Tolerance.
Sorted By	The option allows the user to resort the formula results, before the formulas are filtered for either Standard or Formula requirements.
Formula Acceptance	The <i>First</i> formula for each target, displayed in the far left column, is always the best match found for the target <i>based on the job template used</i> . ck Consider Visible First Formulas to assign the status <i>Consider</i> to the first formula for every standard. A sort based on the status <i>Consider</i> will display a single formula for each standard. ck Accept Visible First Formulas to assign the status <i>Accept</i> to the first formula for every standard. This assignment allows you to resort the formulas based on this status. A sort based on the status <i>Consider</i> will display a single formula for each standard. <i>See <u>Manual Formula Status Assignment</u> for instructions to assign a status to individual targets or formulas</i> .
Customize Tile	This option resizes the display of individual formula details. Use the slide bars to adjust the dimensions of the formula display tile.

Formula Results

Below is an example of the queue viewer display:

Image: RAL Step Matching Job Template Name - All - Go To	All Formula Viev All View Type Standa Standa	v Criteria v rds Only rds and Formulas	Formula Acceptance Consider Visible First Accept Visible First	Formulas	e Tile x 295
RAL1000-HR 01/98 - Job BLACK 0.21 sh BLUE 1.26 sh OX YEL 76.40 sh P 1000.00 ML Potal 1047.97 ML Total 1047.97 ML Priority Compatibility 62.00 70.00 DE(1) DE(2) 0.04 0.75 0.04 0.75 MI CR 2.22 100.00 Consider Accepted Rejected Visually	279 RAL1000-HR 01/98 [Pa 1.38 Sh D 0.26 Sh 7.6.27 Sh 1000.00 ML 1047.99 ML y <u>Compatibility</u> 70.00 <u>DE(2) DE(3)</u> 0.83 2.08 <u>CR Cost</u> 100.00 1.49 onsider Accepted eiected Visually	Stel Base 3] BLACK 2.30 Sh OX YEL 41.23 Sh YELLOW 35.00 Sh P 1000.00 ML Total 1048.37 ML Priority Compatibility 62.00 70.00 DE(1) DE(2) DE(3) 0.03 0.90 0.96 MI CR Cost 1.30 100.00 1.48 Consider Accepted Rejected Visually <th>BLUE 1.37 sh OX YEL 76.90 sh VIOLET 0.31 sh P 1000.00 ML Total 1048.40 ML Priority Compatibility 62.00 50.00 DE(1) DE(2) DE(3) 0.00 0.78 2.07 MI CR Cost 2.21 100.00 1.49 Consider Accepted Visually</th> <th>BLUE 1.34 St OX YEL 76.92 Sh PURPLE 0.31 Sh P 1000.00 ML Total 1048.40 ML Priority Compatibility 62.00 50.00 DE(1) DE(2) DE(3) 0.01 0.79 2.10 MI CR Cost 2.24 100.00 1.49 Consider Accepted Visually</th> <th>BLUE 1.30 Sh OX YEL 75.81 Sh UMBER 2.11 Sh P 1000.00 ML Total 1048.80 ML Priority Compatibility 62.00 50.00 DE(1) DE(2) DE(3) 0.02 0.81 2.07 MI CR Cost 2.21 100.00 1.49 Consider Accepted Rejected Visually</th>	BLUE 1.37 sh OX YEL 76.90 sh VIOLET 0.31 sh P 1000.00 ML Total 1048.40 ML Priority Compatibility 62.00 50.00 DE(1) DE(2) DE(3) 0.00 0.78 2.07 MI CR Cost 2.21 100.00 1.49 Consider Accepted Visually	BLUE 1.34 St OX YEL 76.92 Sh PURPLE 0.31 Sh P 1000.00 ML Total 1048.40 ML Priority Compatibility 62.00 50.00 DE(1) DE(2) DE(3) 0.01 0.79 2.10 MI CR Cost 2.24 100.00 1.49 Consider Accepted Visually	BLUE 1.30 Sh OX YEL 75.81 Sh UMBER 2.11 Sh P 1000.00 ML Total 1048.80 ML Priority Compatibility 62.00 50.00 DE(1) DE(2) DE(3) 0.02 0.81 2.07 MI CR Cost 2.21 100.00 1.49 Consider Accepted Rejected Visually

The display includes:

- Every standard that was matched (all) / included in the queue or schedule
- Every *formula* found for each target (*all*). The formulas are sorted best-to-worst, from left to right, using the sort criteria defined for the template.

Formula Detail

Below is an explanation of all of the information provided for a single formula:



Formula Quality

Several characteristics of the formula are displayed to help evaluate and select the best formula to match the target. These characteristics cannot be customized.

Priority	The priority value displayed here is an average of the priority values assigned to individual ingredients in the formula. The default value for each ingredient is 50. The larger the assigned value, the higher the priority.
Compatibility	In Ingredient Maintenance you can identify ingredient combinations that you prefer to use in the formulas. This field indicates the compatibility value for this formula. The default compatibility value is 50. The larger the assigned value, the higher the compatibility.
DE(1)	The display includes color difference (DE) reports for Illuminants/Observer conditions 1, 2
DE(2)	and 3. The illuminant/Observer conditions are defined in Job Preferences/Tolerances. See
DE(3)	Dutucolor whiten From Entroser's Guide for details on creating/earling these tolerances.
MI	Metamerism Index. Displays the metamerism index for the formula. The lower the value, the better the match quality. The default method used is Curve Fit. <i>See Datacolor Match PIGMENT User's Guide, Job Preferences for details on creating/editing these tolerances.</i>
CR	Contrast Ratio. Contrast ratio indicates the hiding or translucency of the sample. A value of 0.0 indicates it is not active. <i>See Datacolor Match PIGMENT User's Guide, Job Preferences for details on creating/editing these tolerances.</i>
Cost	Formula Cost

Formula Acceptance

Filtering and sorting formulas based on the Formula View Criteria is a powerful tool to evaluate the queue results. In order to use this option, you must assign a criterion, or status, to the formula results. When a queue is matched, the program does not assign a status to any formula. The user must make that assignment.

BLUE		1.38 Sh
OX RED		0.26 Sh
OX YEL		76.27 Sh
Р	10	000.00 ML
Total	10	047.99 ML
Priority	Cor	npatibility
62.00	70.0	00
DE(1)	DF(2)	DE(3)
0.02	0.83	2.08
MI	CR	Cost
2.22	100.00	1.49
0		
Con:	sider 🛄 A	ccepted
Reje	cted 🗌 V	isually

Formula Status

Consider. The formula has been selected as	Accepted. The formula is accepted.
a potential candidate for use.	
Rejected. The formula is unacceptable.	Visually. The formula has been made, and the
	sample has been evaluated and accepted visually.
IN	IPORTANT

- For status other than *Accepted* or *Consider*, the formula status assignment must be done manually.
- You can automatically assign the status *Accepted* or *Consider* to multiple formulas using buttons at the top of the window. *See also <u>Formula Acceptance</u>*.

You can only assign **Consider**, **Accepted** and **Visually** status to one formula per target. You must check the formulas across the row to determine if the status is in use. If the status assignment is attached to another formula, you will see an error message:

Queue Viewer 🛛 🕅
This Sample Already Has A Consider Formula. Do You Wish to Replace it? (Yes / No)
Yes No

• Click **Yes** to make the assignment. The formula that was attached to this status will automatically be reset to *No Selection*.

Manual Formula Status Assignment

To manually assign a status to a formula:

1. Select a formula to evaluate.

DENCIN		2.30 Sh
OX YEL		41.23 Sh
YELLOW		35.00 Sh
Р	10	00.00 ML
Total	10	48.37 ML
Priority	Con	npatibility
62.00	70.0	00
DE(1)	DE(2)	DE(3)
0.03	0.90	0.96
MI	CR	Cost
1.30	100.00	1.48

The selected formula turns red. Click on the status to be assigned.

BLACK 2.30 OX YEL 41.23 YELLOW 35.00 P 1000.00 Total 1048.33	2 Sh 3 Sh 2 Sh 2 Sh 2 ML 7 ML		BLACK OX YEL YELLOW P Total	3 100 104	2.30 Sh 41.23 Sh 35.00 Sh 00.00 ML 48.37 ML	
Priority Compati 62.00 70.00 DE(1) DE(2) 1 0.03 0.90 0 MI CR C 1.30 100.00 1 Consider Accept ✓ Rejected Visually Note :	bility <u>DE(3)</u> .96 <u>ost</u> 48 ed 1	Click anywhere in the queue viewer to de- select the formula.	Priority 62.00 <u>DE(1)</u> 0.03 <u>MI</u> 1.30 ☑ Cons ☑ Reject Note :	<u>Com</u> 70.00 <u>DE(2)</u> 0.90 <u>CR</u> 100.00 ider Acc ited Vis	DE(3) 0.96 Cost 1.48 cepted ually	

Notes Option

A *Notes* field has been added to Queue Viewer. You can use this feature to create and store notes that are commonly added to a formula record. The notes can be recalled and attached to a single formula or to all formulas.

The option is useful when you have comments or notes that can be attached to a large number of formulas. For example, a particular base may require a primer to be applied to the substrate before it is painted. The note "may require a primer" can be attached to all formulas using that particular base.

To access the Notes option, select a formula that needs a note, right-click to view the menu, and select Edit Notes:



1. The Notes Editor displays. Click on the **Add** icon to create a new note.

🐁 Note E	ditor		×
Note	Editor 🛛 🔍 + 🛱 🦯	\sim	
IsSelected	Note		
			 _

2. In the *Note* field enter the comment.

Note	Editor Q + 💼 ^ V		
Selected	Note		
	rejected for 2 yellow colorants		

- 3. **Click Save** to store the note.
- 4. Click in the *Selected* box to attach the note to the selected formula:

Note Editor					-		7
Note Editor			Q + 🗇 🗸	\sim			
elected Note							
✓ reject	ted for 2 yellow co	lorants					
Display Items	All Search Filter Sr	lected				10	1 lt

5. Click Add. The note will be added to the selected formula record.

	2.30 Sh 41.23 Sh	
	41.23 Sh	
35.00 Sh		
1000.00 ML		
10	48.37 ML	
Compatibility		
70.00		
DE(2)	DE(3)	
0.90	0.96	
CR	Cost	
100.00	1.48	
er 🗌 Ad d 🛄 Vi	ccepted sually	
	10 10 <u>Con</u> 70.0 <u>DE(2)</u> 0.90 <u>CR</u> 100.00 er Av d Vi	

Click anywhere in the grid to deselect the formula.

Ch			
0 Sh	2.30		BLACK
3 Sh	41.23		OX YE
0 Sh	35.00	/	YELLO
0 ML	1000.00		Р
7 ML	1048.37		Total
bility	Compatib		Priorit
	70.00		02.00
DE(3)	2) <u>D</u>	DE(2	DE(1)
.96	0.9	0.90	0.03
ost	Co	<u>CR</u>	MI
.48	00 1.4	100.0	1.30
ed y	Accepte	jected	
w c	for 2 yellow	rejected	Note
W	for 2 yellow	rejected	Note

Notes Menu

The Notes Menu includes additional Notes editing options. These options let the user edit an existing note, and add or remove notes from all *Visible* Formulas. "Visible" formulas are formulas that are displayed.



• Select either of the 3 options displayed the Notes Editor

🐁 Note Ed	litor	– 🗆 X
Note Ed	ditor Q + 💼 ^ V	
IsSelected	Note	
	rejected for 2 yellow colorants	
	formula to be prepared	î

Add Note to all Visible Formulas

When this menu option is accessed, the selected note is attached to all visible formulas. The note is added to all visible formulas, not to the visible formula for a single target color.

1. Select the Note to be attached, and click **Add**.

🐁 Note E	itor	-		×
Note E	litor Q + 💼 ^ V			
IsSelected	Note			
	rejected for 2 yellow colorants			
	formula to be prepared			٦
Display I	ems All Search Filter Selected		2 Ite	ms
		Cancel	Add	



BLACK		0.21 Sh	M	BLUE		1.38 Sh
BLUE		1.26 Sh		OX RED		0.26 Sh
OX YEL		76.40 Sh		OX YEL		76.27 Sh
P	10	00.00 ML		Р	10	00.00 ML
Total	10	47.97 ML		Total	10	47.99 ML
Priority	Con	npatibility		Priority	Com	patibility
62.00	70.0	00		62.00	70.0	0
DE(1)	DE(2)	DE(3)		DE(1)	DE(2)	DE(3)
0.04	0.75	2.06		0.02	0.83	2.08
MI	CR	Cost		MI	CR	Cost
2.22	100.00	1.49		2.22	100.00	1.49
Cons Reje	Consider Accepted Rejected Visually				sider Ac cted Vi	cepted sually
Note: fo	ormula to be	prepared		Note: fo	ormula to be	prepared
-						

Remove Note from all Visible Formulas

Choose this option from the Notes Menu. The Notes Editor Displays.

1. Select the note to be removed and click **Remove**.

🐁 Note Editor	-		\times
Note Editor Q +			
IsSelected Note			
rejected for 2 yellow colorants			
formula to be prepared			
Display Items All Search Filter Selected		2	Items
	Cancel	Rem	ove

The Note will be removed from all *Visible* formulas.

Queue Viewer Menus

The Actions Menu and Tolerances Menu provide the only access to specific program functions.

Actions Menu

The Actions Menu includes a series of options to add or edit formula information:



A "partial" queue is a queue that has run, but failed to find formulas for *all* targets.

	Name	Description	Туре	State	Created By
	Queue Results	F	older		User
0	4colorantsnew	C	Queue	Partial	User
P	6colorants original	C	Queue	Partial	User

When the Queue Viewer displays a partial queue, it displays the sample names for those colors that are unmatched:



Create New Queue with Unmatched Samples

This feature was added in v 3.4. To access this feature:

1. Click on the Actions Menu and select Create New Queue with Unmatched Samples

Ac	tions	Dispense About	
	Co	rrect Current Formula	
-	Me	asure Trial for Current Formula	
	Re	set All Visible Acceptance Criteria	
	Res	set Visible Considered Formulas	
	Cre	eate new Queue with Unmatched Samples	

A new queue will be created with the name of the original queue, and with "Not matched" appended to the end.

		6			-		CM	
OX RED	0.32	Sh	OX YEL	37.85 Sh	٣	OX RED	0.30 Sh	OX YEI
OX YEL	23.81	Sh	RED	0.56 Sh		OX YEL	21.47 Sh	RED
UMBER	12.71	Sh	UMBER	19.79 Sh		UMBER	11.48 Sh	UMBE
WHITE	817.58	Sh	WHITE	1557.52 Sh		WHITE	821.15 Sh	WHITE
M	473.68	ML	M	4.71 ML		D	473.68 ML	D
Priority	Compatibi	ility	Priority	Compatibility		Priority	Compatibility	Priorit
56.00	70.00		56.00	50.00		52.00	70.00	52.00
DE(1) C 0.01 0. MI C 0.49 10 Consider Rejected	DE(2) D .35 0.3 R Cc 00.00 1.7 Accepte Visually	A ne nam	ew Queue conta ned: 4colorantsi	aining the unmatch sa newNot Matched	mp	les has been o	× created and is	DE(1) 0.01 MI 0.52

The new queue will display in the Navigator list.

Delete	Tree Find Refresh View	Measure Cali	brate Properties	Form Cent	Tools	Admin	Set Maint Ing Maint	Sched Que Maint Ma
S	View (100 %)	Me	asure	Match	Quality		Mainten	ance
	Name	Description	п Туре	Stat	e C	reated By	Creation	Date
	Queue Results		Folder		ι	Jser	11/12/2017 12	:07:29 PM
1	4colorantsnew		Queue	Partial	ι	Jser	1/5/2018 10:04	1:39 AM
0	4colorantsnewNot Matched		Queue	Ready	ι	Jser	1/5/2018 10:32	2:11 AM

Tolerances Menu

The tolerances displayed in Queue Viewer are used to sort/display the formula results. They are *not* the acceptability tolerances used to calculate accept/reject formulas to match a target.

Compatibility And Priority
50.0
Primary DE
1.0
CR
99.0
Priority
50.0

Compatibility. Displays all formulas having a compatibility value greater than this value. *See also Ingredient Maintenance, Ingredient Compatibility Manager* for an explanation of this feature.

Compatibility and Priority. Displays all formulas having a combined Ingredient Compatibility and Priority value greater than this value. See also Datacolor MATCH PIGMENT User Guide, Ingredient Maintenance for an explanation of the compatibility and priority features.

Measured DE. For some formulas, you may have a physical sample made from a formula that is stored in the database. This entry displays all formulas which have a *measured DE* which less than this value.

Targets that do not have a measured DE (measurement of a physical sample) are excluded from the display.

Primary DE. Displays all formulas having a DE in the primary illuminant that is less than this value. *See also Data Color Match Pigment Users Guide, Formula Central, Tools Menu, Job Preferences, Tolerances for instructions to select the illuminant to be used for the Primary DE.*

Metamerism. Displays all formulas having a metamerism index value that is less than this value. *The default metamerism index used is Curve Fit.*

CR (contrast ratio). Displays all formulas having a CR (contrast ratio) that is greater than this value. Contrast ratio is only available for translucent colorant sets. *See also Formula Central, Tools Menu, Job Preferences, Appearance for instructions to display the contrast ratio for a formula.*

Cost. Displays all formulas having a total cost less than this value. The cost displayed for the formula is the total formula cost. This field can accept a maximum of 8 characters (00,000,000). See also Ingredient Maintenance for instructions to assign a cost to an ingredient.

Priority. Displays all formulas having an Ingredient Priority value that is greater than this value. A priority value is calculated for a formula based on the priority values assigned to each ingredient in the formula. See also Ingredient Maintenance, <u>Ingredient Priority</u> for an explanation of this feature.

Queue Viewer and Navigator

Queue Viewer, Queue Maintenance and Match Queue options can also be launched from Navigator.

1. In Navigator, select the queue folder, and right-click to see the menu:

00_DB <#540>		Name	Des	Туре	State	Created By		Creation Date	Modified By	М	odification Date	L*
gredient System	Ê	Job 431 RAL5002-HR 01/98	Job		Match Output	User	8/3/	2017 1:58:28 PM	User	8/3/2	017 1:58:28 PM	
Default	Ê	Job 432 RAL6022-HR 01/98	Job		Match Output	User	8/3/	2017 1:58:33 PM	User	8/3/2	017 1:58:33 PM	
Formulas	Ê	Job 433 S 8010-R10B	Job		Matul, output	User	ð	RAL Step Matching		13/2	017 1·58·39 PM	
NCS Queue Examples	Í	Job 434 RAL1003-HR 01/98	dor		Match Output	User		Open With		2	Oueue Maintenance	
Queue Results		Job 425 war 1026-HR 03/02	Job		Match Output	User		New Folder		•	Queue Viewer	
Queue with Step Matching		lob 436 RAI 1028-HR 03/02	Job		Match Output	User	۳,	New Schedule			Match Queue	
Queue without Step Matching		Job 437 RAI 1023 HR 03/02	Job		Match Output	User	6	New Queue		13/2	017 1.50.51 PM	
Ral		JOD 457 KAL1055-HR 05/02			Match Output	User		Properties	Ctrl+P	-15/2	017 1.50.55 PIVI	
ash Can		Job 438 RAL1034-HR 01/98	Jop		Match Output	User		Dependencies	Ctrl+D	(3/2)	017 1:58:59 PM	
		Job 439 RAL2003-HR 07/02	Job		Match Output	User	/	Rename	Ctrl+N	- /3/2	017 1:59:03 PM	
		Job 440 RAL2004-HR 07/02	Job		Match Output	User	x	Delete	Delete	(3/2	017 1:59:07 PM	
	Ê	Job 441 RAL2005-HR 07/02	Job		Match Output	User		Cut	Chely V	- /3/2	017 1:59:12 PM	
	Ê	Job 442 RAL2007-HR 02/02	Job		Match Output	User	20	Cut	Ctrl+A	/3/2	017 1:59:16 PM	
	Ê	Job 443 RAL2008-HR 01/98	Job		Match Output	User		Pasto	Ctrl+V	/3/2	017 1:59:21 PM	
		Job 444 RAL3024-HR 11/02	Job		Match Output	User		D D D	Curry	/3/2	017 1:59:25 PM	
		Job 445 RAL3026-HR 11/02	Job		Match Output	User		Purge Queue(s)		/3/2	017 1:59:29 PM	
		lob 446 RAI 4010-HR 01/98	lob		Match Output	llsor		Compare		13/2	017 1.50.33 PM	
			000		Dential	User	0./2	CSV Export Settings	Lines	0/2/2	017 0.00.15 PM	
		KAL Step Matching	Quei	le	Partial	User	8/3/	2017 1:14:57 PM	User	8/3/2	J17 2:06:15 PM	

2. Click **Open With Queue Viewer**. The default display includes all of the formulas stored in the queue.

Ingredient Maintenance

This program option stores non-colorimetric information about each ingredient in the system.

Ingredient Maintenance 4.0

The Ingredient Maintenance and Ingredient Compatibility windows have been updated to improve easeof-use and to be consistent with the interface now used for Queue Maintenance, Schedule Maintenance and Product Line Maintenance. Note the following:

- No changes have been made to the functions for assigning and editing ingredient compatibility.
- Keywords access has been moved to the lower grid.

Ingredient Code field is an internal program code, which was added in v 3.4.

Old Window

Prior to this release, the Ingredient Maintenance window only displayed data for a single ingredient record.

oup : 🛛	None			J 🚺	New Ingredient	1	New Lot	H	1	1 E	• •		2	
চন	Ingredient <u>N</u> ame	e		▲ ► 5 ⁵	Ingredient L	ot ID	ī							
	Additive A			- 🕹	RIMPRAL	JI _	<u> </u>							
	Ingredient <u>G</u> rou	р			Density			-						
	None			-	0.7280	KG	. _ /∟	-						
	Ingredient Abbr	eviation			Cost									
					6.66	\$ /	'L _	<u>.</u>						
	Ingredient Type				Strength									
	Auxiliary			-	100.0000	%								
	Display Rank													
				40										
	Priority													
				50										
		D	Comp	onents						U	Lot Hist	tory		• •
	2	0	?		<u>%</u>	3	\$	ž	6				1672.S	
	RA101	~	~	100.00	0.7280	KG/L		6.66	L -	11/23	/1999	-		_

New Window

The new layout makes it possible to view all of the records and to locate and move between individual records in the database from a single window.

New Window

Hie Eult GO I	Jois About		_				_				_		_				_		
Ingredient M	aintenance																		
Ingredient List		6	a +	- 🗅 🗊	i										Densit	y KG	✓ / L	~	₽
ngredient Name	Abbreviation	Ingredient Group	Ingred	Jient Code	Ingredient T	ype	Priority	Lot ID	Density	Cost	Cost	t Basis	Stren	Rank					
Transparent Base	TR	DEMO			Base	~	20	1	1.27;	1.21	L	~	1	1]				
White	WHITE	DEMO			White	~	50	1	1.875	1.8	L	~	1	1					
Black	BLACK	DEMO			Color	\sim	50	1	1.235	1.24	L	~	1	1					
Violet	VIOLET	DEMO			Color	~	50	1	1.112	1.1	L	~	1	1					
Green	GREEN	DEMO			Color	~	50	1	2.217	2.2;	L	~	1	1					
Phtalo Blue	Pht BLUE	DEMO			Color	~	50	1	1.954	1.9!	L	~	1	1					
Deep Blue Display Items All S	D BLUF Search Filter Selected	DEMO			Color	~	50	1	1.297	1.3	1	~	1	1					41 Items
Components	Keywords	Lot Histories	£																`
Transparent Base	2 + 0																		
.ot ID		Available [Jefault	Density		Weight		Vol	ume	Cost			c	ost Basis		Strength	%	Start Date	
1				1.277		KG		L		1.28				L	~	100		9/25/2007	6

Ingredient Maintenance Details

The ingredient list is displayed at the top of the window. Details about the components, keywords and lot histories for in an individual ingredient are accessed from the tabs below the ingredient list.

Component Compatibility. Click on this

					o N	ptic /lana	n to c ager.	pen	the Ingredient Compatibility
Ingredient N	laintenance								Component Compatibility
Ingredient List		Q -	- 🗅 🗊						Density KG V / L V
Ingradient Nome	Abbreviation	Ingradiant Group Ingra	llent Code	Ingredient T		Priority	Lat ID	Density	Cont ContRails Street Bank
Transparent Base	TR	DEMO		Base	\sim	20	1	1.27	
White	WHITE	DEMO		White	~	50	1	1.879	In gradient list. The ten half of the window
Black	BLACK	DEMO		Color	~	50	1	1.239	ingredient List. The top han of the window
Violet	VIOLET	DEMO		Color	\sim	50	1	1.114	displays the ingredient list.
Green	GREEN	DEMO		Color	~	50	1	2.21	
Phtalo Blue	Pht BLUE	DEMO		Color	\sim	50	1	1.954	
Deen Blue	D BLUF	DEMO		Color	\sim	50	1	1.293	
Display Items All	Search Filter Selected	Let Histories							Components Keywords and Lot History
Components	Keywords	Lot Histories	$ \rightarrow $						components, Reywords and Lot History
Transparent Base	e + 🖸								Grids. Components and Lot History details
Lot ID		Available Default	Density		Weight		Volu	me	for the selected ingredient are accessed
1			1.277		KG		L		from the tabs at the bottom of the
									window. Keywords have also been moved to the tabs at the bottom of the window.

Customize and Reconfigure Ingredient List

The Editing bar includes options to Add, Search, Edit and delete ingredient records. *See <u>New</u>* <u>Maintenance Grid Design</u> for details on the Editing Bar.

Ingredient M	laintenance					_											c	omponent C	lompatibi	lity
Ingredient List			Q -	+ 🗅 🛍	-	_		Editi	ng Bar						Densit	y KG	✓ / L	~	7	
Ingredient Name	Abbreviation	Ingredient Gro	up Ingre	adient Code	Ingredient T	ype	ritority	0010	benaty	CON	C	ost Basis	Stren.	Rank						-
Transparent Base	TR	DEMO			Base	~	20	1	1.277	1.28][LV	1	1						
White	WHITE	DEMO			White	~	50	1	1.879	1.8{		LV	1	1						
Black	BLACK	DEMO			Color	\sim	50	1	1.239	1.24		LV	1	1						
Violet	VIOLET	DEMO			Color	~	50	1	1.114	1.1*		LV	1	1						
Green	GREEN	DEMO			Color	~	50	1	2.217	2.2;		LV	1	1						
Phtalo Blue	Pht BLUE	DEMO			Color	~	50	1	1.954	1.9!		LV	1	1						
Deep Blue Display Items All	D BLUF Search Filter Selected	DEMO			Color	~	50	1	1.297	1.3		· ~	1	1					41 Ite	- ems
Components	Keywords	Lot Histo	ries																	~
Transparent Base	e + 🖸																			
Lot ID		Available	Default	Density		Weight	t	Vol	lume	Cost				Cost Basis		Strength	%	Start Dat	te	
1		~	۲	1.277		KG		L		1.28				L	\sim	100		9/25/20	007	

Immediately below the Component Compatibility button are 2 icons used to edit the content and configuration of the ingredient list:



Ingredient Compatibility Manager

Click on **Component Compatibility** button to display the Ingredient Compatibility Manager.

¶ Ingredient Maintenance File Edit Go Tools About	Component Compatibility Button	1772	٥	×
Ingredient Maintenance	launches Ingredient Compatibility Manager	Componer	nt Compa	tibility

Configuration

Click on the **Set Columns** icon to customize the Ingredient Compatibility Manager.





Set Columns Option

elected	Columns	Width	
\checkmark	First Ingredient	256	
\checkmark	Second Ingredient	256	
\checkmark	Third Ingredient	256	
\checkmark	Fourth Ingredient	256	
\checkmark	Fifth Ingredient	256	
\checkmark	Compatibility Percent	128	

See <u>New Maintenance Grid Design</u> for details to customize the display.

Ingredient Grids

Three ingredient grids, Components, Keywords and Lot Histories are available at the bottom of the window:

Ingredient Components

Select an ingredient from the ingredient list, and click on the Component tab to view the ingredient components in the grid:

Components	Кеум	ords	Lot His	tories		
Oxide Red	+ 🗇		Amount	Use entr	the icons on the ries from the Con	Editing Bar to add or delete nponents Grid.
			-			

Ingredient Keywords

Select an ingredient from the ingredient list, and click on the Keywords tab to view or edit the keywords assigned to the ingredient.

Tran	sparent Base + 0	11
fosign	Name	Table
~	Light Fastness	3
	UV Stability	250
	Organic Pigment	

Value. For some keywords, a value must be attached in order to complete the sort. For example, you may want to search for a formula with a light fastness rating. Enter a value if one is required.

Ingredient Lot Histories

Select an ingredient from the ingredient list, and click on the **Lot Histories** tab to view or edit this information.

溢 Ingredient Maintenance																-	٥	×
File Edit Go Tools	About																	
Ingredient Mair	ntenance															Compone	nt Compatibi	ility
Ingredient List		Q	+ 🗅 💼												Density KG	✓ / L ✓] Y	
Ingredient Name	Abbreviation	Ingredient Group	Ingredient Code	Ingredient Type	Priority	Lot ID	Density	Cost	Cost Basis	Stren	Rank							4
Transparent Base	TR	DEMO		Base	✓ 20	1	1.275	1.2(LV	1	1							
White	WHITE	DEMO		White	✓ 50	1	1.879	1.8(LV	1	1							
Black	BLACK	DEMO		Color	✓ 50	1	1.239	1.24	LV	1	1							
Violet	VIOLET	DEMO		Color	✓ 50	1	1.114	1.1	L V	1	1							
Display Items All Searc	h Filter Selected																41 ite	ems
Components	Keywords	Lot Histories																~
Violet 🕂 🗋																		
Lot ID		Available Defaul	It Density	Weight		Volume		Cost		Cost B	asis		Strength %	Start Date	End Date			
1		 	1.114	KG		L		1.11		L		\sim	100	9/25/2007				

You can add or copy lot history information for the ingredient. Lot Histories cannot be deleted.

Schedule Maintenance

Schedules are created to match large color queues. For users running hundreds or thousands of colors through a single job template, there will be a significant number of unmatched targets. The Schedule function enables the user to store several job templates for use in matching a single set of targets. A schedule directs the program to automatically retry with the 2nd, 3rd, 4th, etc. template to find an acceptable match when a match is not found using a single job template.

Schedule Maintenance DMP 4.0

Functional changes to Schedule Maintenance in this release include:

- The Schedule Maintenance window has been updated for consistency with other maintenance grids in Datacolor Match Pigment.
- DMP can now match a target using different product lines without requiring separate queues(Multi-schedule) See <u>Queue Maintenance</u> for instructions to create a multi-schedule queue.

Schedule Maintenance Details

The new interface design provides fundamental information about the details of each job template without requiring the user to navigate to a different screen.

Old Window

💣 Sc	hedu	ule Maintenance				
File	Abou	ıt				
		Schedule Name				
		Base Select				
		Job Template(s)				
		Job Template	Match Type		Location	
	•	Pastel Base	Combinatorial	*	My Database\Ingredient System\Demo Folder	
		Medium Base	Combinatorial	۷	My Database\Ingredient System\Demo Folder	↓
		Deep Base	Combinatorial	۷	My Database\Ingredient System\Demo Folder	
		Extra Deep Base	Combinatorial	۷	My Database\Ingredient System\Demo Folder	+
		Transparent Base	Combinatorial	*	My Database\Ingredient System\Demo Folder	
	*	New			Save Cancel	

New Window

Schedule Maintenance									
Schedules	Schedules Q + D m								
Schedule Name Location									
Auto Base Select My Database\Ingredient System\Default									
Display Items All Search Filter Selected	Display Items All Search Filter Selected 1 Item								
		14.4.4 T	21.2	Delete All					
Pactol Paco 1	My Databaco/Ingradiant System/Dafault	Auto Reformulato	Phony	1					
Pastel Dave 2	My Database (ingredient System (Default	Auto Reformulate	1						
Pastel base 2	wy Database\ingredient System\Default	Auto Reformulate	1						
Pastel Base 3	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	2						
Medium Base 1	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	3						
Medium Base 2	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	4						
Medium Base 3	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	5						
Deen Base 1 Display Items All Search Filter Selected	Mv Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	6	T5 Items					

The layout and controls are consistent with the maintenance interface found in other DMP program modules. *See also <u>New Maintenance Grid Design</u> for details regarding the common controls and indicators found on the grids in DMP.*

Other Schedule Maintenance Configuration Options

Details about the templates contained in a schedule are accessed directly from a control on the window, or from a menu, including:

- Match Type
- Job Priority
- Open Job Template
- Remove Current Job Template from Schedule

Job Templates	Q + 🖻 ^ V			Delete All ••••
Job Template Name	Location	Match Type	Priority	
Pastel Base	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	0	
Medium Base 1	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	1	
Deep Base 1	My Database) Incredient System) Default Open Job Template Remove Current Job Template from Schedu	Auto Reformulate V	2	
Display Items All Search Filter Selected				2 Items
= [] The page contains unsaved item	s			Undo All Save

Edit Match Type

1. Highlight a job template and click the down arrow in the Match Type field to view the options:

Job Templates	Q + 🖻 ^ V		
Job Template Name	Location	Match Type	Priority
Pastel Base	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	0
Medium Base 1	My Database\Ingredient System\Default	Search Only	1
Deep Base 1	My Database\Ingredient System\Default	Search and Correct	2
17121 (517 - 517) (517 - 517)	special and a constraints of the constraints and the constraint sector and the constraint sector and the sector sect	Combinatorial	
		Auto Reformulate	
		Ask at Match Time	
			d.

2. Highlight the change. In this example, the *Match Type* for job template Pastel Base has been changed to Combinatorial.

Job Templates	Q + 💼 ^ V			
Job Template Name	Location	Match Type		Priority
Pastel Base	My Database\Ingredient System\Default	Combinatorial	\sim	0
Medium Base 1	My Database\Ingredient System\Default	Auto Reformulate	\sim	1
Deep Base 1	My Database\Ingredient System\Default	Auto Reformulate	\sim	2

3. Click **Save** to make the change to the schedule. This change does not affect the job template.

IMPORTANT

• When the Schedule option finds a single match for a target, it will consider the target "matched" regardless of the number of formulas requested by the job template.

Edit Job Template Priority

The job template grid displays all of the templates stored for the selected schedule.

Job Templates Q + ∩ Delete All							
emplate Name	Location	Match Type	•	Priority	A		
tel Base 1	My Database\Ingredient System\Default	Auto Reformulate	~	0	Priority. A priority of 0		
tel Base 2	My Database\Ingredient System\Default	Auto Reformulate	~	1	identifies the first ion templat		
tel Base 3	My Database\Ingredient System\Default	Auto Reformulate	~	2	used by the schedule. Th		
dium Base 1	My Database\Ingredient System\Default	Auto Reformulate	\sim	3	the priority number the		
lium Base 2	My Database\Ingredient System\Default	Auto Reformulate	~	4			
dium Base 3	My Database\Ingredient System\Default	Auto Reformulate	~	5	priority.		
en Base 1 Display Items All Search Filter Selected	Mv. Database\Incredient System\Default	Auto Reformulate	~	6	▼ 15 Items		

All target colors are run through the job template with Priority = 0. Unmatched targets are then run through job templates 1-n, until a match is found. Priority is assigned based on the order of the job templates in the schedule.

To change the priority assigned to a job template in the schedule, use the up/down buttons to change the order of the templates.

Job Templates	Q + 💼 /	~ ~					Delete All
Job Template Name	Location	N	Match T	уре		Priority	
Pastel Base				Reformulate	\sim	0	
Medium Base 1	Used to reorder priority ass	igned to)	Reformulate	\sim	1	
Deep Base 1	the template.			Reformulate	\sim	2	

Open Job Template

This option provides access to all of the job templates in the folder.

1. Select a job template from the Schedule and right-click to access the option.

Job Templates	Q + 🛍 ^ V			Delete	All
Job Template Name	Location	Match Type	Priority		
Pastel Base	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸 🗸	0		
Medium Base 1	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	1		
Deep Base 1	Mr Database) loggediget System) Default Open Job Template Remove Current Job Template from Sched	Auto Reformulate V	2		
Display Items All Search Filter Sel	ected				2 Items
The page contains unsa	ved items			Undo All	Save

The navigator dialog displays:



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2. Select job template, and click **Open**. This option adds a new template to a schedule. It does not open the job template itself.

Configure Job Template Details Display

You can customize the order and size of the fields displayed in the Schedule Maintenance grid.

1. To access these options, click on the **Set Columns** button.

Job Templates	Q + ± ^ ~		Delete Alt
Job Template Name	Location	Match Type Priority	
Pastel Base 1	My Database\Ingredient System\Default	Auto Reformulate 🗸 0	
Pastel Base 2	My Database\Ingredient System\Default	Auto Reformulate 💙 1	Set Columns button
Pastel Base 3	My Database\Ingredient System\Default	Auto Reformulate 💙 2	
Medium Base 1	My Database\Ingredient System\Default	Auto Reformulate 💙 3	
Medium Base 2	My Database\Ingredient System\Default	Auto Reformulate 🗸 4	
Medium Base 3	My Database\Ingredient System\Default	Auto Reformulate 🗸 5	
Deen Rase 1	Mv Database\Incredient Svstem\Default	Auto Reformulate 🗸 6	*
Display Items All Search Filter Selected			15 Items

The dialog below displays:

	Chan	ge the column order		
Selected	Columns	Width		
\checkmark	Job Template Name	256	Enter a d	ifferent column width The
\checkmark	Location	600	width is e	expressed in pixels.
\checkmark	Match Type	150		
\checkmark	Priority	60		
		Cancel	Save	

2. Make changes as needed and click Save.

Delete Job Templates

You can delete a template from a Schedule using either the delete icon or the menu option.

1. To delete a job template, highlight the template to be deleted (*Medium Base 1*). **Right-click to** *view the menu* OR *click on the delete icon*.

Job Templates	Q + 🖻 ^ ~			Delete All
Job Template Name	Location	Match Type	Priority	
Pastel Base	My Database\Ingredient System\Default	Auto Reformulate 🗸 🗸	0	
Medium Base 1	My Database\Ingredient System\Defaul	Auto Reformulate	1	1
Deep Base 1	My Database\Ingredient System\Defaul	Remove Current Job Templa	ate from Schedule	
		,		

WARNING: The Delete icon deletes the record immediately without displaying a confirmation dialog.

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Product Line Maintenance

Product Line Maintenance is a program module used to set up systems, brands and bases for the retail PAINT application. The new maintenance window design has been applied to Product Line Maintenance. See also <u>New Maintenance Grid Design</u> for an explanation of the controls and indicator common to this updated design.

Prod	uct Line Maintenance								
le	Help								
lanı	facturer				System				
latac	olor Demonstration MFG		Add	Delete	Decorative Alkyd	l System -E	U	•	Add Delete
rano	i					D	efault Can Si	zes	
igh (iloss Interior		Add	Delete	POS Data		Add/Edit	Default Cans	
ean	sh Folder		Non	ault Can Size e	•				
se	;					Colorar	nts		
	Colorant Set	Base Colorant	Ingredient Name	Abbreviation	n Strengti		Selected	Colorant Name	Ingredient Name
	Demo Paint	Deep Base	Deep Base	Deep		Þ		Transparent Base	Transparent Base
-	Demo Paint	Medium Base	Medium Base	Medium				White	White
	Demo Paint	Pastel Base	Pastel Base	Pastel	1		V	Black	Black
	Demo Paint	Transparent Base	Transparent Base	Transparent				Violet	Violet
								Oreen Obtele Dive	Oreen Obtels Dive
								Pricalo Blue	Pricato Blue
	III				Þ	•		0000 000	beep blue
ise	Can Sizes				,				
	Label C	an Size Can Size L	nit Is Empty Can	Short Fill	Short Fill Unit	Full Fi	I Full	Fill Unit Over F	il Over Fill Unit
	10	1.000,0000 ML	▼	900,000	ML	1.00	0.0000 ML	1.05	0,0000 ML
	5 Lt	5.000,0000 ML	▼ □	4.500,0000	ML	5.00	0.0000 ML	5.25	0.0000 ML
			m						

New Window

■ Product Line Maintenance	■ Product Line Maintenance com									Compatibility
Manufacturer Datacolor	× ~ +	System Decorative Alkyd Syst	em	>	< <mark>~</mark> +	Brand High Gloss	Exterior			× 🗸 +
Bases	+ ሰ ^	~								
Colorant Set Base 0	Colorant		Ingredient Na	ame		Abbreviation	1	Strength	Match Film Thick	ness Auto
Demo Paint Paste	el Base		Pastel Bas	se		Р		100	1	
Demo Paint Med	ium Base		Medium I	Base		М		100	1	
Demo Paint Deep	Base		Deep Bas	e		D		100	1	_
Demo Paint Trans	parent Base		Transpare	ent Base		TR		100	1	
4										•
Display items All Search Filter Selected										4 items
Colorants Base Can Sizes										~
Colorants	$Q \land \lor$									
Selected Colorant Name	Ingredient Nar	ne		Abbreviation	Strength	Is Topoff	Minimum %	Maxir	num % Pric	ority
White	White			WHITE	100	۲	0	100) 5	0
- Black	Black			BLACK	100	0	0	100) 5	0
Violet	Violet			VIOLET	100	\bigcirc	0	100) 5	0
✓ Green	Green			GREEN	100	\bigcirc	0	100) 5	0
V Phtalo Blue	Phtalo Blue	•		Pht BLUE	100	\bigcirc	0	100) 5	0
Deep Blue	Deep Blue			D BLUE	100	\bigcirc	0	100) 5	0 •
Display Items All Search Filter Selected										17 Items
-									Undo All	Save

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Product Line Maintenance 4.0 Details

The min/max concentration values can be now be expressed as either amount or percent

Colorants	Base Can Sizes				
Colorants		Q	~ ~ .	,	
Colorant Name		Selected	Minimum %	Maximum %	Abbreviation
White		~	0	100	WHITE
Black		~	0	100	BLACK
Violet		~	0	100	VIOLET

- In the case of percent, the user must identify whether the mode of expression is weight percent or volume percent.
- In the case of amount, the user must identify the units to be used:

P	ercent		Amount					
Product Line		Min/Max Mode						
Datacolor	Options	Amount	× ×					
System Decorative Alkyd System	Options		KG					
Brand			KG					
High Gloss Exterior	Options		L					
Details			G					
Search Folder	Browse		LB					
Default Can Size								
	~							
Min/Max Mode								
Weight Percent	· ·							
Volume Percent								
Amount								

Product Line Maintenance Menu

To select, add, edit or delete a product line:

1. Click on the Product Line Maintenance Menu:

Product Line Maintenance File Options About	- 🗆 🗙				
Product Line Maint	Component Compatibility				
Manufacturer		System		Brand	
Datacolor	× ~ +	Decorative Alkyd System	× 🛩 🕂	High Gloss Exterior	× 🛩 🕂

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2. The product line details are displayed. Use these fields to create/edit *Product Line* information.

× Product Line Manufacturer Datacolor Options System
Decorative Alkyd System Options Brand High Gloss Exterior Options Details Search Folder Browse Default Can Size ~ Min/Max Mode ~ Volume Percent Default Can Sizes POS Data POS Transfer

Data Navigator

There have been several improvements to the Navigator feature beginning with v 3.0. These improvements include:

- Queues can be launched and purged directly from Navigator.
- Queue results can be compared from Navigator.
- All delete functions now run in the background. Datacolor MATCH PIGMENT is now truly a multi-tasking program.
- A progress bar displays when deleting data objects. This is especially helpful when deleting large groups of data including the trash can.
- When deleting data from the Navigator module, data objects are permanently deleted. They are <u>not</u> moved to the trash can.
- Database menu has been added. This includes functions to create and import Datacolor databases.
- Recalculate RGB's. When 20 nm measurement data is used, the color patch is not always a good representation of the color. This option recalculates the RGB's for the samples selected, and should improve the accuracy of the on-screen color.
- Enter offset values. Offset values can be entered directly from Navigator.
- Icons have been added to the right side of the Navigator menu bar.



lcon	Feature					
[v4.0.1.2]	Identifies version of Datacolor Match Pigment that is running.					
\odot	Hide/Show ribbon bar					
	Current language selection. Click the icon to view the available languages and select one.					

Launching and Purging Queues

Queues can be launched or purged directly from the Navigator. You can select a single queue, or multiple queues to run either option.

Launching a Queue

1. Double-click on a queue labeled *Ready* to start matching:

File Edit Data	abase Vie	ew Go	o Instru	ment Help								[v4.0.0.32]) 🔳 🕜
Prev Next Up Delete Find Refresh View Measure C				Measure Calibrate	Properties	Form Cent	Tools	Admin S	et Maint Ing Maint Maint M	PLM aint	Import Export Data Exchange		
Navigation	Navigation Folder Options View (100 %)		Measur	Measure Match Quality Maintenance			Data Transfer						
2000_DB <#540	>			Name	Description	Туре	State	e Ci	reated By	Creation Date	Modified	By Modification Date	e L*
Ingredient Syste	em			Queue Results	Fo	lder		L	Jser	11/12/2017 12:07:29 PM	User	11/12/2017 12:07:56	6 PM
Formulac				4colorantsnew	Q	ueue	Partial	L	Jser	1/5/2018 10:04:39 AM	User	1/5/2018 10:09:09 A	M
NCS			0	4colorantsnewNot Matched	Q	ueue	Ready	ι	Jser	1/5/2018 10:32:11 AM	User	1/5/2018 10:32:11 A	M
Queue Exam	nples		0	6colorants original	Q	ueue	Partial	L	Jser	1/5/2018 9:48:13 AM	User	1/5/2018 10:22:37 A	M
Queue Results		opaque	Q	ueue	Ready	L	Jser	11/12/2017 12:45:02 PM	User	11/12/2017 12:56:14	4 PM		

The queue matching wizard launches.

Туре	State	Created By	Creation Date	Modified By	Modification Date	L*	a*		
Folder		User	11/12/2017 12:07:29 PM	User	11/12/2017 12:07:56 PM	1			
Queue	Partial	User	1/5/2018 10:04:39 AM	User	1/5/2018 10:09:09 AM				
Queue	Part 🧏 Quei	e Matching				- I			
Queue	Rea					1	🤪 _ Q		
Queue	Real Start	Queue I	Matching				ॅ. २ 🗞		
	Quei Num Job T	ue to be m ber of sam Femplate:	atched: ples in queue:	4colorantsnewNot Matched 6 Red Yellow Black White					
	Match Comb	<u>M</u> ethod natorial port To CSV	•	•					
	[🗸 Begin	×	Cancel					

- View/change the *Match Method*.
- Enable/disable *Export to CSV*.
- 2. Click **Begin.** The queue will run and you will be notified when it is complete.

Purge a Queue

1. Select a *Queue* with State *Partial* or *Complete*, and right-click to display the menu:

RAL Step Matching	Queue	Complete	
The conversion manual	1	RAL Step Matching	
		Open With	•
		New Folder	
	8	New Schedule	
	a	New Queue	
		Properties	Ctrl+P
		Dependencies	Ctrl+D
	1	Rename	Ctrl+N
	X	Delete	Delete
	A	Cut	Ctrl+X
		Сору	Ctrl+C
		Paste	Ctrl+V
		Purge Queue(s)	
		Compare	•
		CSV Export Settings	

2. Select **Purge Queue(s)**. A confirmation dialog will display:

?	Do you really want to purge the selected Queue(s)?
	Ves No

When the purge is completed, all of the jobs in the queue are deleted, and the Queue State is changed from *Complete* to *Ready*.

	Name	Description	Туре	State	Created By	Creation Date	Modified By	Modification Date
-	RAL Step Matching		Queue	Ready	User	8/3/2017 1:14:57 PM	User	1/12/2018 11:33:22 AM
54 M 10								

Compare Queue Results

The results from any queues marked *partial* or *completed* can be accessed and compared. You can compare queue results between 2 or more queues. The data is stored in a CSV file format which can be opened with commonly used 3rd party software.

To use the Compare option:

1. In Navigator, highlight a queue to be included in the comparison and left click to see the menu.

	Name	Dese	cription Ty	pe State	Created By	Creation Date Modified By Modification Date L	*
	Queue Results		Folder		User	11/12/2017 12:07:29 PM User 11/12/2017 12:07:56 PM	
	4colorantsnew 6colorants original	ð	4colorantsnew Open With		User 1 User 1	The name of the selected queue is displayed at the top of the	
	opaque		Properties Dependencies	Ctrl+P ctrl+D	User	[™] menu.	
		×	Rename Delete	Ctrl+N Delete			
		8	Cut Copy	Ctrl+X Ctrl+C			
		1.54	Paste Ctri+V Purge Queue(s)		Compare	re Assiret One Ousue	
4			CSV Export Settings		Compare	re Against Many Queues	>

- 2. Select **Compare** and choose the number of queues to be included in the comparison. In this example, the results for the selected queue will be compared to one queue.
- 3. Navigate to the folder containing the queue to be included in the comparison and select it:

[™] ≝ Open					×
			[v4.0.0).32] 📀) 🕜
 CC2000_DB <#540> Ingredient System Default Formulas NCS Queue Examples Queue with Step Mate 		Name Queue Results 4colorantsnew 6colorants original opaque	Description	Type Folder Queue Queue Queue	State Partial Partial Ready
Queue without Step	(Tatal	>
ζ	riiter .		V Open	Xc	ancel

4. Click **Open.** The program will prompt you for a file name and location to save the queue comparison. You can make a new folder or store it in an existing folder.

^
^
~

5. Create/highlight the folder location and click **OK**. The comparison is immediately executed.

📙 🔄 📜 👻 Queue Comparison			
File Home Share View			
\leftarrow \rightarrow \checkmark \uparrow \blacksquare > This PC > Documents > Que	ue Comparison		
^ Name ^	Date m	odified Type	Size
Colorantsnew_vs_6c	olorants original 1/5/201	18 10:18 AM File folder	
📮 Downloads 🚿			

Below is an example of the information included in the queue comparison.

1	A	В	C	D	E	F	G	Н	I	J
1	Queue Name	Standards	Average Cost	Average DE1	Average CR	Average MI	Average Co	mpatibility	and Priorit	y
2	4colorantsnew	3	1.67	0.04	100	1.33	55.97			
3	6colorants original	7	1.65	0.05	100	1.19	53.66			
4										
5	Templates in 4colorantsnew:	Red Yellov	v Black White							
6	Standards Matched Per Template	3								
7										
8	Templates in 6colorants original:	Red Yellov	v Black Blue Gre	een White						
9	Standards Matched Per Template	7								
10										
11	Bases used in 4colorantsnew:	D	ED	М	Ρ	TR				
12	Standards Matched Per Base (Accepted	0	0	0	3	0				
13	Average Cost Per Base	0	0	0	1.7	0				
14										
15	Bases used in 6colorants original:	D	ED	М	Ρ	TR				
16	Standards Matched Per Base (Accepted	0	0	0	7	0				
17	Average Cost Per Base	0	0	0	1.67	0				

New Delete Features

Delete functions now run in the background. This includes the option to empty the trash can. Below are important notes regarding this functionality:

• If the data selection is large, a progress bar displays at the bottom of the window to provide the status of the delete function:



• If you use the Windows command (Shift/Delete key combination) to delete data objects, this is a permanent delete function. The data is not moved to the trash can, **it is permanently deleted**.

Database Menu

A new Database menu has been added to the Navigator menu bar. It included maintenance options used for both Datacolor MATCH PIGMENT color databases and Paint databases.

📲 Navigat	or	_		
	Data	abase		
1.		Back	up Database	Alt+B
	8	Crea	te New Database	Alt+E
	1	Impo	ort from Paint Database	Alt+F

- **Backup Database.** Choose this option to make a backup of the current Datacolor MATCH PIGMENT database (color.db).
- **Create New Database.** Creates a new, empty color.db for Datacolor MATCH PIGMENT. <u>This</u> <u>feature should be used only under the direction of a Datacolor Applications Engineer.</u>
- Import from Paint Database. Imports a *.mdbfdt file for use with the current version of Datacolor PAINT. <u>This feature should be used only under the direction of a Datacolor</u> <u>Applications Engineer.</u>

Recalculate RGB

When measurement data is limited to 20nm input, the color patch displayed on the screen does not always accurately represent the color of the sample. This option is used to recalculate the RGB values for the sample. When this option is applied, the color patch displayed after the recalculation should be a closer representation of the sample color.

This option is accessed from Navigator. To apply this calculation to a sample(s):

1. Highlight the sample(s) to be adjusted, and right-click to view the menu options:

		Name D	escription	Туре	State
	S 0 07 07	-		Chandrad	Regular
	S 0	Open			Regular
	S 0	New Folder			Regular
	S 0 👼	New Schedule			Regular
	S 0	Descention		Chally D	Regular
	S 0	Properties		Ctrl+P	Regular
9	S 0	Dependencies		CUITE	Regular
9	S O	Rename Edit Description		Ctrl+N	Regular
	S 0 🗙	Delete		Delete	Regular
	S 0 🗸	Cut		Ctrl+Y	Regular
	S 0	Copy		Ctrl+C	Regular
	S 0 📋	Paste		Ctrl+V	Regular
	s 0 🖳	Make Sample			Regular
	S 0	Edit Gloss			Regular
	s o 🖵	Recalculate RGB			Regular
()	S 0	Offset		Ctrl+F	Regular
	S 0	Export to XML		Ctrl+E	Regular
	S 0	Export to QTX		Ctrl+Q	Regular
()	S 0510-0	Send to Paint Universal I	Database	Standard	Regular
()	S 0510-0	520Y		Standard	Regular
	S 0510-0	530Y		Standard	Regular
	S 0510-0	540Y		Standard	Regular
	S 0510-0	550Y		Standard	Regular

2. Select Recalculate RGB.

Enter Offset Matching Values

Offset values can also be set in Navigator. See <u>Offset Matching</u> for details regarding the configuration to enable this feature.

Before you begin, confirm that the offset values option is enabled in Admin and Job Preferences.

To enter matching offsets from Navigator:

1. Select a sample, and right click to view the menu. In this case, S 0300-N is the selected target.

	N	lame	Description	Туре	Sta			
	S 0300-N S 0500-N	S 0300-N Open With						
	S 0502-B S 0502-B5	Properties Dependent	Properties Dependencies					
	S 0502-G S 0502-G5	Rename Edit Descri	otion	Ctrl+N				
	S 0502-R5 S 0502-Y	Cut		Ctrl+X	_			
	S 0502-Y5	Paste	he	Ctrl+V	_			
<u> </u>	S 0505-B2	Show Asso Recalculate	ciated Batches RGB					
°	S 0505-B8 S 0505-G	Measurem Offset	ents	Ctrl+F	•			
<u> </u>	S 0505-G1 S 0505-G2	Export to X Export to C Send to Pa	ML ITX int Universal Datal	Ctrl+E Ctrl+Q pase				
	S 0505-G3			annan pen				

2. Highlight the Offset option.

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The offset dialog displays.

3. Click the radio button to select either a^*/b^* or C^*/h^* coordinates to be used for the offset.

📲 Offset — 🗆 🗙	🍡 Offset — 🗆 🗙
ΔL : 0.00	ΔL :0.5
 Δa*: 0.00 Δb*: 0.00 	 Δa*: 0.00 Δb*: 0.00
ΔC : 0.00 Δh : 0.00	Δ C : 0.00 Δ h : 0.00
Save Cancel	Save Cancel

- 4. Click Save.
- 5. In Formula Central, select the target color for which the offset values were stored. In this example, the target is S 0300-N

File View Go Instrument Tools He	elp												
🛃 📔 🎒 🛛 🕅 Page 1 🕞							B .	8 0	λ 👴	8	p]_	, d	네 🤣
- Target	CI	IELAB		L×	a×	Ь*	C*	h	CR	CF	FT	CR-	CR+
S 0300-N	📸 🗸 Ta	arget		96.22	-0.20	1.79	1.80	96.48	79.5000	~~ `	1.0000	79.5000	79.5000
NY 050 Da = 0.00 Db = 0.00	🕊 Of	ffset		96.72	-0.20	1.79	1.80	96.49					
	Fo	ormula									1.0000		
- Zirial													
🐔 🔹 🔹	💕 🗸 Si	ubstrate		95.55	-0.72	2.14	2.26	108.54					
-	-		← ^{DE*}	DL*	Da×	Db*	DC*	DH*	CDE	<u> </u>			
oo Substrate	à s												
Leneta -	1												
		8 sht 1 - 4	- DA		Appl	y DL*Da*D)b*/DL*D	C*DH* Off	set			(ROL
🔒 Formula 🛛 🚽 🕨		DEA: 🚺 💏	کی 🕈	CG								5	ROD
¥. •													

The offsets stored for the sample are displayed. On the Evaluation Window, the program prompts you to apply the offset.

6. Check the box to enable to offset, and execute the match. *See <u>Offset Matching</u> for an explanation of the results.*

Gamut Mapping

Gamut mapping is a tool for analyzing colors when no matches are found. Each colorant set has a gamut that is defined by the colorants in the set. The gamut is created by determining the color coordinates for each colorant, and plotting them in color space. The result plot is a 3-D solid.



All target colors with color coordinates that fall inside the solid can be matched with the colorants selected for the match. When a target plots outside of the gamut it cannot be matched with the colorant selection.

- If the match is not using all available colorants in the set, you can add/remove colorants to change the shape, size and orientation of the gamut. This may solve the problem when no matches are found.
- All colorants in the set are plotted even if they aren't included in the colorant selection.
- When all colorants are included in the selection, you must add new colorants to the set in order to match colors in an area falling outside the gamut.

The gamut mapping tool in Datacolor Match Pigment is accessed from Evaluation Window icon in Formula Central:

	Evaluation win	woh	icon —			+		N.	8		83	P	. 12	n N
Target					L*	a*	h×	-sav C×	h	CR	CF	FT	CR-	CR+
BAL1015-HR 01	/98 👻	672 -	Target		86.23	2.24	15.44	15.61	81.74	79.5000	~~~~	1.0000	79.5000	79.5000
			Formula		86.24	2.24	15.45	15.62	81.74	100.000	1.58	1.0000		
			Substrate		95.55	-0.72	2.14	2.26	108.54					-
	1000	6 7 -	Formula	DE*	DL*	Da×	Db*	DC*	DH*	CDE	MI			
and h			D65/10	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.54	1		
			A/10	0.39	0.00	-0.39	0.01	-0.09	0.38	0.01				
<u>S</u> ubstrate		à 2 -	F11/10	0.37	0.07	-0.33	0.16	0.13	0.34	0.01				
Leneta			D65/10											
Formula			A/10											
Vorschlag 4 RAL	1015-HR 01/98			🥹 📥	CG	•			Gam	ut Ma	atchi	ng op	otion	

Gamut Mapping Graphic

The gamut mapping tool is a 3-D graphic. The user can zoom in/out of a particular area of color space and/or rotate the graph to look at the gamut from different angles. These features are controlled using the mouse keys, and the keys can be used simultaneously.

- Right mouse button. Zooms the image.
- Left mouse button. Rotates the gamut through 3D color space.

Offset Matching

Offset matching is a powerful tool for reconciling the visual acceptability of a match with the calculated color differences. While color space maps are very useful in defining a target color and evaluating color differences in terms of distances on a map, equal distances between samples on a color space map do not always translate to equal visual differences. This is because visual color differences are not linear. As a result, color space maps are not completely uniform with respect visual evaluations.

For example, color differences that are due to lightness differences are typically less objectionable visually than are differences in hue or chroma. Working in an L*a*b* map, a DE of 1.0 between two samples may capture a shift along the lightness axis. In another case a DE of 1.0 between the samples may identify a shift along the a* axis (red/green) or b* axis (yellow/blue) A DE of 1.0 along the lightness axis may be acceptable visually, while a DE of 0.75 for a match to the same target may not be visually acceptable because the shift is along the a* or b* axis.

Offset matching was enabled in v 3.0. Below is an explanation of the configuration and results from the offset matching feature.

Enable Offset Matching

The default setting for offset matching is disabled. There are two settings that must be enabled to use offset matching. The option itself is enabled/disabled through the Admin program module. The offset values to be used can be entered either through Formula Central or directly from Navigator.

To enable Offset Matching,

- 1. Launch Admin and select View System Details, Colorimetry.
- 2. Click in the box to enable offset matching and click OK.

Ingred	lient System Settings					-		\times
						[~ 0	ж
44	Colorimetry 📑 Material Han	ding	lindustry	S User Defined Labels	🔰 Measurements		🗙 Car	ncel
	Default Color Eguation CIELAB L* a* b* C* h	•		Factors for CMC (t.c)	CE 1.0		? ±	elp
	 Enable Offset Matching (Cielab D) 	5/10 deg)		Factors for CIE94/2000	К<u>Н</u>: 1.0			
8	Default Illuminant/Observers		M	Color Display Options	Adaptation			
1	CIE Illuminant D65, 1964 Observer	-				-		
2	CIE Illuminant A, 1964 Observer	•						
<u>3</u>	CIE Illuminant F11, 1964 Observer	-						
<u>4</u>		•						
<u>5</u>		-						
<u>6</u> 2)	Decimal Places for <u>B</u> ecursive Sortin	g						

• You must restart DMP to see the change.

Enter Offset Matching Values Matching in Formula Central

After Offset Matching is enabled in System Admin, the user must enter specific offset matching values. These values are entered using either Formula Central/ Job Preferences or from directly from Navigator.

To enter offset matching values from Formula Central:

- Job Preferences Х h Results 💢 Tolerances 3. Search 赵 Appearance 🙏 Advanced Default Color Eguation Enable Offset Matching and CIELAB 1976 All • $\overline{\mathbf{v}}$ Save this change. 🔽 Use Offset Matching Optimum Film Thicknes 0.5 Maximum DE1 Opacity / Contrast Limits 1.0 Maximum DE2 + 0.00 _ 0.00 CB 90.0 Minimum CR Correction Add Limits 5.0 Maximum Metamerism 2.30 0.00 Correction DE Limit Always show best prediction None - Ignore Bucket Capacity C Bucket Capacity 200.00 milliliters Illuminant/Observer conditions for matching ∇ 1 D65/10 • Bucket Capacity Form A/10 Ready ∇ • 2 ¥> F11/10 • 3 Instead of Excessive Additions: • Reduce Correction Quality 4 -C Remove Partial Batch <u>5</u> Job Template - 6 ?<u>H</u>elp 🗙 Cancel 🗸 ок Product Line
- 1. Navigate to Job Preferences/Tolerances.

Offset matching tolerance fields will display in Formula Central:

창 Formula Central - Auftrag 475 RAL1000-HR 01/98 Fro	m White Base		- 🗆 X
File View Go Instrument Tools Help			
🌄 📔 🎒 🗍 🎦 Page 1 🔹		📐 🗛 % 🔍 💊) 😵 🥐 🚔 🖉 🦉 🖉
Paget RAL1000-HR 01/98	CIELAB	ь" С* h СВ	CF FT CR- CR+ 1.0000 79.5000 79.5000
DL* 0.00 Da [×] ▼ 0.00 Db [×] ▼ 0.00 ◆	Offset tolerand	e fields.	1.0000

2. Enter an offset value for 1-3 coordinates.

Formula Central - Auftrag 475 RAL1000-HR 01/98 From V	Vhite Base	- 0 X
File View Go Instrument Tools Help		
🔄 📝 🎒 🗋 🎦 Page 1 🕞	📐 🖳 🗞 🔍 💊 👸 🦨)
Enter offset values to be used in these fields.	CIELAB L* e* C* h CR CF F Target 76.78 -0.35 26.22 26.22 90.76 79.5000 1. Offset 76.88 -0.05 26.22 26.22 90.10 1. A new "Offset" field is displayed in the Evaluation window.	FT CR- CR+ 0000 79.5000 79.5000
E Formula		

In this example, a variation is acceptable on the L* and a* values. . In this example, an offset value of .1 L* and .3 a* were entered. The program interprets this input as \pm .1 L* and \pm .3a* respectively. For this target color, a variation is acceptable only on L* and a#.

Enable Offset Matching in Navigator

Offset values can also be set in Navigator. See <u>Navigator, Offset Matching Values</u> for details.

Offset Formula Results

Below is a comparison of the formula with and without offsets applied to the job tolerances.

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		Page 1	•									85	入 9 词	0	P i	ି 🎽	2	Q
	Target				CIELAB			L×	a×	Ь×	C*	h	CR	CF	FT	CR-	CR+	
.0	RAL1000-	HR 01/98		· 62.	Target			76.78	-0.35	26.22	26.22	90.76	79.5000		1.0000	79.5000	79.500	D
					Formula			76.78	-0.34	26.22	26.22	90.75	100.000	1.24	1.0000			
					Substrate	5		95 55	-0.72	214	226	108 54						
-2	Irial			622 -	Formula	-	DE*	DL*	Da×	Db*	DC*	DH*	CDE	MI				
				· •	D65/10		0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.20				
					A/10		0.31	0.00	0.23	-0.21	-0.19	-0.25	0.01					
					F11/10		1.16	-0.31	1.02	-0.47	-0.53	-0.99	0.01					1
	Substrate			- 627 -														f.
Y /	Leneta				D65/10													1
					A/10		E.											1
9	Formula		•	► []	F11/10													1
5	Vorschlag	1 RAL1000-HR 01/98		- 17														
					[+													
8				@ ##														
	1	BLACK		2	43 Sh	-												
	1	OXYEL		28.	90 Sh	•												
	1	YEL (R)		44.	07 Sh	•												
	1	WHITE		86.	95 Sh	•												
	1	м		1461.	04 Sh	•												
HΣ		Total Base		900.	00 ML	-												
Σ		Total Batch		1000.	00 ML	-												

Match without Offsets

Match with Offset Values

r	i 🗐	Page 1	•								4	83) 아	0	P	- 🅍	提。	۸
	Target				CIELAB			L×	a×	Ь×	C*	h	CR	CF	FT	CR-	CR+	
.0	RAL1000	HR 01/98	•	Ġ и -	Target			76.78	-0.35	26.22	26.22	90.76	79.5000		1.0000	79.5000	79.5000	
	0.1				Offset:			76.88	-0.05	26.22	26.22	90.10						
DL*	0.1				Formula			76.88	-0.04	26.22	26.22	90.10	100.000	4.45	1.0000			
	Trial																	
4	Tuar			1	Substrate			95.55	-0.72	2.14	2.26	108.54						
					Formula		DE*	DL×	Da×	Db×	DC*	DH×	CDE	MI	-			
					D65/10		0.32	0.10	0.30	0.00	0.00	-0.30	0.01	2.33]			
	C. J			20	A/10		0.47	0.17	0.35	-0.27	-0.23	-0.37	0.01					
\bigotimes	5ubstrate			- 22	F11/10		2.04	0.35	-1.89	0.69	0.89	1.80	0.01					
×/	Leneta		•	-														
F	ormula		4.5		D65/10									lor d	liffer	ence	is lar	Jer
9 `	<u>o</u> maid		4 10		A/10													
~ •	Vorschlag	3 5 RAL1000-HR 01/9	8 🔻	101	F11/10								bu	it ma	ay stil	l be v	isual	ly
					1								ac	cent	able			
														cept	abiei			
83	•			0 ##														
						_												
_	1	GREEN		19.2	7 Sh	•												
	1 1	GREEN OX RED		19.2 0.2	7 Sh 4 Sh	÷	6	- 1	امد	י:דר	t f	- 14 10						
	1 1 1	GREEN OX RED OX YEL		19.2 0.2 58.9	7 Sh 4 Sh 2 Sh	•	Co	mple	tely o	differ	ent f	ormu	ıla.					
	1 1 1 1	GREEN OX RED OX YEL WHITE		19.2 0.2 58.9 83.9	7 Sh 14 Sh 12 Sh 11 Sh	• • •	Co	mple	tely (differ	ent f	ormu	ıla.					
	1 1 1 1	GREEN OX RED OX YEL WHITE M		19.2 0.2 58.9 83.9 1461.0	7 Sh 4 Sh 2 Sh 1 Sh 4 Sh	• • •	Co	mple	tely (differ	ent f	ormu	ıla.					
θΣ	1 1 1 1	GREEN OX RED OX YEL WHITE M Total Base		19.2 0.2 58.9 83.9 1461.0 900.0	7 Sh 4 Sh 2 Sh 1 Sh 4 Sh 0 ML	•	Co	mple	tely (differ	ent f	ormu	ıla.					

• To view the calculated color difference between the offset standard and the formula, place a check in the *Apply checkbox to display the adjusted DE*.

_	Target		CIELAB		L×	a×	Ь×	C×	h	CR	CF
	RAL1000-HR 01/98	â 7 -	Target		76.78	-0.35	26.22	26.22	90.76	99.0000	
D.			Offset:		77.78	-0.35	26.22	26.22	90.76		
UL			Formula		77.77	-0.35	26.21	26.21	90.76	100.000	1.79
	Trial	*7									
4		1	Substrate		95.55	-0.72	2.14	2.26	108.54		
			Formula	DE*	DL×	Da×	Db*	DC×	DH×	CDE	MI
			D65/10	0.99	0.99	0.00	-0.01	-0.01	0.00	0.00	1.16
	0 • • • •	20	A/10	1.02	0.99	0.16	-0.16	-0.14	-0.17	0.00	
	Substrate	1	F11/10	1.30	0.69	0.98	-0.51	-0.57	-0.94	0.00	
×/	Leneta 🔹	-									
	Family and		D65/10								
9		[·]	420								
44	RAL1000-HR 01/98 -		8499 I 🔳 🛃	•	CG	🔲 Appl	y DL*Da*D)b*/DL*D(C*DH* Offs	:et	

The adjusted DE is the difference between the projected "offset" standard and the predicted formula.

_	Target		CIELAB		L×	a×	Ь×	C×	h	CR	CF
	RAL1000-HR 01/98	6 7 -	Target		77.78	-0.35	26.22	26.22	90.76	99.0000	~~~~
D.			Offset:		77.78	-0.35	26.22	26.22	90.76		
UL			Formula		77.77	-0.35	26.21	26.21	90.76	100.000	1.79
	Trial	+0									
4		- 🜠 -	Substrate		95.55	-0.72	2.14	2.26	108.54		
-			Formula	DE*	DL*	Da×	Db*	DC*	DH×	CDE	MI
			D65/10	0.01	-0.01	0.00	-0.01	-0.01	0.00	0.00	1.09
	C	20	A/10	0.16	-0.01	0.10	-0.12	-0.11	-0.11	0.00	
	Substrate	- 😥 -	F11/10	1.09	-0.29	0.91	-0.51	-0.56	-0.88	0.00	
×/	Leneta	-									
	Formula		D65/10								
9.			1.11.0								
~	RAL1000-HR 01/98		64 La 🗧)	CG	🔽 Appl	y DL*Da*[)b*/DL*D(C*DH* Off:	sel	

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Offset Matching Notes

- The offsets are applied only to the CIEL*a*b 1976, with D65/10° Illuminant/Observer condition selected. They cannot be used with a different color equation or a different Illuminant/Observer selection.
- The set of coordinates available are determined by the CIELab color difference equation selected in the job template. When CIELAB 1976 is enabled, the user can store offsets for either DL*, Da*, Db* or DL*, DC* or DH*.

1	ר Results	🏠 Tolerances
	Default Color Egu CIELAB 1976 A Vise Offset M	atching



System Requirements

Below are the minimum system requirements to run Datacolor Match Pigment v 4.0:

Component	Minimum	Recommended Minimum					
	(Stand Alone)	(Stand Alone)					
Processor	1 GHz 32-bit (x86)	2GHz Dual Core					
Memory	8GB RAM	8GB RAM					
Free Hard Drive	500 GB	500 GB					
Video Resolution	1024 X 768 16-bit	1024 x 768 True Color					
DVD Drive	DVD Reader	DVD Reader					
Available Ports	(1) USB/ (1) Serial Port	(3) USB/ (1) Serial Port					
Printer Port	USB or Parallel	USB or Parallel					
32- Bit Operating System	Windows [®] 7	Windows [®] 7, Windows [®] 8.1 Windows [®] 10					
64-Bit Operating System	Windows [®] 7	Windows [®] 7, Windows [®] 8.1 Windows [®] 10					

Notes:

1. Datacolor spectrophotometers use either an RS-232 Serial or USB connectors

2. For Terminal Server setup, please refer to Terminal Server – Software and Hardware Requirements document.