

USER'S GUIDE

www.datacolor.com

	Name	Strength	d5
Recipe Calc			
1	Brilliant Yellow 4 GL Gran	100	6.0
50	Yellow GR	100	
	Yellow R Gran	100	
	Golden Yellow RNL gran 150%	100	

MATCH TEXTILE
 Measure color by eye then
 analyze by spectrophotometer
 to determine colorant
 quantities for dyeing or
 printing on fabric



MATCH +
 Screen design. For
 faster coloration view
 comparison and copy
 ing on the use of
 electronic color

Preface

Datacolor MATCH^{Textile} TM

User' Guide

english

Version 1.0

February 2005

All efforts have been made to ensure the accuracy of this Guide. However, should any errors be detected, Datacolor would greatly appreciate being informed of them.

Changes are periodically made to the information and will be incorporated in new editions of the guide.

Datacolor reserves the right to make improvements and/or changes in the product(s) and/or program(s) described in this guide at any time.

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1

About

About this Guide

Who Should Use this Guide?

This is the Datacolor MATCH^{Textile} User's Guide. It is to be read by users of the Datacolor MATCH^{Textile} system, who need to know how to begin using the programs. Once you are familiar with Datacolor MATCH^{Textile}, this guide provides a reference to help you carry out specific tasks using the system. This guide assumes you are familiar with Microsoft Windows.

How to Use This Guide

This guide is divided into the following main chapters:

	Preface	Edition, copyright and trademarks, important addresses.
	Contents	Table of contents.
1	About	Information about this guide.
2	Overview	Overview of the relationships between the specifications needed for matching.
3	Installation	Installation description for Datacolor MATCH ^{Textile} .
4	Configuration and Administration	Configuration and administration of Datacolor MATCH ^{Textile} .
5	Using Datacolor MATCH^{Textile}	This chapter provides you with the basic information you need to start and use the system. A step by step description shows you the specification of the basic data and the calculation and correction of recipes.
6	Maintenance and Error Handling	Maintenance of the spectrophotometer, the database and error handling.
7	Windows and Dialog Boxes	Description of the windows and dialog boxes with their parameters. In Chapter 3 Installation , Chapter 4 Configuration and Administration and Chapter 5 Using Datacolor MATCH^{Textile} , some dialog boxes are described in connection with their use.
8	Glossary	Explanation of specific terms used in this guide.
9	Index	The index should help you to find the descriptions you need.

Type Styles and Symbols

The following type styles and symbols have been used in this guide:

- References to other chapters and sections of this guide are shown in italics, e.g., Refer to *General Table Functions*.
- Screen texts (window titles, parameter names, etc.) are written between double quotes, e.g., "Explorer" window.
- If a user action is requested, menu functions or button names are highlighted in bold, e.g., Click **Save**.
- A note is used to draw your attention to additional useful information, e.g.:

**Note:**

Leave the spectrophotometer to warm up for a few minutes. Datacolor recommends that for the greatest accuracy you should wait thirty minutes before calibrating.

- A caution symbol is used to draw your attention to potential hazards, e.g.:

**Caution**

An alteration of these parameters can interrupt the communication between the PC and the spectrophotometer.

2

Overview

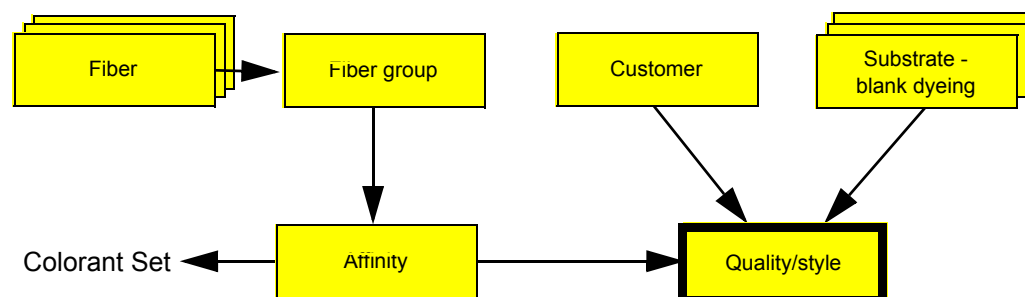
Basic Data

The basic data application is used to manage basic data, e.g., substrates, dyestuffs, auxiliaries, etc.

Quality/Style

Quality/style is a summary of all data in relation to the substrate and contains:

- Quality/style and substrate
- Affinity (quality/style subgroup)
- Fiber group
- Fiber
- Customer
- Substrate - blank dyeing



Fiber Definition of all single fibers to be dyed.

Fiber group Definition of all fibers used for a quality/style. A fiber group can be a single fiber or a combination of different fibers, e.g., PES, PES/CO.

Affinity Definition of a link to a fiber group and the part of each fiber in%, e.g., PES = 60%, CO = 40%. Used for the relationship to the colorant set.



Note

The affinity is used to group qualities/styles. Qualities/styles linked to the same affinity should have the same dye behavior or should be dyed with the same combined process.

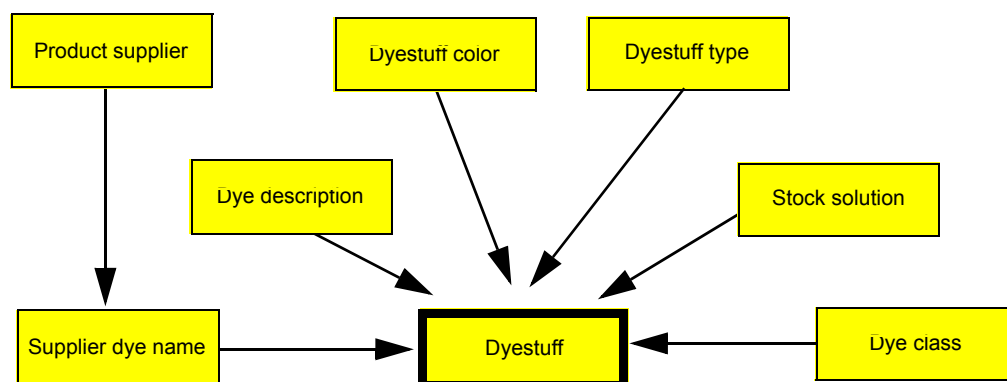
Customer A customer may be assigned to each quality/style.

Substrate - blank dyeing Reflectance measurement of the substrate and quality/style effect factor.

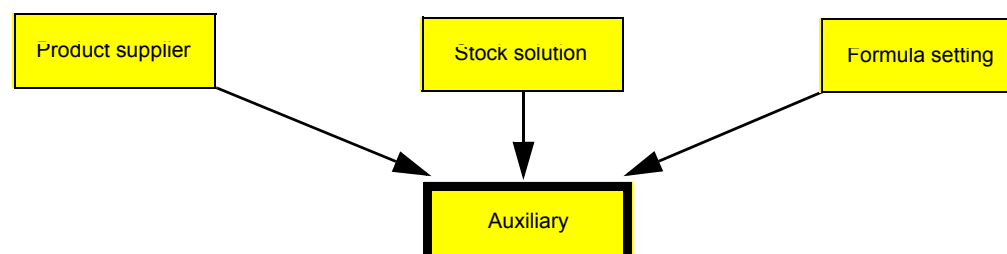
Product

A Product is either a dyestuff or an auxiliary.

Dyestuff



Auxiliary



Product supplier	Supplier-specific data, e.g., name, address, phone number.
* Supplier dye name	Dye name of the supplier, e.g., Remazol, Terasil, etc.
Stock solution	Definition of different dilutions used for optimizing the accuracy of manual dyestuff pipetting and to prevent that the maximum of the dye solution is to be exceeded.
* Dyestuff type	Type of the delivered dyestuff, e.g., conc., gran., supra.
Dye class	Classification of dyes according to the chemical composition and reaction, e.g., disperse, reactive.
* Dye description	Additional description of the dye, e.g., brilliant, dark.
* Dyestuff color	Color names, e.g., red, green, blue.
Formula setting	Settings for recipe calculation used for production, e.g., default unit.
* Supplier dye name, dyestuff type, dye description, and dyestuff color can be used to compose the product name.	

Customer

A customer delivers the substrate and orders the dyeing. It is assigned to the quality/style.

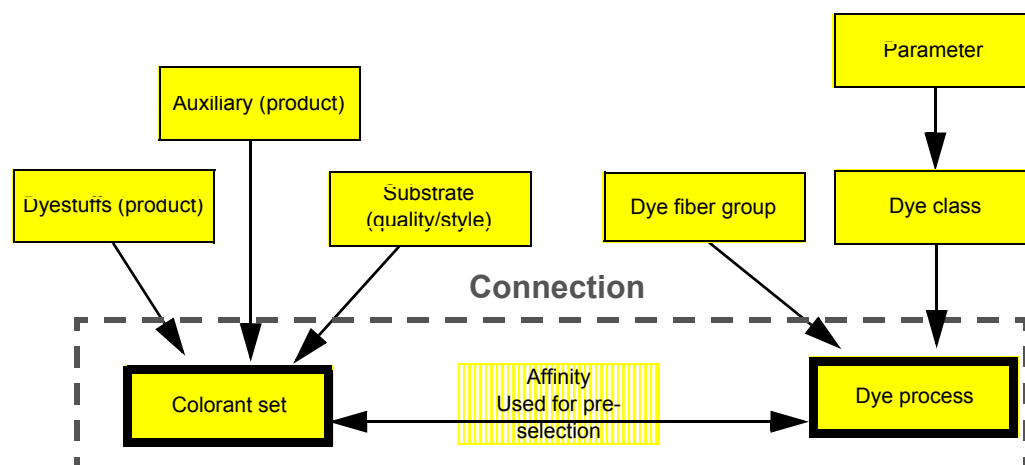
Color Type

Measured color pattern. A color type is substrate-independent.
A color type is a standard and can be linked to a recipe.

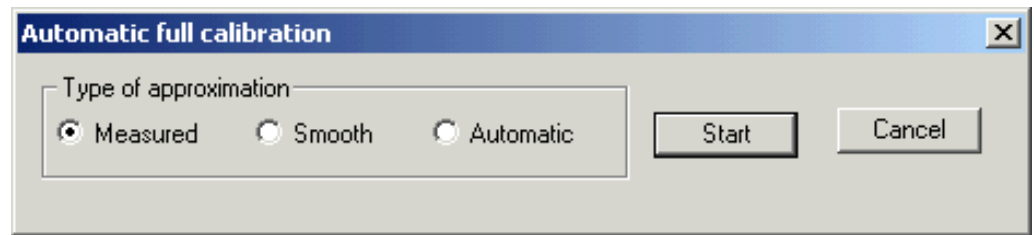
Colorant Set

A colorant set is a set of color information about the substrate and dyes the system uses to produce match and correction recipes. It contains ...

- information about the overall colorant set, e.g., the substrate and process that will be used with the dyes;
- product information about each dye, e.g., strength, minimum and maximum concentration;
- color information about each dye.



Calibration methods

**Measured (default)**

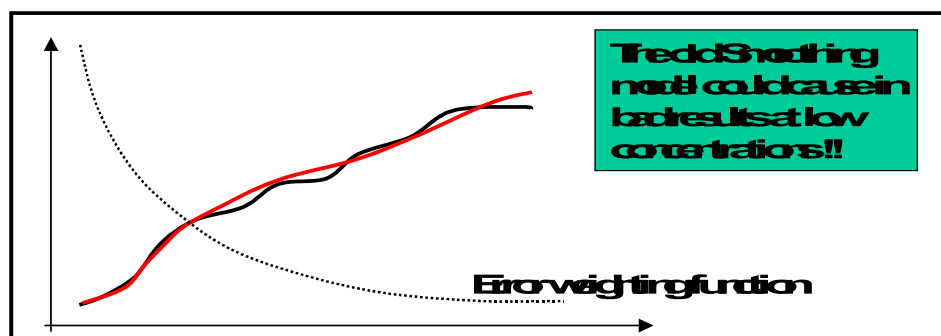
The calculated absorptions are the same as the measured absorptions. The calculated dye concentrations meet all measured dye concentrations. All dEs are zero.

Smoothed

Adjusts the dye concentrations for larger variations in dye strength.

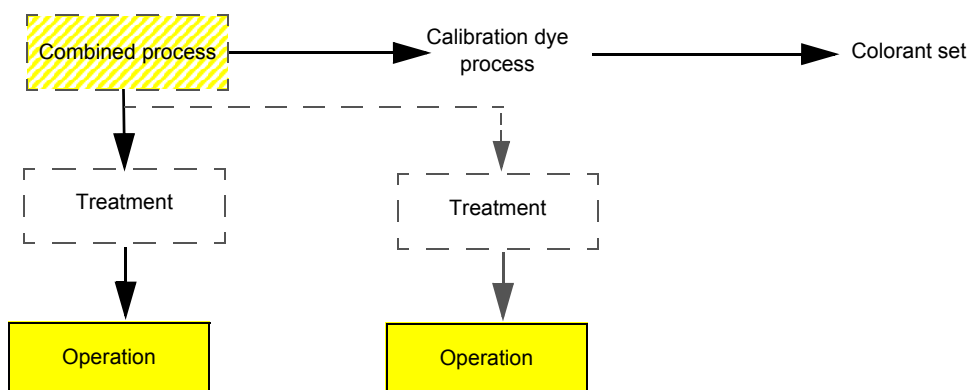
Automatic

Normally, the "Measured" method is better for low concentrations and the "Smoothed" method for high ones. The automatic method transits continuously from "Measured" to "Smoothed."



Combined Process

The user has to define combined processes and operations.



Combined process

A combined process is used to describe the entire dyeing process either for laboratory or production. A treatment is generated for each calibration dye process type (e.g., Exhaust, Continuous,) linked to the combined process.

Treatment

A treatment consists of one or more operations describing the dyeing process for laboratory and/or production.

Operation

The operation specifies the sequence of action to be done during the dyeing. Actions may be parameters (e.g., temperature, volume), or products (e.g., chemicals, etc.).

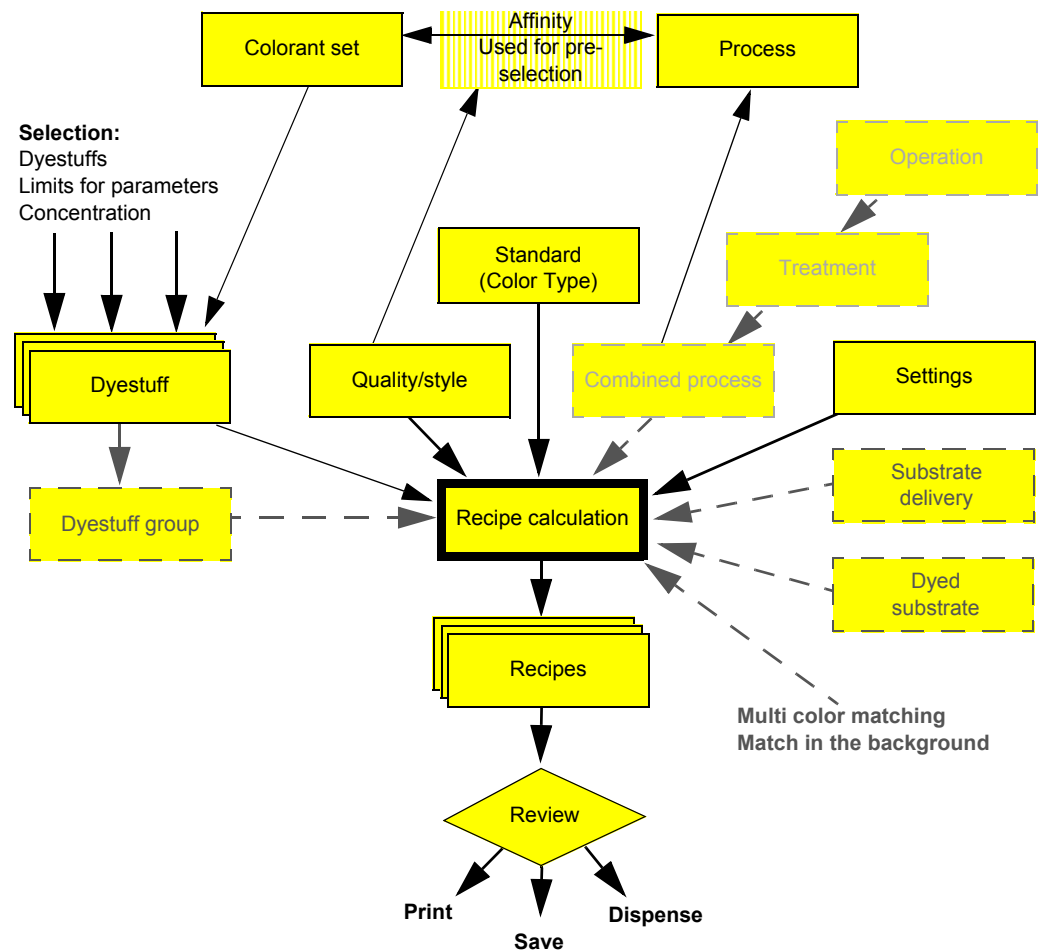


Note

If Datacolor Process is not installed,

- only one operation is possible for each treatment;
- the operation supports XY-tables (decision tables) and fixed parameter values only.

Recipe Calculation (Matching)



Selection:

- Quality/style (data of the substrate)
- Combined process
- Substrate delivery (only for deliveries with data different to the blank dyeing substrate)
- Dyed substrate (over-dyeing only)
- Dyestuff group with dyes pre-selected from the assigned colorant set. The dyestuff group is used to optimize the recipe calculation.

Selection criteria:

- Dyes from the list
- Parameter values, e.g., fastness information
- Concentration values, e.g., min., max., conc.
- Settings (parameters for calculation control)
- Standard: Color to be matched.

Match:

The recipes are calculated according to the selections and the results are displayed.

Review:	The recipes can be reviewed according to the different criteria (various color difference values, coordinates, price, etc.)
Further use:	The recipes can be saved, printed and/or sent to a dispenser.

SmartMatch

The SmartMatch facility is used to improve first-time matching and correction. Standard color prediction uses the Kubelka-Munk theory, which assumes that dyes behave in the same way when used together or stand-alone. However, this is not the case: dyes interact with one another. The SmartMatch facility overcomes this problem by taking into account the performance of previous predictions, e.g., learning by experience.

SmartMatch stores information about the concentrations used to dye a sample and the results of dyeing, and uses this data to correct the first attempt made by Kubelka-Munk calculations in future matching. It stores information about previous predictions as SmartMatch points.

Once you set your system to SmartMatch, it runs automatically. However, you can also examine the SmartMatch points the system is using and alter them to refine SmartMatch performance. For example, if you suspect that one of the SmartMatch points being used is based on a bad dyeing, you can remove this point. As result, it will no longer be used in the calculations.

The number of similar points is reduced by grouping them. In addition to the automatic SmartMatch housekeeping, a powerful graphical tool supports the checking of the SmartMatch population for SmartMatch points to be deleted or grouped.

All recipes calculated using the "Match" option will use SmartMatch when SmartMatch is turned on and when relevant populations are available. The number of SmartMatch points used in a recipe calculation are shown at the bottom of the dye concentration column in the recipe table.

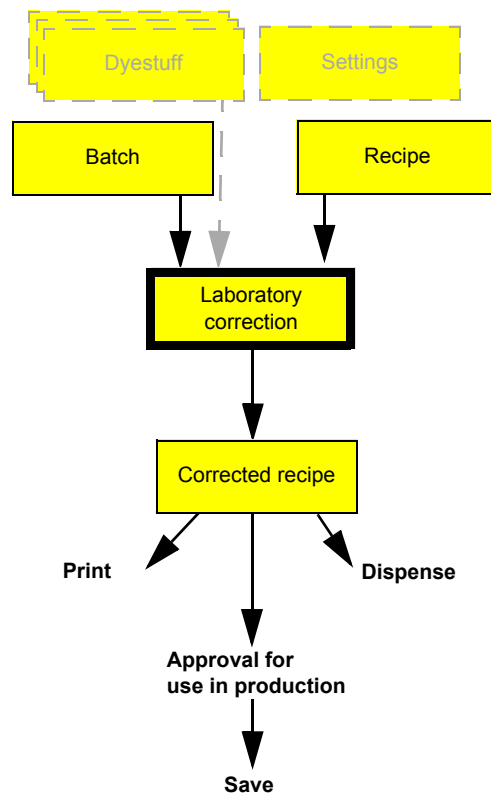


Note

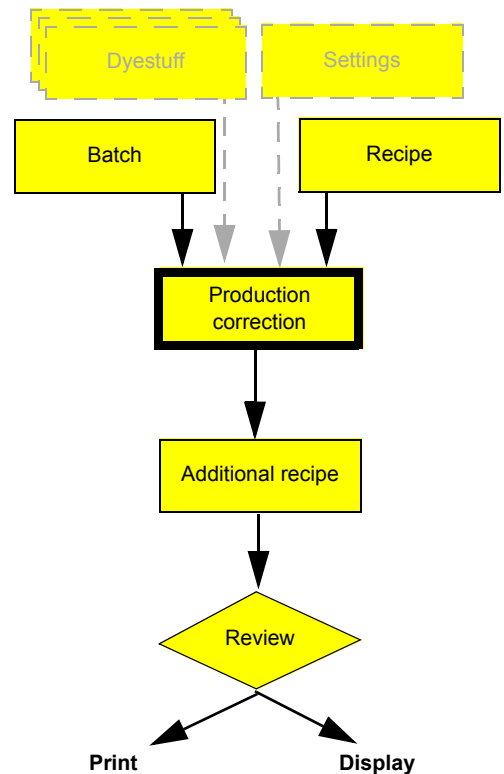
You can still store SmartMatch points for later use, if the SmartMatch facility is switched off.

Correction

Laboratory correction



Production correction



Selection of correction type:

- Laboratory The existing recipe is altered and saved again.
- Production An additional recipe is calculated, that is used to change color of the dyed batch to the correct color.

Data input:

- Recipe to be corrected
- Batch (color of the dyed substrate to be corrected)
- Dyestuffs are pre-selected by the recipe to be corrected. Additional dyestuffs can be selected. Concentration and parameters can be defined.
- The acceptance limit settings can be altered.

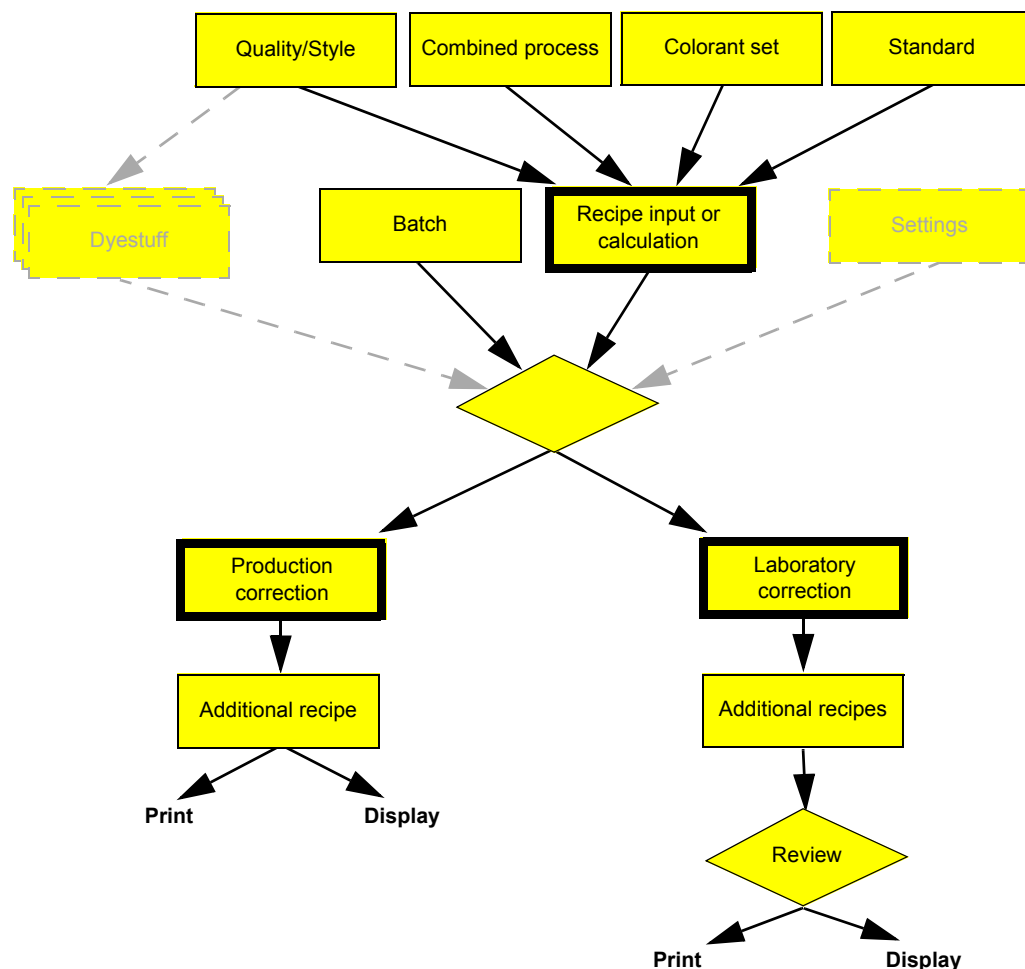


Caution!

A production correction is not saved. It must be printed before closing the "Production Correction" dialog box. Otherwise, the recipe will be lost.

Fast Correction

The “Fast Correction” function is used for production or laboratory corrections without an existing recipe. It is based on a theoretical calculated recipe of the standard or a recipe typed in manually. This task is mainly used for production correction.



Data input:

- Quality/style, combined process, colorant set, and standard.
- Batch (color of the dyed substrate to be corrected)
- Dyestuffs must be selected. Concentration and parameters can be defined.
- The acceptance limit and color difference equitation settings can be altered.
- The recipe can be entered manually or a theoretical recipe can be calculated.



Caution!

Only fast corrections of laboratory recipes can be saved. Fast corrections of production recipes must be printed before closing the “Production Correction” dialog box. Otherwise, the recipe will be lost.

Input of SmartMatch Points

The “Fast Correction” function can be used for entering SmartMatch points.

3

Installation

Supported Operating Systems

Workstations

Windows XP Professional

Windows 2000 Professional

Windows NT 4.0, service pack 4 or higher

Windows 98 **Not recommended!**

Server

Windows XP Server

Windows NT Server, service pack 4 or higher

Windows 2003 Server

Installing Datacolor MATCH^{Textile}

Action	Result
1 Insert the Datacolor MATCH ^{Textile} compact disc into the CD-ROM drive. If the installation does not start automatically, select Run on the Windows start menu, type <drive ID>:\setup (<drive ID> : is the identification of the CD-ROM drive, e.g., D:) in the "Open" field of the "Run" dialog box, and click OK .	The installation program starts automatically.
2 Follow the advice of the installation program.	



Note

After installation, the software runs in the demonstration mode and must be validated. Refer to [New Installations on page 3-4](#).

Updating Datacolor MATCH^{Textile}

For the installation of an upgrade, refer to the installation description of the update and to [Installing Datacolor MATCH^{Textile} on page 3-2](#).



Caution!

- ***The database is upgraded by the update program. But, it is strictly recommended to back up the database before updating. Otherwise, for some versions of the program the database could be deleted and lost.***



Note

- If an old DCIMatch, SmartSort, CentersideQC or Fibramix program is updated to one of the new Spectrum Textile software products, the old software is removed during the installation of the new Spectrum Textile products like Datacolor MATCH, Datacolor SORT.
- If the software security key is not accepted after updating the software runs in the demonstration mode and must be validated. Refer to [Existing Installation on page 3-5](#).

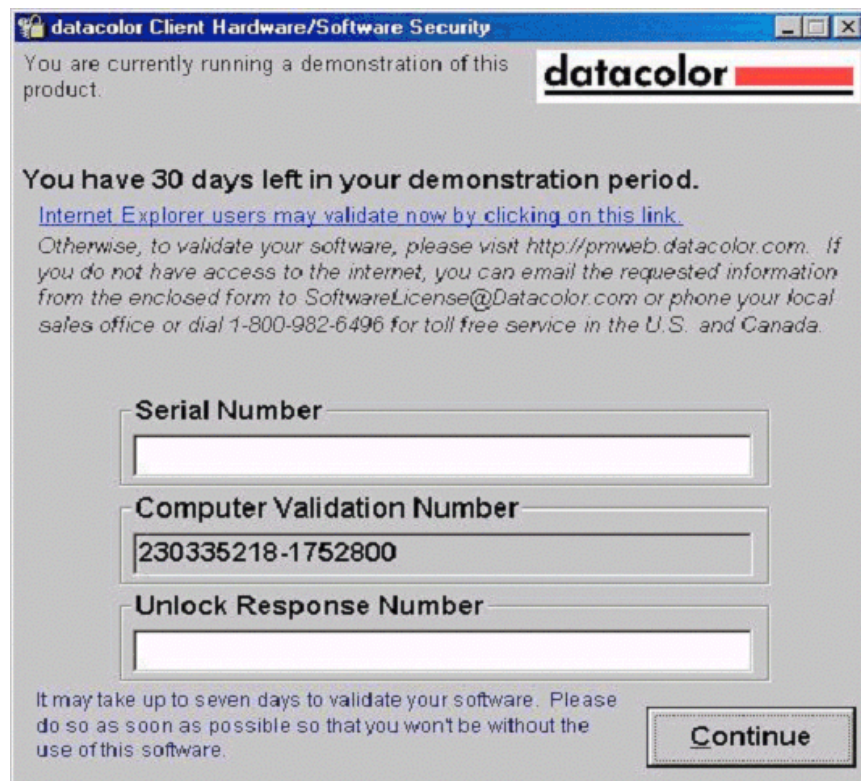
Datacolor Security System

A new Software/Hardware security system replaces the old software protection provided by the green parallel port security key.

New Installations

New purchases receive a sticker containing their serial number. This is typically found on the corner of the jewel case.

The software can be installed normally. After installation and if the software is running for the first time, the following dialog box appears:



From the date of the first use, you have 30 days to validate the software. (Any attempt to change this system date will immediately end the demonstration period.)

- 1 During this period, press the **Continue** button to start the software in demonstration mode. It is possible that not all features will be available while in the demonstration mode.

The users should validate their software as soon as possible, as it may take up to seven days to do so.

- 2 Visit <http://pmweb.datacolor.com>, call the local sales office, the Lawrenceville or Dietlikon call centers or mail the necessary information to Datacolor (SoftwareLicense@Datacolor.com) using the validation instruction sheet provided with the software.

Existing Installation

If you already have one of the following Datacolor software packages: Datacolor MATCH^{Textile}, MatchExpress, or Datacolor Process, that run using a green software security key and receive an upgrade due to an upgrade purchase or a software maintenance agreement that does not require re-licensing, your software will run as before. Continue to use the green software security key.

What Happens if the Software Security Key Stops Working?

If the software security key fails to work for any reason, the software will be converted to the fourteen days demonstration period. The user then has two options:

- First, check the software security key and make sure that it is still properly attached to the system. If not, reattach it and the software should run normally.
- If it is attached and still fails to respond, the software security key may have failed. Use one of the methods listed in the [New Installations](#) section to contact Datacolor for validating the software using the software security component.

What Happens if the User Changes Computers?

If the user needs to change computers, the software will need to be re-validated. Simply follow one of the procedures listed in the [New Installations](#) section to contact Datacolor with an explanation of why you need to re-validate your software. The validations will be tracked in the Datacolor network to detect any abnormalities and protect the value of your software purchase.



Note

In this case, the website will not directly validating the user's software, but an email will be generated for a validation request.

Upgrading Your Purchase

Some software packages offer the ability to upgrade the user's purchase level. Using the software security model, it is now easier for users to upgrade their purchase if they want a higher level of software or a new feature module. Simply contact your sales representative to make the purchase. You will be issued a new serial number and a new validation number for your computer. That enables you to run the new features.

Removing Datacolor MATCH^{Textile}

	Action	Result
1	On the Windows desktop, double-click the My Computer icon.	The "My Computer" dialog box appears.
2	Double-click Control Panel	The "Add/Remove Programs Properties" are opened.
3	Double-click Add/Remove Programs .	The "Add/Remove Programs Properties" are opened.
4	Select "Datacolor MATCH ^{Textile} ", click Add/Remove , and confirm the removing.	Datacolor MATCH ^{Textile} is removed.
5	If Sybase is not used again (,e.g., for Datacolor Process,) it can also be removed.	

4

Configuration and Administration

User Administration

Specifying, Modifying and Deleting User's Data

**Note**

Only the user "DCI" can specify and modify user's data.

	Action	Result
1	On the Tools menu, select User Manager - User Administration .	The "User Administration" dialog box appears.
2	In the "User's List," select a user, and click: Add to specify a new user; Remove to delete of a user's data. Rename to rename a user;	Add: The "Add a New User" dialog box appears. Insert name and password, and click OK . Remove: The user data is removed after confirmation. Rename: The "Rename a User" dialog box appears. Specify the new name, and click OK .
3	If finished, click Close .	The "User Administration" dialog box is closed.

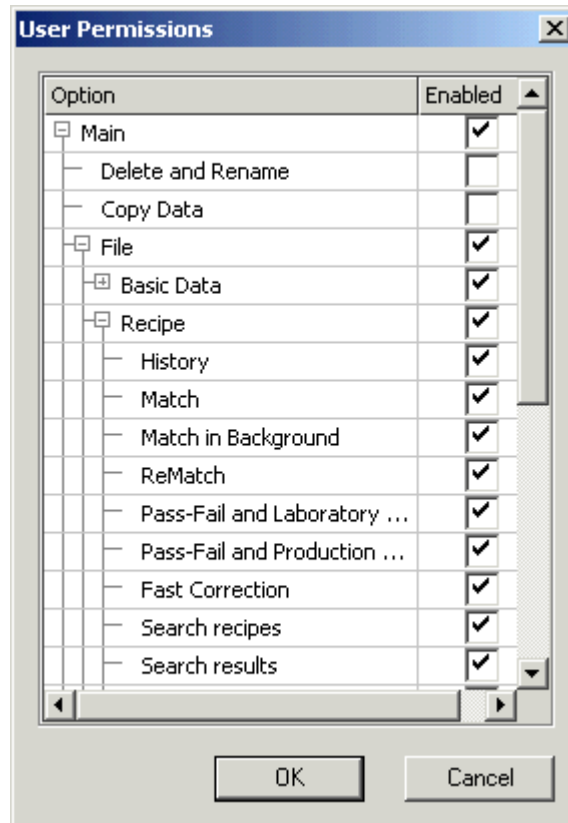
Changing the Password

**Note**

The user „DCI“ cannot be deleted and has all access rights. These rights cannot be modified.

	Action	Result
1	On the Tools menu, select User Manager - Change Password .	The "Change Password" dialog box appears.
2	Insert the old and new password, and confirm the new one.	
3	Click OK .	The password is changed.

Access Rights



	Action	Result
1	On the Tools menu, select User Manager - User Administration .	The "User Administration" dialog box appears.
2	Select the requested user and click Permissions .	The "User Permissions" dialog box appears.
3	Set the permissions and click OK .	The "User Permissions" dialog box closes.
4	In the "User Administration" dialog box, click Close .	The "User Administration" dialog box closes.

Available options



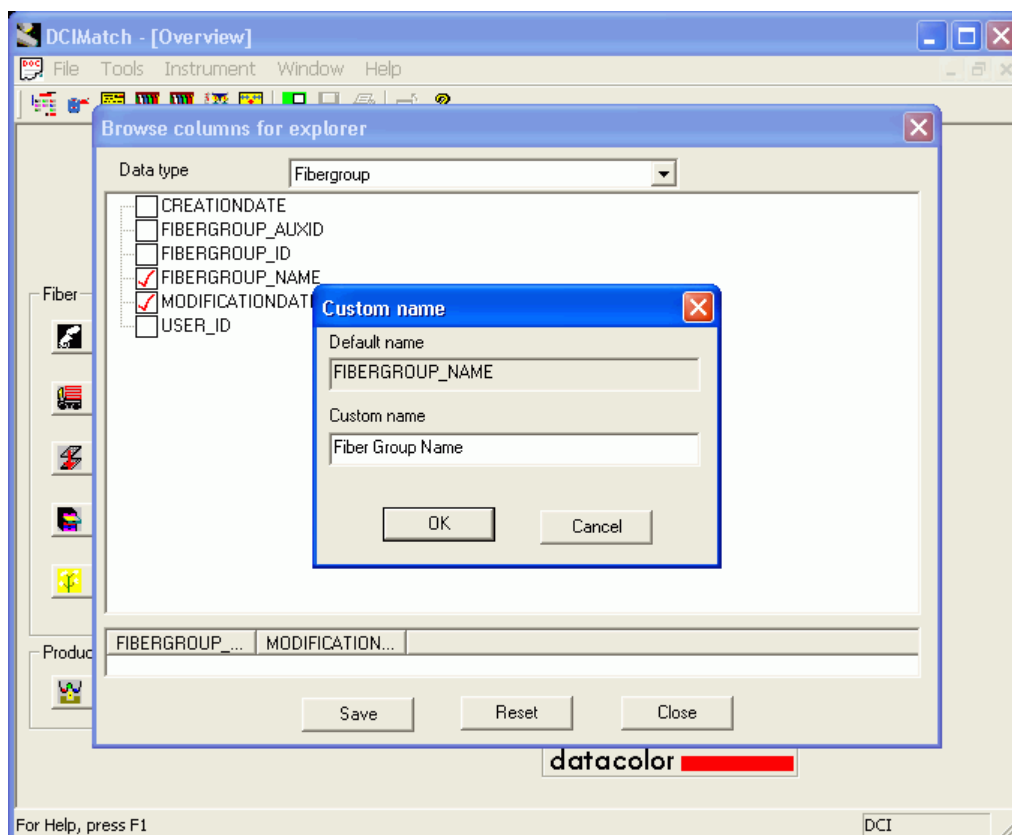
Note

The setting of a user right is valid for all attached rights at lower levels.

Level	Lower Levels Included	Option
0	+	Main
1		Delete and Rename
1		Copy Data
1	+	File
2	+	Basic Data
3		Product
3		Quality/Style
3		Dye Process
3		Customer
3		Color Type
3		Parameter Definition
3		Tolerance
3		Combined Process
3		Operation
3		Sample
3		Fiber
3		Fiber Group
3		Affinity
3		Substrate Delivery
3	+	Browse Data
4		Illuminant List
4		Sample List
4		Color Type List
4		Tolerance List
4		... (refer to menu „Basic Data“)
3		Display
3		Print
3		ASCII Output
2	+	Recipe
3		History
3		Match
3		Match in Background
3		... (refer to menu „Recipe“)
2	+	Colorant Set
3		Colorant Set Calibration

Level	Lower Levels Included	Option
3		Colorant Set
3		Display
3		Print
2	+	SmartMatch
3		<i>All menu options of SmartMatch</i>
2	+	Batch Series
3		<i>All menu options of SmartMatch</i>
2		Send Mail
2		Scan Mail
2	+	Production
3		Dye Lot
3		Production Recipe
3		Administration
1	+	Tools
2		Tool Bar
2		Status Bar
2	+	User Manager
3		Change Password
3		User Administration
2		... (Refer to menu „Tools“)
2	+	Options (exception: dialog tabs)
3		View
3		Dispenser
3		Stock Solution
3		Unit Selection
3		Print
2		Import
2		... (Refer to menu „Tools“)
1	+	Instrument
2		<i>All menu options of Instrument</i>

Browser Customizing



You can select the table columns to be displayed as follows:

Action	Result
1 On the Tools menu, select User's Browser Definition .	The "Browse Columns for Explorer" dialog box appears.
2 Select the data type (table).	The related data tree is displayed.
3 Check the boxes, the table columns have to be displayed.	In the footer of the dialog box, the checked table column titles are displayed.
4 Click Save .	The settings for the selected table are saved.
5 Repeat steps 3 and 4 to display other table columns. Repeat steps 2 to 4 to alter the display of other tables.	
6 Click Close to close the "Browse Columns for Explorer" dialog box.	



Note

The **Reset** button deselects all table columns except the object name. It is used if the performance of displaying is not acceptable.

You can alter the column titles of the tables as follows:

	Action	Result
1	On the Tools menu, select User's Browser Definition .	The "Browse Columns for Explorer" dialog box appears.
2	Select the data type.	The related data tree is displayed and the checked table column titles are displayed in the footer of the dialog box.
3	A double-click in a table column title opens the "Custom Name" dialog box.	Refer to the figure on the previous page.
4	Specify the custom name, and click OK .	The table column title is altered.
5	Repeat steps 3 and 4 to alter other table column titles.	
6	Click Save .	
7	Click Close to close the "Browse Columns for Explorer" dialog box.	

Using the mouse, you can change the sequence of the table columns by drag and drop.

You can alter the position of column titles by drag and drop:



Browse Filters

It is possible to specify customized filters (queries) for selecting data from the database. Customized filters can be ordered from Datacolor. Please contact your Datacolor distributor for more information.



Note

- The integrated tool for customizing filters needs advanced know-how of both the database and SQL.
- Filters are language dependant. They can only be specified and used with applications that have the same application language.

Using Browse Filters

Action	Result
1 On the context-sensitive menu of the requested list window, click Filter .	The "User Definable Filters" dialog box appears.
2 In the „Prepare Filter“ tab, select the filter, type the identification(s) of the objects in the fields, and click OK .	The selected objects are displayed in the list window.

Disabling Browse Filters

Action	Result
1 On the context-sensitive menu of the requested list window, click Reset Filter .	

Exporting and Sending Browse Filters

A filter definition can be exported to a file or be attached to an e-mail.

Action	Result
1 In the „Define Filter“ tab of the “User Definable Filters” dialog box,	
<ul style="list-style-type: none"> click Export to export the filter definition to a file. 	The „Save as“ dialog box appears. The file can be saved with the extension „.dmf“.
<ul style="list-style-type: none"> click Send Mail to mail the filter definition. 	The e-mail form appears and the filter definition file is attached.

Importing Browse Filters

	Action	Result
1	In the „Define Filter“ tab of the “User Definable Filters” dialog box, click Import .	The „Open“ dialog box appears. The file with the extension „.dmf“ can be opened and imported.

Importing Browse Filters directly from the E-mail

	Action	Result
1	On the File menu of the overview window, click Scan Mail .	All attached files with the extension „.dmf“ are searched und displayed in the „Loading Filters from Mail“ dialog box.
2	Select the requested files, and click Load .	The selected files are imported.

Defining Units

	Action	Result
1	On the Tools menu, select Define Units .	The "Unit" dialog box appears.
2	Select a unit or specify a new name.	
3	Specify or alter the parameters.	Refer to Unit Dialog Box on page 7-111 .
4	Click Save .	The new or modified unit is saved.

Options

The "Options" dialog box is used to define the view of ID and AuxID, the dispenser connection, the use of stock solutions, the selection of units, and the paper orientation.

	Action	Result
1	On the Tools menu, select Options .	The "Option" dialog box appears.
2	Select the corresponding tab.	
3	Specify or alter the parameters.	Refer to Options Dialog Box on page 7-112 .
4	Click Save .	The new or modified option is saved.

Import and Export

Datacolor MATCH^{Textile} supports the import/export of samples and colorant sets with different file formats:

- Sample Import/Export with Datamatch format (*.EXP, *.EXQ files)
- Sample Import/Export with Datacolor Envision or Datacolor Tools (*.QTX files)
- Sample Import/Export with Datacolor MATCH^{Textile} (*.XML files)
- Colorant Set Import/Export with Datacolor MATCH^{Textile} (*.XML files).

The XML files may become very big (a file with 120 samples is about 370KB). You can compress them drastically (24 KB) using WinZip.



Note

Internet Explorer Version 5.01 Sp2 or higher must be installed to run the Import/Export of XML files.

Exporting Data

Export function for color samples.

	Action	Result
1	On the Tools menu, select Export .	The "Export" dialog box appears. Refer to Export Dialog Box on page 7-135 .
2	Select the data type and the format.	Attention: Datamatch, Datacolor Tools or Datacolor Envision cannot import XML files.
3	Specify path and file name of the export file or use the browse function, and click Export .	

Importing Data

	Action	Result
1	On the Tools menu, select Import .	The "Import" dialog box appears.
2	Specify path and file name of the import file or use the browse function.	Refer to Import Dialog Box on page 7-134 . Refer to Importing Colorant Sets on page 4-14 for importing colorant sets.
3	Click OK .	If the corresponding options are set, all or the existing samples are prompted. You can Save , Save with Prefix , or Skip them.



Note

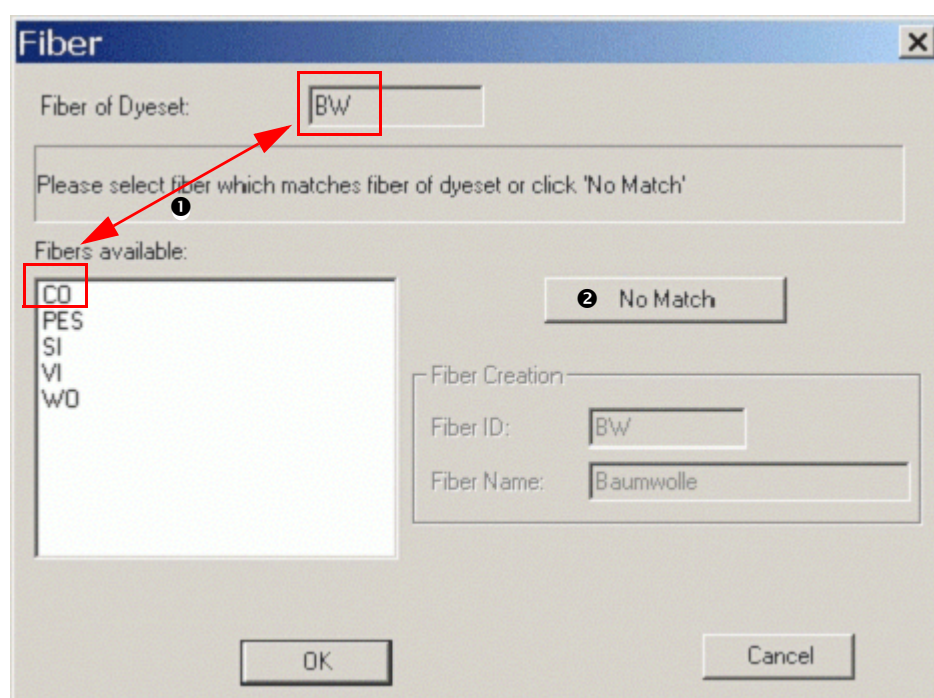
- Samples are not imported if either the name or the spectral data is the same as data that already exists in the database.
- The import function compares the spectral data when the sample name already exists. A new sample is only created if the spectral data is different. E.g., if sample „Blue 4711" is already in the database, the imported sample, which has the same name but different spectral data, is imported as „Blue 4711 - 001".
- Samples imported from EXP files are always stored in the database. If the sample name already exists, a new sample is created with an extension in the name, e.g. sample „Blue 4711" is saved as „Blue 4711-0".

Importing Colorant Sets



Note

- If you import a colorant set that already exists, the program updates the new data. Calibration data is always updated. **Dyestuff prices are not imported.**
- If the fiber of the colorant set does not exist in the database, a dialog opens where you can select an equivalent from your database.
 - ❶ This is to avoid creating the same fibers in different languages (e.g. Co, Bw, etc).
- If there is no fiber in the database that matches the fiber of the colorant set, click **No Match** ❷. A new fiber is then created.
- Click **OK** to start the import.

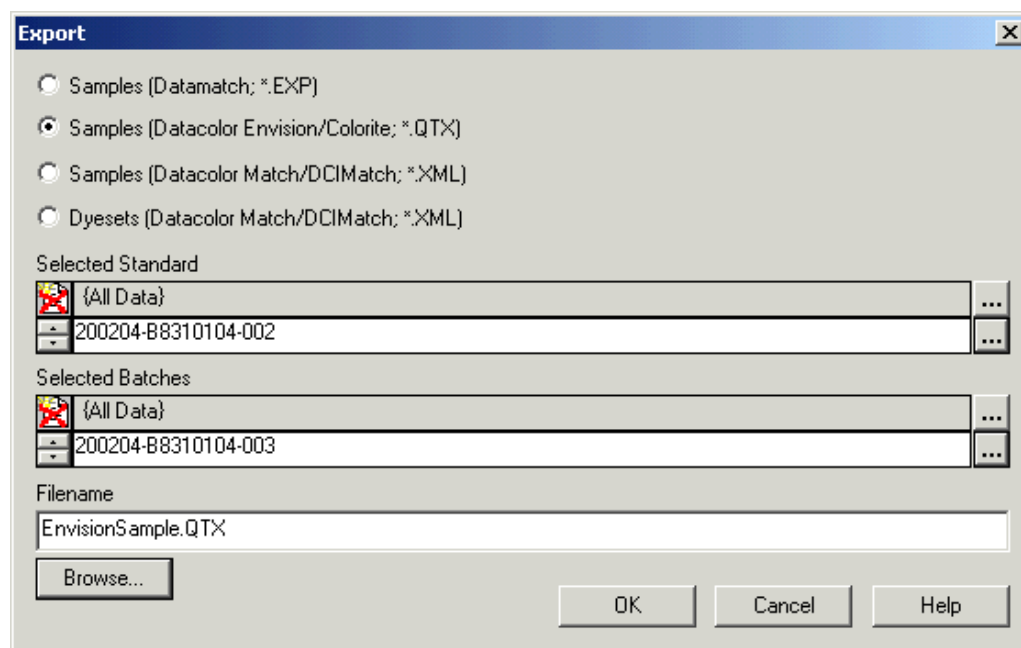


**Note**

- The dye class is treated in the same way as the fiber.
- If the dye class of the colorant set does not exist in the database, a dialog opens where you can select an equivalent dye class from your database.
 - ❶ This is to avoid creating the same dye classes in different languages (e.g. Dispersion, Disperse, or Cationique and Basic etc).

If there is no dye class in the database that matches the dye class of the colorant set, click **No Match** ❷. A new dye class is then created.
- ❸ You can modify the dye class ID and name before you start the import.
- Click **OK** to start the import.

Importing and Exporting Samples as QTX Files



Datacolor MATCH^{Textile} can export/import samples to/from QTX files. A file always contains a standard and its batch(es). It is not possible to select more than one standard. In this case, you must specify multiple export files.



Note

If you select only batches, the dialog box closes when you click „OK“. No samples are then exported.

Backing Up Using Datacolor MATCH^{Textile}

The backup function saves the database to the selected target drive and folder.

	Action	Result
1	On the “Tools” menu, select Backup .	The “Backup” dialog box appears.
2	Specify target drive and path (or use the browse button), and click OK .	The contents of the database are saved.



Caution

Before the backup is made all databases are validated. This may take up to several minutes depending on the size of the databases. If there is a problem with one of the databases, a message is displayed and the backup is not made. An old backup must be restored in this case.

Backing Up Using Sybase Utilities

The backup utility is used to store running databases, database files, transaction logs, and write files.

You can access the backup utility ...

- using Sybase Central, or,
- using the system command line to call the **dbbackup** utility. This utility can be used for specifying batch or command files.

The backup utility copies the database file and the transaction log of a single database.

Backing Up Using Sybase Central

Backing Up A Running Database

	Action	Result
1	Start Sybase Central .	
2	Connect the database.	
3	Right-click the database and select Backup on the context-sensitive menu.	
4	Follow the instructions of the wizard.	

Backing Up A Database File or A Running Database

	Action	Result
1	Start Sybase Central .	
2	Open the „Utilities“ folder in the left panel.	
3	Double-click the Backup Database in the right panel.	
4	Follow the instructions of the wizard.	

The dbbackup Command

Syntax

Dbbackup [switches] *path*

Switches

Switch	Description
-c „keyword=value“	Database connection parameters. If the connection parameters are not specified, the parameters of the SQLCONNECT environment variable will be used (if they are set). Parameters: eng= <i>engine</i> dbn= <i>database name</i> uid= <i>user ID</i> The user must have DBA authority or REMOTE DBA authority. pwd= <i>password</i>
-d	Only stores the main database file.
-l <i>file name</i>	Stores the transaction log file to a file with the specified name.
-n	The switch is only active, if the switch -r is set. Changes the name of the transaction log file to the following format: yymmddnn.log yy year mm month dd day nn number in the range of 00 to 99.
-o <i>file name</i>	Creates a file for the log output.
-q	Quiet mode: Messages are not printed.
-r	Rename and start a new transaction log.
-t	Only stores the transaction log.
-w	Only stores the write file.
-x	Deletes and restarts the transaction log.
-xo	Deletes and restarts the transaction log without backup.
-y	Replaces files without confirmation.

Importing and Exporting Print Forms (Tools Menu)



Caution

If the print form database is to be replaced, the old print forms must be exported first.

Your print forms will not be lost, if you have not exported them. The existing database is renamed by the setup program. The user can access the database by changing the database connection in the ODBC settings for the print form DSN.

Exporting Print Forms (Tools Menu)

	Action	Result
1	On the "Tools" menu, select Export Print Form .	The "Form maintenance" dialog box appears. Refer to Form Maintenance Dialog Box on page 7-136 .
2	Select the print forms to be exported, and click Export .	The „Save as“ dialog box appears.
3	Specify a file name, and click Save .	

Importing Print Forms (Tools Menu)

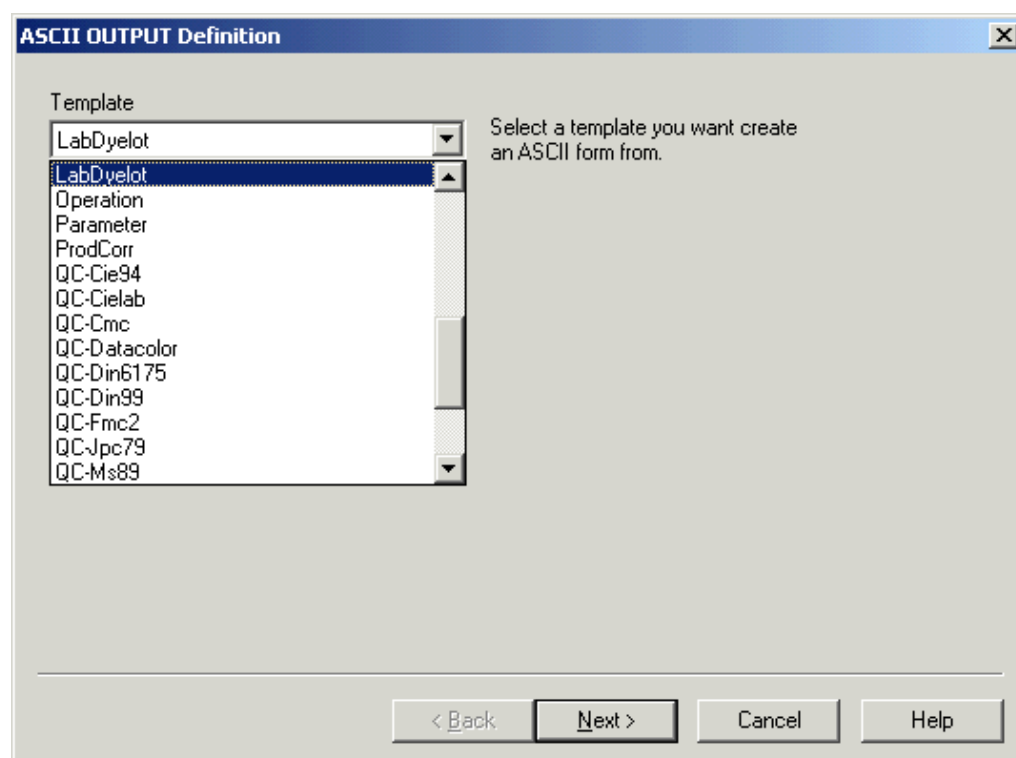
	Action	Result
1	On the "Tools" menu, select Import Print Form .	The "Open" dialog box appears.
2	Select the print form export file (*.pfe) to be imported, and click Open .	The „Save as“ dialog box appears.

ASCII Output (Option)

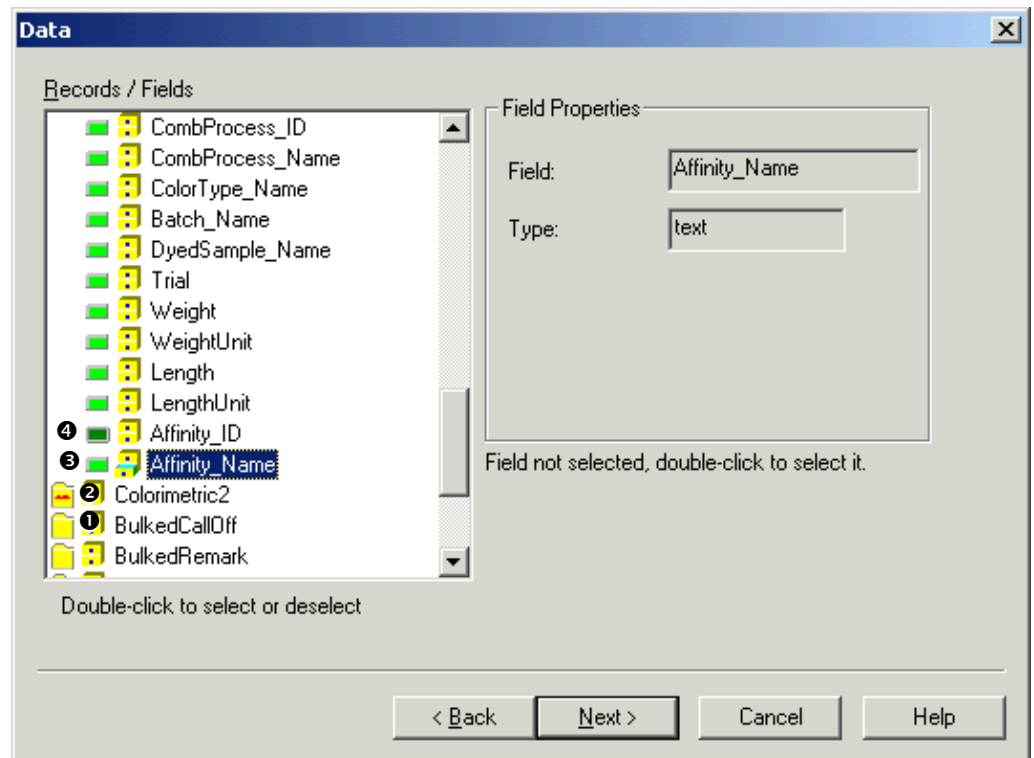
The ASCII output option supports writing data to an ASCII file when you can print data. This option includes specifying, modifying and deleting ASCII forms.

Specifying ASCII Forms

Action	Result
1 On submenu „ASCII Forms“ of the “Tools” menu, select New .	The “ASCII Output Definition” dialog box appears.



2 Select a template from the list, and click Next .	The „Data“ dialog box appears.
--	--------------------------------



- ❶ Folder without selected fields. Click the folder to open or to close it.
 - ❷ Folder with selected fields (signed by red dots). Click the folder to open or close it.
 - ❸ Non-selected field with opened properties. Double-click the icon to select the field. Click the icon to close the field properties.
 - ❹ Selected field with closed properties. Double-click the icon to deselect the field. Click the icon to open the field properties.
-
- | | | |
|---|--|--|
| 3 | Select the fields to be written to the ASCII file. | The corresponding field properties are displayed. |
| | | The number of decimal digits can be altered for all fields of type „double“. |
| 4 | Click Next . | The „Options“ dialog box appears. |

Field Delimiter	If necessary, change the field delimiter.
Record Delimiter	If necessary, change the record delimiter.
String Delimiter	If necessary, change the string delimiter.
Field Description Line	Check the box if a field description line is required.
Field Description Prefix	If necessary, type a field description prefix.
File Name	Type the path and the file name.
File	Select „Append“ if the new records should be added to an existing file, or, select „Overwrite“ if the existing file should be overwritten.

- 5 Click **Next**. The „ASCII Form Name“ dialog box appears.
- 6 Type the name of the form, and click **Finish**.

ASCII Output of Recipes

	Action	Result
1	In the „Recipe List“ window, double-click the recipe that should be printed to an ASCII file.	The “Show Full Recipe” dialog box appears. Refer to Show Full Recipe Dialog Box on page 5-75 .
2	Click ASCII .	The file is saved to the place specified in the ASCII form.

Example: ASCII output of a laboratory recipe

```
@ "Recipe_ID", "Recipe_Name", "SubstrateDelivery_Name", "CombProcess_ID", "CombProcess_Name", "ColorType_
Name", "Trial", "Weight", "Quality_ID", "Quality_Name"
"129", "Ref. Beige", "", "REA-BEZ", "Reactive Bezema Exhaust", "Rec. Beige SM", 1, 10.00, "1", "Cotton bleached "
@ "Product_ID", "Product_Name", "RecipeAmount", "RecipeUnit", "ActualCost", "Amount", "Unit"
"NaCl", "Common Salt", 30.00, "g/l", 0.00, 3.00, "g"
@ "Product_ID", "Product_Name", "RecipeAmount", "RecipeUnit", "ActualCost", "Amount", "Unit"
"NaCl", "Sodium Carbonate", 5.00, "g/l", 0.00, 0.50, "g"
@ "DyeSet", "dE Illuminant", "dE", "MetamerismText1", "Metamerism1", "MetamerismText2", "Metamerism2"
"Reactive Exhaust", "dE (D65)", 0.00, "Metamerism (A)", 0.07, "Metamerism (F11)", 0.30
```

ASCII Output of Basic Data

	Action	Result
1	In the corresponding list window, select the object that should be printed to an ASCII file.	
2	On the basic data menu, click ASCII .	The file is saved to the place specified in the ASCII form.

Example: ASCII output of an affinity

```
@ "ID", "Name", "FiberGroup"
"55PES/45CV WASH", "55PES/45CV washed 70° C", "PES/VI"
@ "Fiber", "Part"
"Polyester", 55.00
@ "Fiber", "Part"
"Viscose", 45.00
@ "QualityID", "QualityName"
"55PES/45CV LICL", "55PES/45CV Libero Classic"
*****
@ "ID", "Name", "FiberGroup"
"CO3", "C04200 (BASF) geb1.BW-RENFORC", "CO"
@ "Fiber", "Part"
"Cotton", 100.00
@ "QualityID", "QualityName"
"S4", "C04200 (BASF) geb1.BW-RENFORC"
```

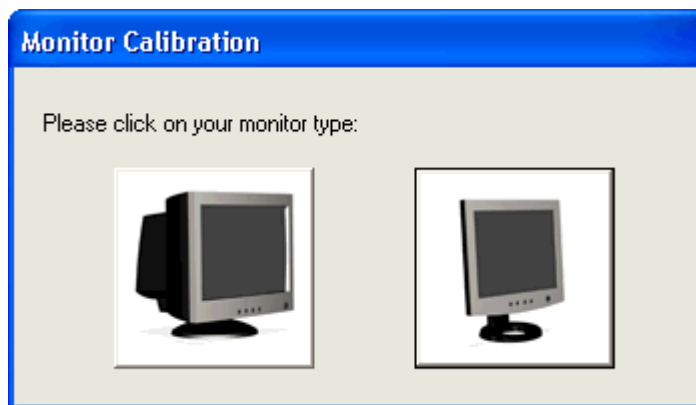
Calibrating the Monitors Using Datacolor SPYDER2

**Note**

This function is enabled if the Datacolor SPYDER2 is connected to the USB port.

This function is used to perform the monitor calibration for adjusting the color of the monitor. After calibrating the monitor, all color patches displayed on the screen are more similar to the color of the measured sample. A calibrated monitor enables you to judge and compare colors more correctly before dyeing.

	Action	Result
1	In the „Tools“ menu, select Calibrate Monitor .	The assistant for monitor calibration appears.




- | | |
|---|-----------------------------------|
| 2 | Follow the advises on the screen. |
|---|-----------------------------------|

Sending E-mails

All print files can be sent as an e-mail if a mail program is installed that meets the MAPI standard, e.g., MS Outlook.

Mailing Basic Data, Lab Dye Lots, Colorant Sets

Action		Result
1	In the corresponding list window, select the objects that should be mailed.	
2	On the „Basic data“ menu, select Display .	The Print Preview appears.
3	 Click the e-mail button.	The e-mail form appears. The pages of the print preview are converted to the JPEG format and attached to the e-mail.
4	Fill in the form with e-mail address and mail text, and send the e-mail.	

Mailing Recipe Tables

Action		Result
1	On the context-sensitive menu of the recipe table, click Mail Table .	The e-mail form appears. The recipe table is converted to the JPEG format and attached to the e-mail.
2	Fill in the form with e-mail address and mail text, and send the e-mail.	

Specifying Print Forms Using the Pager

The pager is used to specify print forms. A set of forms is delivered by Datacolor. The user can modify these forms or specify new ones.

Starting the Pager



1. On the Windows start menu or the desktop, click the Pager icon.
The "Pager" window appears.

Specifying A New Print Form

Refer to [Pager Window on page 7-137](#) for more information about the parameters.

	Action	Result
1	In the toolbar or on the "File" menu, select New .	The "Template Identification" dialog box appears.
2	Select "Application", "Option" (object type), "Language", and "Version", and click OK .	An empty form appears containing all sections available for the selected option.
3	Click the section to be specified. Inactivate an unused section: On the Edit menu, select Hide Current Section , or select the requested section on the "Sections" menu.	The check mark is removed and the section is not used in the current print form.
	Specifying a text field:	
1.	In the toolbar, select the text tool.	
2.	Draw and place the requested text field.	
3.	In the toolbar, select "Toggle Properties."	The "Properties" box appears.
4.	Specify the text and change the other parameters if requested.	
	Specifying a database field:	
1.	In the toolbar, select "Toggle Properties."	The "Fields" list box opens displaying all available fields.
2.	Select and place the requested database field. The parameters of the fields can be altered using the "Properties" box.	A text field for the description and a field for the data is displayed.

4 Draw rectangles and ellipses:

1. In the toolbar, select the rectangles or ellipses tool.
2. Draw and place the graph. The parameters of the graph can be altered using the "Properties" box.

Enter a bitmap graph:

1. In the toolbar, select the "Bitmap" tool and click the selected section.
2. Search and select the graph (supported are *.bmp, *.pcx, *.jpg graph), and click **Open**. The "Open" box appears.
3. Place the graph. The parameters of the graph can be altered using the "Properties" box.

Specifying date/time, page number or form (file) name:

1. In the toolbar, select the requested tool and place the field.

Remove all field from the current section:

1. In the toolbar, select the requested tool and place the field.

Deleting a field:

1. Select the field and press **Ctrl + Del**.
-
- 5 In the toolbar or on the "File" menu, select **Save (As)**. The "Form Name" dialog box appears.
 - 6 Specify a form name, and click **OK**. The new print form is created.
-

Modifying A Print Form

Refer to [Pager Window](#) for more information about the parameters.

	Action	Result
1	In the toolbar or on the "File" menu, select Open .	The "Template Identification" dialog box appears.
2	Select "Application", "Option" (object type), "Language", and "Version", and click OK .	The selected form appears.
3	Alter the form as requested. Refer to Specifying A New Print Form on page 4-26 .	
4	In the toolbar or on the "File" menu, select Save , and click OK .	The print form is altered.

Deleting or Renaming A Print Form

	Action	Result
1	In the toolbar or on the "File" menu, select Delete/Rename .	The "Form Maintenance" dialog box appears.
2	Select the requested form.	
3	Rename: Click the form name, alter the name, and press ENTER .	The name is altered.
	Deleting: Select Delete , and confirm the deletion.	The selected print form is deleted.

Importing Print Forms

	Action	Result
1	On the "File" menu, select Import .	The "Open" dialog box appears.
2	Search and select the form to be imported, and click Open .	The selected file is imported.

Exporting Print Forms

	Action	Result
1	On the "File" menu, select Export .	The "Form Maintenance" dialog box appears.
2	Select the form to be exported and click Export .	The "Save as" dialog box appears.
3	Select the path, specify a file name, and click Save .	The selected form is exported.

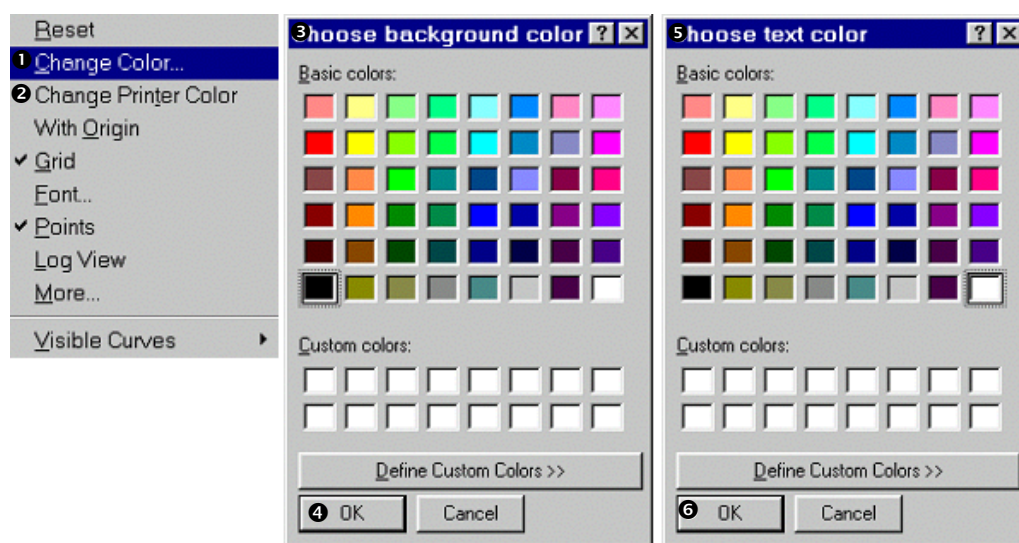
Customizing Graphs

The background color of all graphical displays and printouts is white, while text and curves are black with different line styles and the grid is activated by default.

You can have different settings for background and text color of the graphical displays and the printout. Modification of these settings are stored in the registry table of the database.

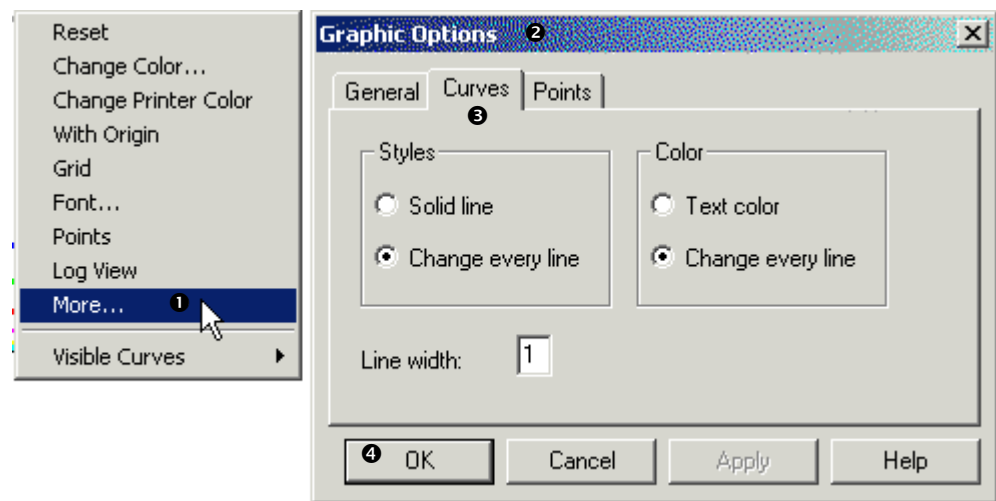
You can only modify the graphical settings in programs with graphical options such as the colorant set or the measurement program.

Setting Colors for Graphs



Action	Result
1 On the context-sensitive menu, select Change Color ❶ (for the display) or Change Printer Color ❷ (for color printers).	The „Choose Background Color“ dialog box ❸ appears.
2 Select the background color and click OK ❹ .	The „Choose Text Color“ dialog box ❺ appears.
3 Select the text color and click OK ❻ .	

Setting Line Style and Color



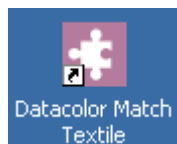
Action		Result
1	On the context-sensitive menu, select More ①.	The „Graphic Options“ dialog box ② appears.
2	In the „Curves“ tab ③, set style, color, and line width.	
3	Click OK ④.	

5

Using Datacolor MATCH^{Textile}

Basics

Starting Datacolor MATCH^{Textile}



- 1 On the Windows start menu or the desktop, click the Datacolor MATCH^{Textile} icon.
The Datacolor MATCH^{Textile} explorer with the "Over-view" window appears.

Data Handling

Browse and Selecting

Using the object tree

All objects are displayed in a structured list on the left of the "Explorer" window.

Opening and closing structure levels:

- + A + sign indicates that there are hidden subordinate folders and/or objects. Click the + sign to open the next structure level.
- Click the - sign to close all subordinate structure levels.

Selection of objects:

Action	Result/Notes
1 Select the requested object folder using the left mouse button.	The object folder data is displayed in the corresponding view.

Context-sensitive menu:

New Folder	Adds a new subfolder to the selected folder. <i>Type a meaningful name.</i>
Delete	Deletes the selected folder (only if the folder is empty).
New Root Folder	Adds a new root folder. <i>Type a meaningful name.</i>
Rename	Is used to rename the selected folder.
Data Type in this Folder	Opens the „Data in Folder“ dialog box used for searching data types and the corresponding data in the selected folder. Refer to Data in Folder Dialog Box on page 7-13 .
Find in Folder	Opens the „Find <data type> in Folder“ dialog box used for searching data records with a determined name or part of the name. The <data type> of the opened list window is used. Refer to Find in Folder Dialog Box on page 7-14 .

Searching data types and the corresponding data in the selected folder

Refer to [Data in Folder Dialog Box on page 7-13](#).

Searching objects of a determined data type

	Action	Result/Notes
1	On the context sensitive menu, select Find in Folder .	The „Find <data type> in Folder“ dialog box is displayed. The data type of the opened list window is selected.
2	Type the name (or a part of the name) of the searched data records, select the search restrictions, and click Search .	Refer to Find in Folder Dialog Box on page 7-14 . The corresponding data is displayed.
3	Select one or more of the items in the „Search Result“ box and right-click to display, print, or to make an ASCII output of the data.	

**Note**

The number of data records to be displayed is limited to 1000. A message is displayed, if the limit is exceeded

Using the overview window

Clicking a button opens the corresponding list window. Refer to chapter [Windows and Dialog Boxes on page 7-1](#), section [Overview Window on page 7-2](#).

Using the list windows

A mouse double-click in an object opens a window, dialog box, or property sheet, that is used to alter or delete the corresponding object data. Refer also to [General table functions on page 5-7](#).

Using special browse functions and the query designer

"Operations" and "Combined Processes" are windows with special browse functions:

Quick search

	Action	Result/Notes
1	On the „Select“ menu, click Quick Search .	The "Quick Search" box appears. Refer to Quick Search Dialog Box .
2	Select the „Search Type“, check the "Quick Search Column(s)" and "Global Search."	
3	Specify search criteria (* is wildcard for unknown leading characters and/or for unknown characters between known ones), and click OK .	In the corresponding browse window, the objects found are displayed. A mouse double-click in the requested object opens a window, dialog box, or property sheet, that is used to alter or delete the corresponding object data.

**Note**

You can reduce the result list using the "Search in result set" function and more specific search criteria.

Example

Quick search

Search Type: Starts with

Enter your search values :

- Pant. 14
- Pant. 19

QuickSearch Columns:

- ☒ ID
- ☒ Name
- ☒ AuxID

QuickSearch Rows:

- ☐ Search in result set
- ☒ Global search

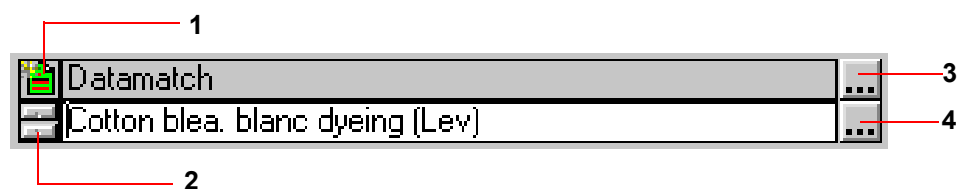
OK Cancel Help

Default query

	Action	Result/Notes
1	Select Default Query .	In the corresponding browse window, all objects are displayed. A mouse double-click in the requested object opens a window, dialog box, or property sheet, that is used to alter or delete the corresponding object data.

Custom query

For advanced "ITM Process" users only. *Refer to the ITM Process documentation.*

Field-specific functions**Switch between selection and input mode (1)**

Click to switch between selection and input mode.



Selection mode



Input mode



The input mode is locked.

Data selection step by step (2)

The upper partial button selects the values step by step in descending order (previous), the lower partial button in ascending order (next).

Browse buttons (3, 4)

The upper browse button (3) opens the "Directory" dialog box used for folder selection. The lower browse button (4) opens a list or search box to select data corresponding to the field.

Selection aids for fields and table column headers

The following selection aids are implemented for input fields with a link to another object (drop-down combo boxes or fields with a browse button):

Typed characters are used for search criteria. In front of the field, they are displayed in red and into disappointed brackets. The following wildcards are available:

% (percent)	Replaces an undefined number of characters. % is set per default at the end of the search string.
_ (underscore)	Replaces any single character.
[]	The characters (or a range of characters) between the square brackets are to be included in the data found.
<i>Examples:</i>	[or] Displays only names that contain the characters o or r .
	[b-h] Displays only names that contain the characters of the range b to h .
[^]	The characters (or a range of characters) between the square brackets are not to be included in the data found.

If you scroll using search criteria, only the corresponding objects are displayed.

Opening context-sensitive menus

Context-sensitive menus are available in different windows, dialog boxes, and fields (Refer to the corresponding descriptions.). For opening, set the mouse cursor into the corresponding field or table column and click the right button.

Specifying, Modifying and Deleting Objects



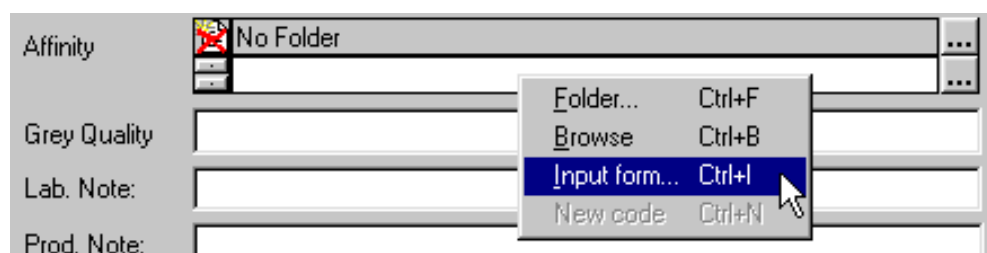
Note

The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

Specify or modify an object, you can specify new objects of another linked object type using the corresponding tab or selection field.

Example: In the "Quality/Style Property Sheet", you can specify a new affinity as follows:


- Use the "Affinity" tab.
- In the "Affinity" field of the "Quality/Style" tab, use the "Input Form" function of the context-sensitive menu.




Opening the input form

Action	Result/Notes
1 If available, select the corresponding tab, or, right-click the selection field where the new object should be entered.	A context-sensitive menu appears.
2 Select Input Form .	The requested tab, box, or window appears.

Specifying objects

	Action	Result/Notes
1	Select a folder, if necessary.	
2	Switch to the input mode.	 The input mode icon appears.
3	Specify the new object name or overwrite the existing name with the new one.	
4	Specify the other data.	<p>Fields marked with a red * are mandatory.</p> <p>Refer to the corresponding description in chapter Windows and Dialog Boxes on page 7-1 for more information about the parameters.</p>
5	Click Insert .	The new object is created.

Modifying and Deleting Objects

	Action	Result/Notes
1	Select the object data to be modified or deleted.	Refer to Browse and Selecting on page 5-2 .
2	Modifying: In the requested fields, change the object data, and click Save .	 The input mode icon appears. The object is altered.
3	Deleting: Click Delete and confirm the deletion.	The object is deleted.

**Note**

An object cannot be deleted, if it is linked to other objects. If the system cannot delete an object, all valid links are listed in the “Delete Check” info box.

Calibration and Measurement



Note

- For further details about your spectrometer refer to the manual supplied with your system.
- It is not possible to re-measure color types if they are linked to other tables.

Calibrating Your Spectrophotometer

Your spectrophotometer must always be calibrated after switching on. It is recommended to calibrate at least every eight hours. Different types of spectrophotometers have different settings. This section gives a general description of the calibration.



Action	Result/Notes
--------	--------------

- | | |
|---|---|
| 1 | Check that your spectrophotometer is switched on. |
|---|---|



Note

Leave the spectrophotometer to warm up for a few minutes. Datacolor recommends that for the greatest accuracy you should wait thirty minutes before calibrating.

- | | | |
|---|--|---|
| 2 | <p>If you select the Measure Directly  button missing calibrations are requested automatically.</p> <p>For an intentional calibration, click the Measure  button and in the opened "Measurement" dialog box, select the "Calibrate" tab.</p> <p>After specifying the parameter values according to your spectrophotometer, click Calibrate.</p> | <p>Refer to Measurement Main Window on page 7-15.</p> |
| 3 | Follow the advice on the screen. | |

UV Calibration

Calibration Methods



Note

There are several methods that can be used to calibrate the adjustable UV filter position. Please refer to the whiteness standard you are using to determine the method to be used.

Ganz/Griesser: This procedure uses the Ganz/Griesser calibration method. The light source is filtered to simulate the D65 Illuminant and the Ganz Griesser parameters are used to calculate the filter position. In addition, the target whiteness value is based on 10% standard observer data.

CIE using D65/10: The light source is filtered to simulate the D65 illuminant. This is the procedure used to perform a CIE Whiteness evaluation.

ISO Brightness (C): The light source is filtered to simulate Illuminant C. This is the procedure used to perform an ISO Brightness evaluation.

Example using the Ganz/Griesser method

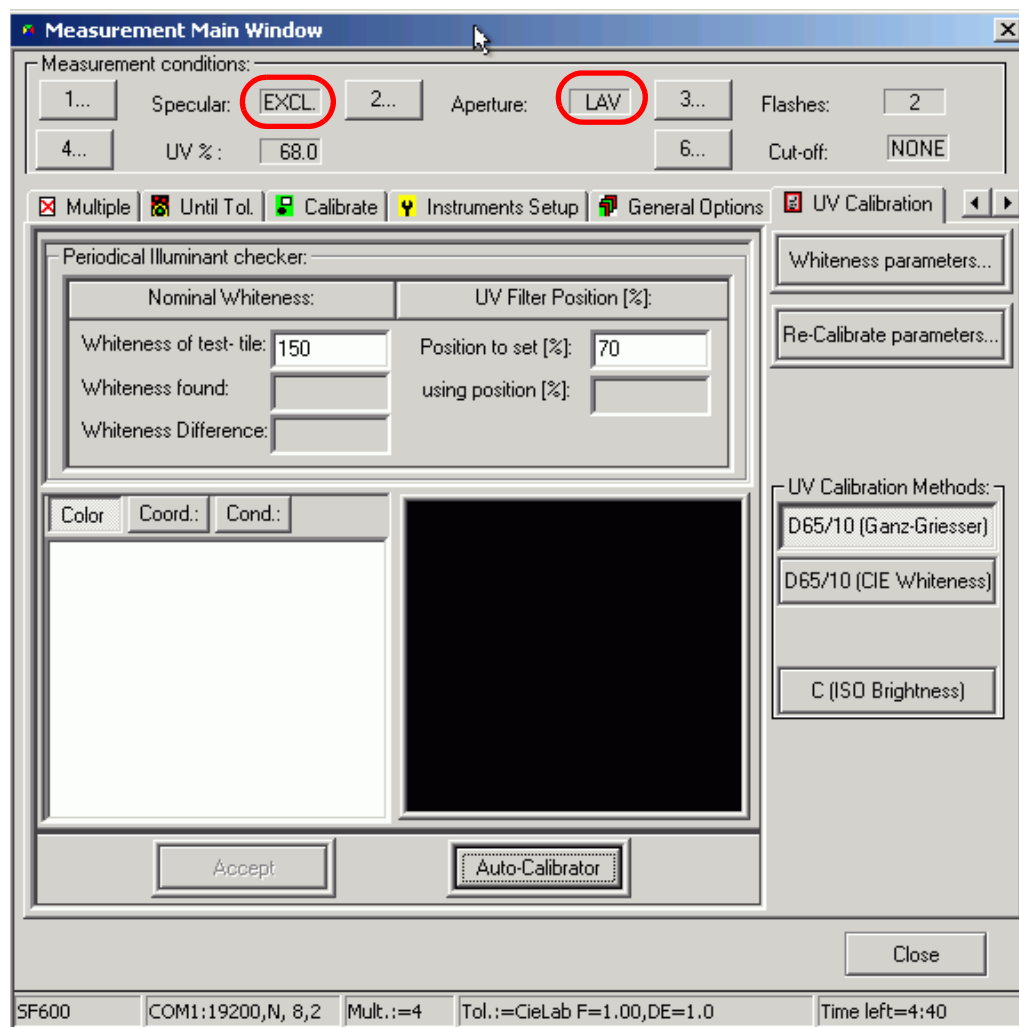
**Note**

The UV calibration is only available for instruments with the whiteness option.

The UV calibration is necessary to ensure a constant UV emission of the bulb.

Definition of the Ganz/Griesser whiteness parameters

This definition is necessary if a bulb or an other part of the optical illumination system has been replaced.



Action	Result/Notes
1	In the "Measurement Main Window", select the UV Calibration tab.
2	Select specular Excl.
3	Set aperture LAV .
4	Click Whiteness Parameters . The „Ganz/Griesser Calibration“ dialog box appears.

Ganz/Griesser Calibration

Instrument-specific parameters determination

Current UV: 87.2953

Nominal whiteness: 174.5

Illumination check sample

Sample No.: 3

Measure

Calculate

Cancel

Color Coord.: Cond.:

R[%]

150

100

50

500 600 700 [nm]

Action	Result/Notes
5	In the “Ganz/Griesser Calibration” dialog box, specify the “Nominal Whiteness”, and click Measure .
6	Repeat step 5 for all samples of your whiteness scale.
7	Click Calculate . The calibration results are displayed.

Calibration Results:

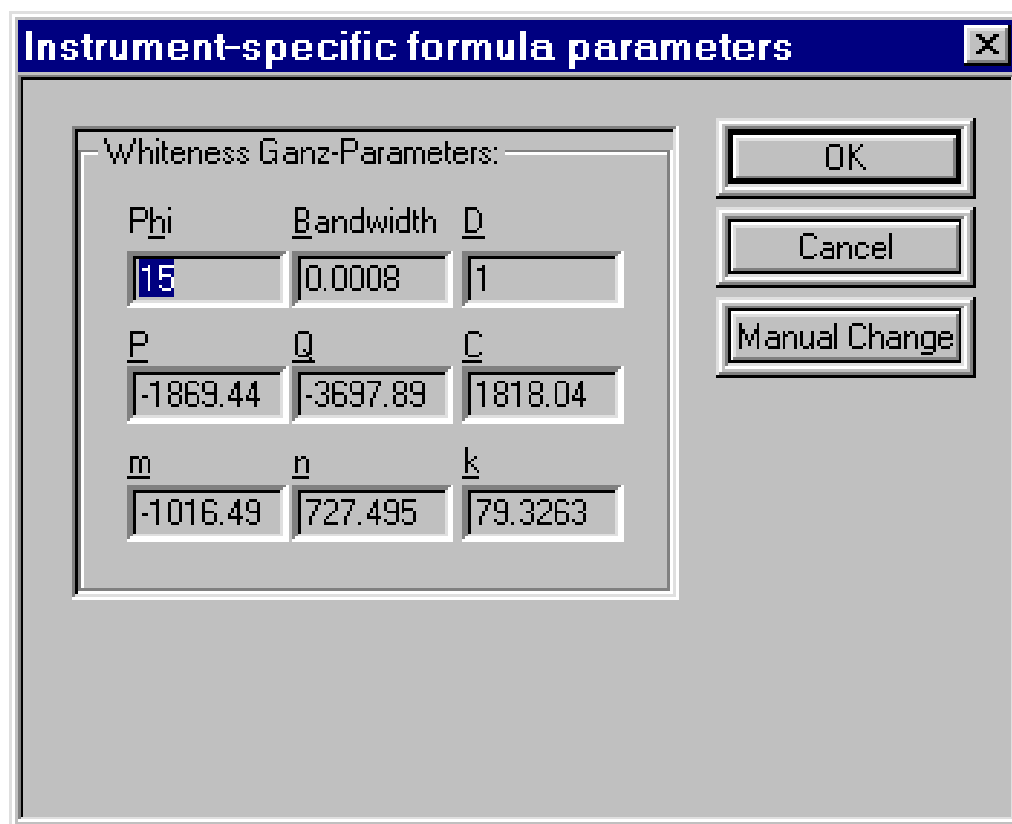
1	Whiteness nom. = 72.90	Whiteness found = 71.62
2	Whiteness nom. = 127.60	Whiteness found = 128.20
3	Whiteness nom. = 174.50	Whiteness found = 176.45
4	Whiteness nom. = 225.60	Whiteness found = 224.32

dW/dS = 4075.84

Accept Recalibrate

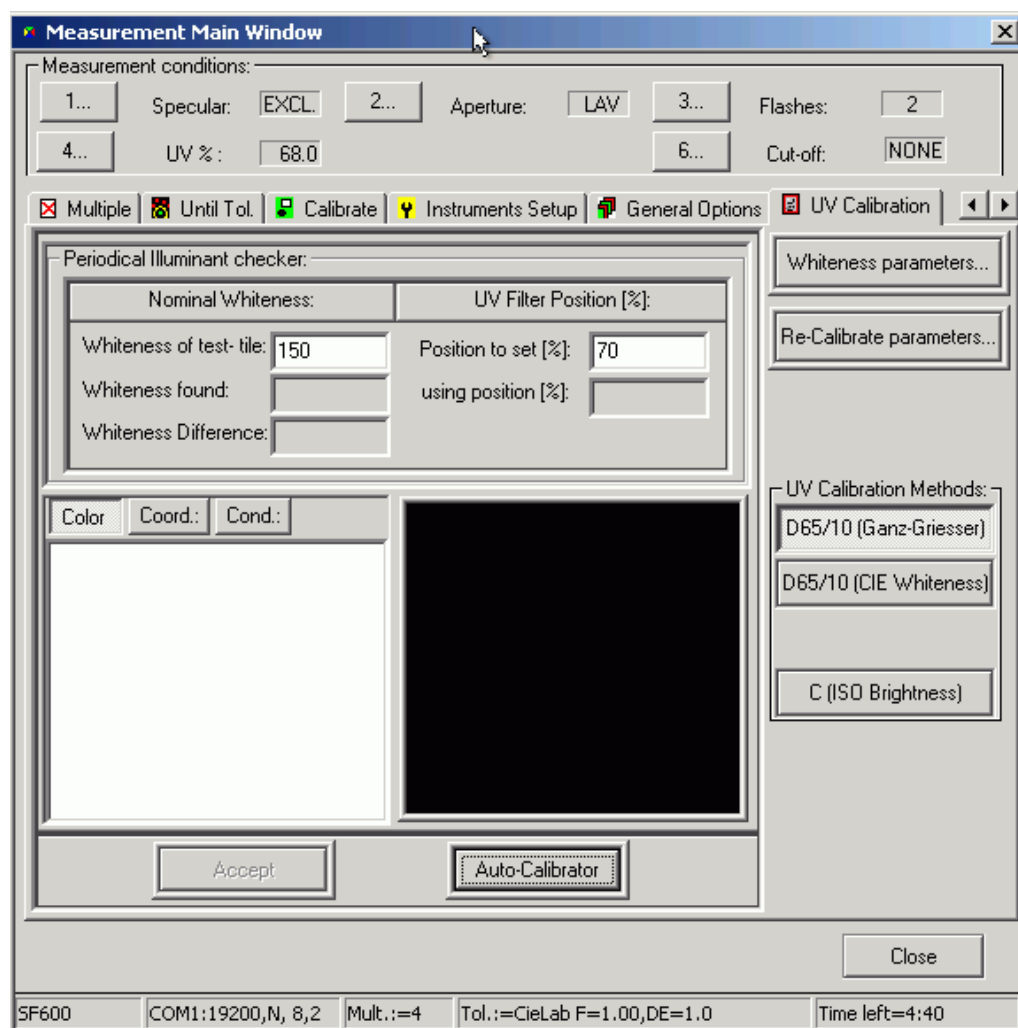
Action	Result/Notes
8 Re-calibrate until "dW/dS" is 4000 ±10 (You must measure all samples again for each Re-calibration.).	The program optimizes the UV filter position for each re-calibration. <div> </div>
9 If the value is ok, click Accept .	The value of this example is ok. The "Instrument-specific Formula Parameters" dialog box appears.

"Instrument-specific Formula Parameters" dialog box:



Checking the UV part of the bulb

The periodical check of the UV emission of the bulb is done using an „Illuminant Checker“ sample. The Ganz/Griesser whiteness is calculated and the UV filter is adjusted.



Action	Result/Notes
1	In the “Measurement Main Window”, select the UV Calibration tab.
2	Select the „UV Calibration Method“.
3	Specify the whiteness of your „Illuminant Checker“ sample in the “Whiteness of Test Tile” field, and click Auto-Calibrator .
4	Repeat the “Auto Calibration” until the “Whiteness Difference“ is in the range of 1.5, then click Accept .

Instrument Correlation

There is always some variation in performance between different instruments. This difference becomes a part of each color evaluation if the standard and batch measurements are carried out using different instruments. While the inter-instrument agreement specification for Datacolor instruments is very tight when working with very small acceptability tolerances, small variations in instrument performance may have a significant impact on all the color evaluations. Maestro offers the additional "correlation" feature to reduce these performance differences further.

Correlation allows you to adjust the performance of an instrument in order to match it to another reference or "master" instrument. This adjustment is carried out by the application of "correlation" factors calculated using the results of the spectral test. Using the differences between the master measurement and the current measurement, the program calculates a set of factors that are applied to each measurement, and which reduce the color difference between the two measurements. By generating correlation factors for every instrument used in the supply chain, the measurements made by each unit can be adjusted to simulate the performance of a single master unit. The result of this is that the Pass/Fail decisions will reflect the differences in the samples rather than in the instruments used to measure them. These correlation factors are generated using Maestro. The instrument correlation feature is enabled through the instrument driver module, however, which is accessible using any Datacolor program, including Maestro.

Once the correlation factors have been generated, they can be applied to raw measurement data to compensate changes in instrument performance. The adjusted measurement data should then closely resemble the measurement data produced by the master unit.

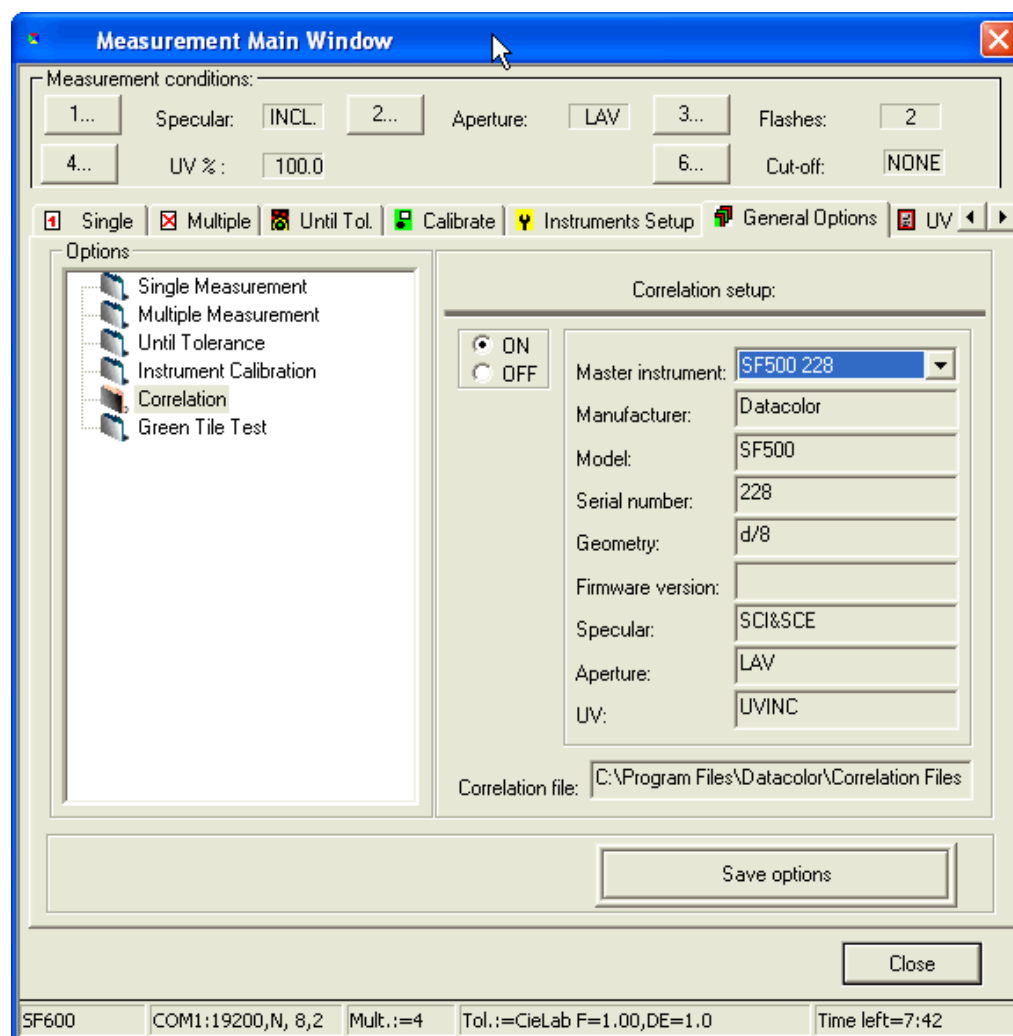
By designating a single instrument as "master", and generating correlation factors for every instrument used in the supply chain, you can minimize any color differences caused by differences in instrument performance. This allows you to share color data electronically, and you will have the confidence that the instruments' Pass/Fail decisions are accurate evaluations, regardless of the instrument(s) used for the measurement.

Configuring and Enabling the Maestro Correlation Feature

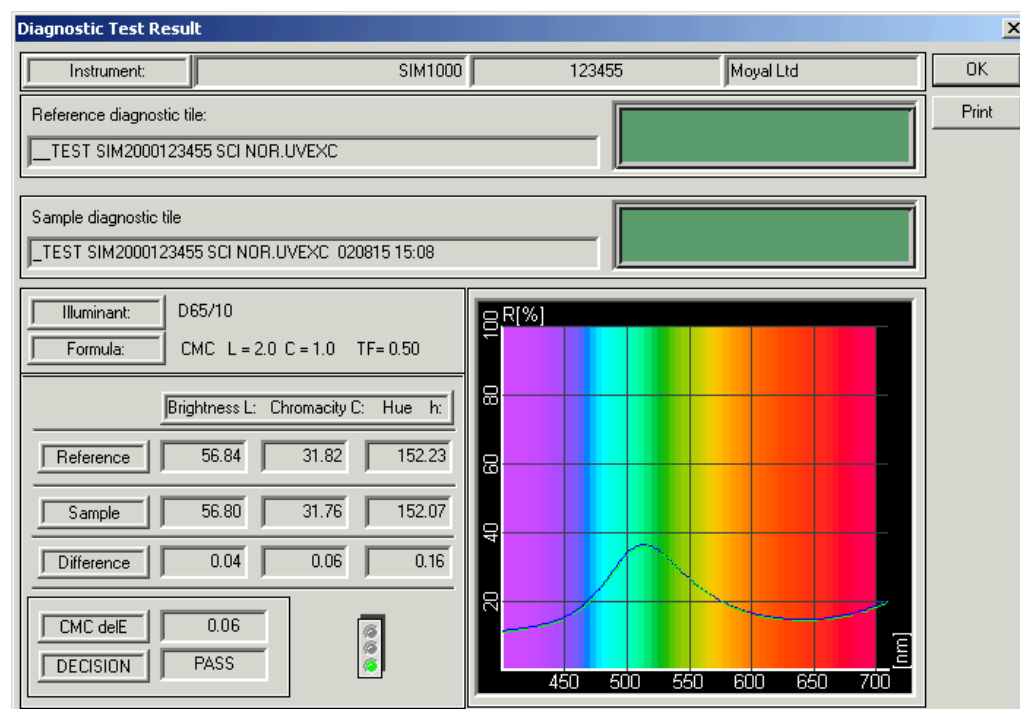


Notes

- **Master Instrument:** You must identify the master instrument. This is the instrument used to generate the master measurements for the reference tile set. When you select "Install" in the Maestro correlation feature, the information about the reference instrument will become available here.
- If the instrument correlation is enabled, all measurement data displayed and stored will be adjusted data.
- Instrument correlation can be enabled/disabled using any Datacolor program. The "Measurement Main Window" is accessed using either an "Instrument" menu or an instrument icon of the Datacolor program you are running.



Action	Result/Notes
1 In the "Measurement Main Window", select the General Options tab.	
2 In the left box, click „Correlation“.	The „Correlation setup“ box appears on the right.
3 Select the master instrument.	All information about the master instrument selected appears in the corresponding fields.
4 Click the button ON to enable the correlation feature, resp., the button OFF to disable it.	When enabled, each measurement made will be adjusted based on the correlation data in the file identified at the bottom of the window.
5 Click Save options to save your settings.	

Test results:**Note**

- Only CMC 1:2 is used for the test.
- If the test fails, the traffic light is red. If configured, the status of the instrument is set to „not calibrated“.

The samples are named as follows:

Green tile test (Standard): __TEST SF3008 SCI UVINC

Green tile test (Batch): __TEST SF3008 SCI UVINC 010321 11:46

The name contains the type (SF300), the serial number (8), the measurement condition (SCI UVINC), and (only for samples) the date and the time of the measurement.

The instrument settings and the measurement conditions are displayed in the status bar of the „Measurement Main Window“.


Measurement




Note

The program stores the type (tab) of the last measurement. The tab used for the last measurement appears for each new one.

Single measurement using the “Measure Directly” button

Action	Result/Notes
1 Check that your spectrophotometer is switched on and calibrated.	Refer to Calibrating Your Spectrophotometer on page 5-10
2 Place the sample into the spectrophotometer.	
3 For a single measurement and if you do not need any parameter alterations, click the Measure Directly  button.	The measurement is executed.
4 Click Insert to save the measurement.	Inserts a substrate delivery measurement into the substrate deliveries, for example.

Measurement using the “Measure” button

Action	Result/Notes
1 Check that your spectrophotometer is switched on and calibrated.	Refer to Calibrating Your Spectrophotometer on page 5-10 .
2 Click the Measure  button, or, on the context-sensitive menu, select Measure .	The “Measure” dialog box appears. Refer to Measurement Main Window on page 7-15 .
3 Select the “Single” tab for a single measurement.	Refer to Single measurement on page 5-20 .
Select the “Multiple” tab for a multiple measurement.	Refer to Multiple measurement on page 5-21 .
Select the “Until Tolerance” tab for an until tolerance measurement.	Refer to Until tolerance measurement on page 5-22 .

Single measurement

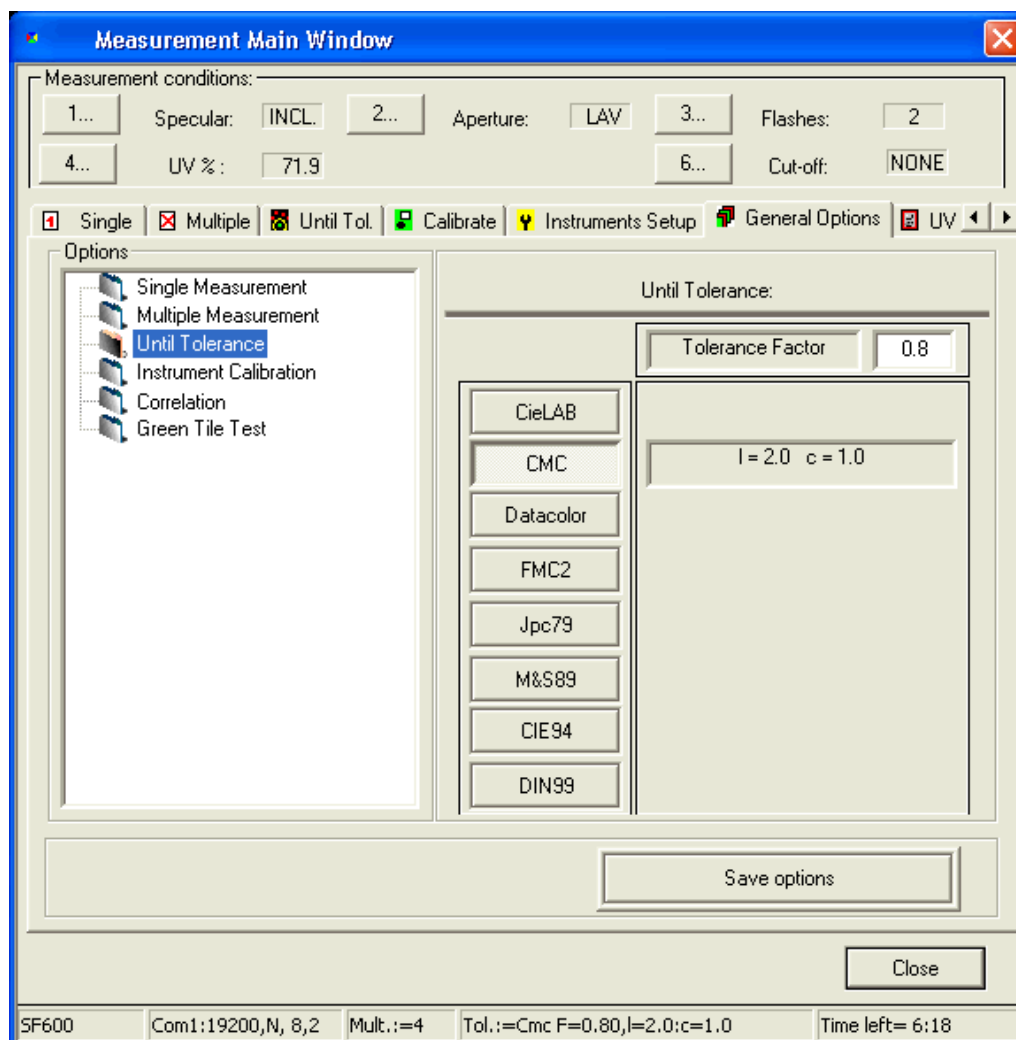
Action	Result/Notes
4 Place the sample to the spectrophotometer, and click the Measure button.	The results of the measurement are displayed in the subordinate tabs.
5 Click Close .	The “Measurement” dialog box is closed.
6 Click Insert to save the measurement.	Inserts a substrate delivery measurement into the substrate deliveries, for example.

Multiple measurement

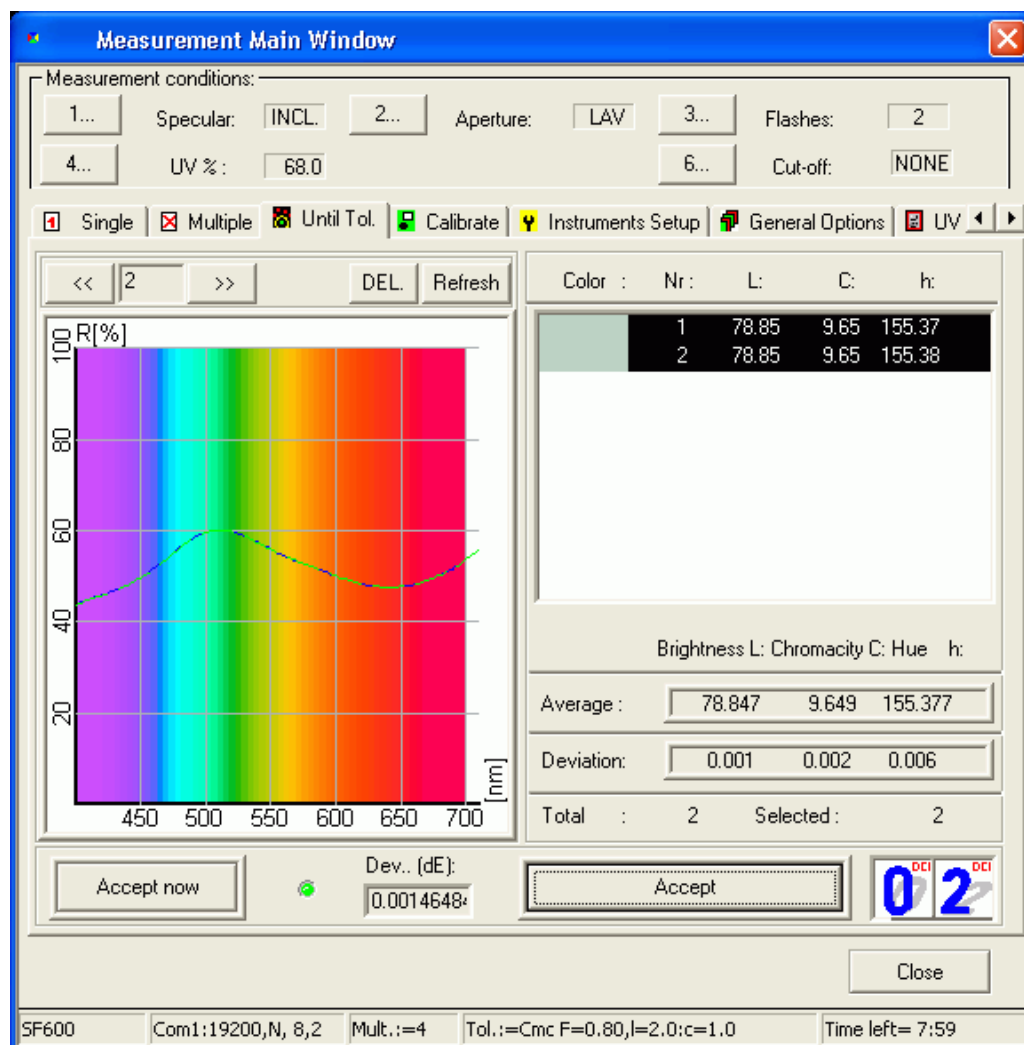
	Action	Result/Notes
4	Place the sample to the spectrophotometer, and click the Measure button. For each additional measurement, move the sample and click Measure again.	The results are displayed in the graph and in the table. Average and deviation are calculated continually. Refer to Multiple Tab on page 7-16 (Measurement Dialog Box.)
5	In the table, cancel the unusable measurements using the mouse. Click Accept Now to save the measurement before the specified number is done.	Average and deviation are calculated continually.
6	If the specified number of measurements is done, the „Measure“ button changes to „Accept“. Click Accept to save the measurement.	Inserts a substrate delivery measurement into the substrate deliveries, for example.
7	Click Close .	The “Measurement” dialog box is closed.

Until tolerance measurement

Action	Result/Notes
1 In the „General Options“ tab, select the Until Tolerance option.	The „Until Tolerance“ data box appears.



- 2 Select the formula, set the tolerance factor, and click **Save Options**.
- 3 Select the **Until Tolerance** tab.



- 4 Place the sample on the spectrophotometer, and click the **Measure** button.
For each additional measurement, move the sample and click **Measure** again.
 - 5 In the table, cancel the unusable measurements using the mouse. Click **Accept Now** to save the measurement before the specified number is done.
- The results are displayed in the graph and in the table. Average and deviation are calculated continually.
Refer to [Multiple Tab on page 7-16](#) (Measurement Dialog Box.)
- Average and deviation are calculated continually.

Manual Input and Modification of Samples

Samples can be inserted manually, and existing samples can be modified using the „Sample Input“ dialog box.

Manual Input of Samples

	Action	Result/Notes
1	On context-sensitive menu of the „Sample“ list box, select Sample .	The „Sample Input“ dialog box appears. Refer to Sample Input Dialog Box on page 7-72 .
2	Type the new sample name.	
3	Specify the data to the „Spectral“ or the „Coordinates“ tab, and click Save .	The new sample is inserted.



Note

You can copy an existing sample using the **Save As** button.

Modification of Samples



Note

Datacolor MATCH^{Textile} synchronizes color type and sample name. If you rename a color type, the sample name will also be modified. The same happens to the color type name if you change a sample name.

	Action	Result/Notes
1	On context-sensitive menu of the „Sample“ list box, select Sample .	The „Sample Input“ dialog box appears. Refer to Sample Input Dialog Box on page 7-72 .
2	Search and select the sample.	
3	Modify the data in the „Spectral“ or the „Coordinates“ tab, and click Save .	A warning appears.
4	Confirm the saving.	The sample is overwritten with the modified data.

Specifying Basic Data

The Basic Data application is used to manage basic data, e.g., substrates, dyestuffs, auxiliaries, etc. The basic data together with the colorant set definitions are prerequisites for the recipe calculation. The basic data is managed using property sheets. Basic data include:

- **Quality/Style:** Data related to the substrates.
- **Product:** Data related to the dyestuff and auxiliary.
- **Customer:** Data related to the customer.
- **Color Type:** Measured dye sample.
- **Parameters:** Definition of parameters with value ranges for the dyestuff properties.

Recommended Sequence of Basic Data Input

- 1 **Qualities/styles** with the related objects. Refer to [Specifying, Modifying or Deleting a Quality/Style on page 5-26](#).
- 2 **Products**. Refer to [Specifying, Modifying or Deleting a Product on page 5-34](#).
- 3 **Customers**. Refer to [Specifying, Modifying or Deleting Customers on page 5-39](#).
- 4 **Parameters**. Refer to [Specifying, Modifying or Deleting Parameters on page 5-40](#).
- 5 **Color Types**. Refer to [Specifying, Modifying or Deleting a Color Type on page 5-43](#).

If these data is defined, the colorant sets can be specified. Refer to [Specifying Colorant Sets on page 5-47](#).

Specifying, Modifying or Deleting a Quality/Style

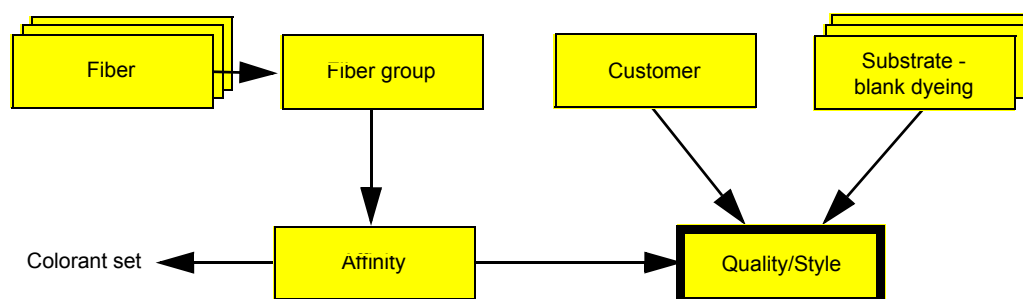


Note

The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

Quality/Style is a summary of all data in relation to the substrate and contains:

- Quality/style and substrate
- Affinity (quality/style subgroup)
- Fiber group
- Fiber
- Customer
- Substrate - blank dyeing
- Special composition.



Fiber Definition of all single fibers to be dyed.

Fiber group Definition of all fibers used for a quality/style. A fiber group can be a single fiber or a combination of different fibers, e.g., PES, PES/CO.

Affinity Definition of a link to a fiber group and the part of each fiber in %, e.g., PES = 60%, CO = 40%. Can be used for the relationship to the colorant set.

This link can be specified in the "Affinity" tab of the "Quality/Style Property" sheet, **if the colorant set is specified**. Refer to [Excluding/Including Colorant Sets from/into An Affinity on page 5-29](#).



Note

The affinity is used to group qualities/styles. Qualities/styles linked to the same affinity should have the same dye behavior or should be dyed with the same combined process.

Customer A customer can be assigned to each quality/style.

Substrate - blank dyeing Reflectance measurement of the substrate and quality/style effect factor.

Colorant set All related colorant sets are assigned per default. The list can be displayed using the **Search Colorant Set** button. In the list, colorant sets can be selected and excluded using the **Exclude** button.

Special composition

Used for altering the parts of a composed quality.

Example: In a composition of polyester, cotton and Lycra, the Lycra cannot be dyed. If you do not set the Lycra part to 0%, a recipe is also calculated for the Lycra part.

Special Composition for Quality/Style

Quality/Style: Mungo Stretch
Affinity: PES/CO/LYC 70/25/5

	Fiber Name	Fiber Part
1	Polyester	70.00
2	Cotton	25.00
3	Lycra	0.00

Buttons: Reset, Save, Close, SubstrateDelivery, Substrate - b

SpecialComp: ☒ Modify

Specifying A New Quality/Style

It is recommended to specify the objects in the following sequence:

- 1 Fiber
- 2 Fiber group
- 3 Affinity
- 4 Customer

**Caution**

When using the „Affinity SmartMatch“ matching method, it is imperative that only qualities with the same dye behavior are linked to an affinity. Otherwise, the results of matching will be unusable.

- 5 Quality/style
- 6 Substrate - blank dyeing

	Action	Result/Notes
1	Open the “Quality/Style Property” sheet.	Refer to Quality/Style Property Sheet on page 7-22 for information about the parameters.
2	Select the “Fiber” tab. Open the fiber list using the browse button. If the list is not complete, specify the additional fibers in the “Fiber” tab.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
3	Specify the fiber group.	Refer to Fiber Group Tab on page 7-25 .

- | | | |
|---|---|---|
| 4 | Affinity: If there is more than one fiber in the fiber group, specify the parts (in%, the summary must be 100%) of the single fibers. | |
| 5 | In the "Affinity" tab, exclude colorant set(s), if requested. | Refer to Excluding/Including Colorant Sets from/into An Affinity on page 5-29 . |
| 6 | Specify the data of the "Quality/Style" tab and click Insert . | If requested, refer to Using SmartMatch Points for other Qualities on page 5-31 .

The quality/style is created. The Substrate - Blank Dyeing and the Substrate Delivery are activated. |
| 7 | If the Substrate - Blank Dyeing button is activated, you have not measured a substrate. Click Substrate - Blank Dyeing to measure the first substrate delivery.

If you have to measure a new substrate delivery, click Substrate Delivery . | The "Substrate Delivery Dialog" box appears. Refer to Substrate Delivery Dialog Box on page 7-27 for information about the parameters.

Refer to Substrate Delivery: Example on page 5-30 for an example. |
| 8 | Measure a sample of the delivered substrate. | Refer to Calibrating Your Spectrophotometer on page 5-10 and Measurement on page 5-20 . |
| 9 | Click Save . | The new quality/style is created. |


**Note**

Fields marked with a red * are mandatory.

Excluding/Including Colorant Sets from/into An Affinity

**Note**

The possible links from colorant sets to affinities are not displayed immediately if you scroll through the list of affinities. Instead, click the **Search Colorant Sets**

 button to see which links are defined or excluded (marked with an *).

It can take several minutes to find all colorant sets valid for an affinity, depending on the number of items in the database. The list of affinities and colorant sets is filtered to avoid the definition of incorrect links.

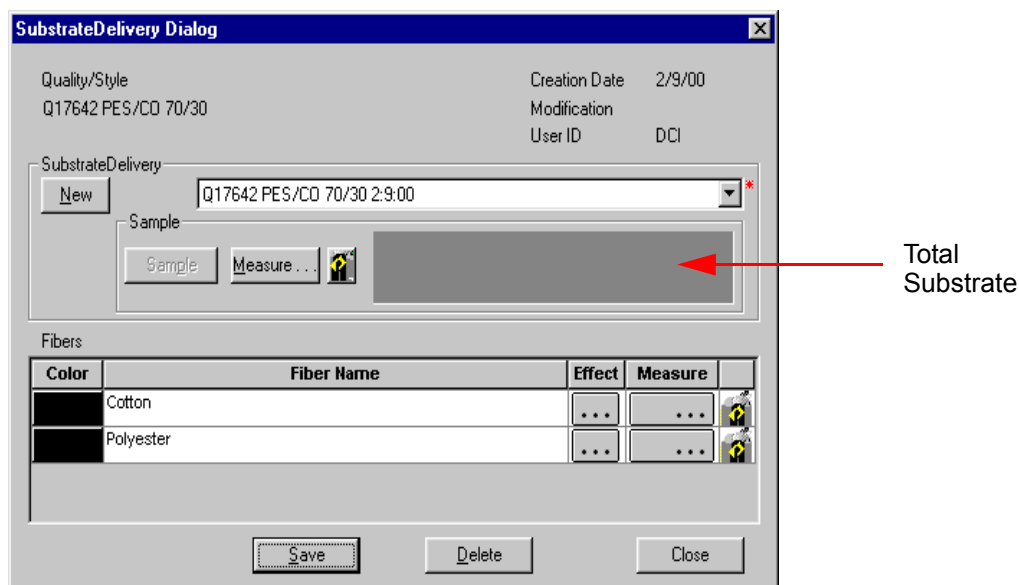
Action	Result/Notes
1	<p>Exclude: Select an included colorant set (not marked with an *) and click Exclude.</p> <p>Include: Select an excluded colorant set (marked with an *) and click Include.</p>

**Note**

The number of colorant sets linked to the current affinity is displayed under "Total."

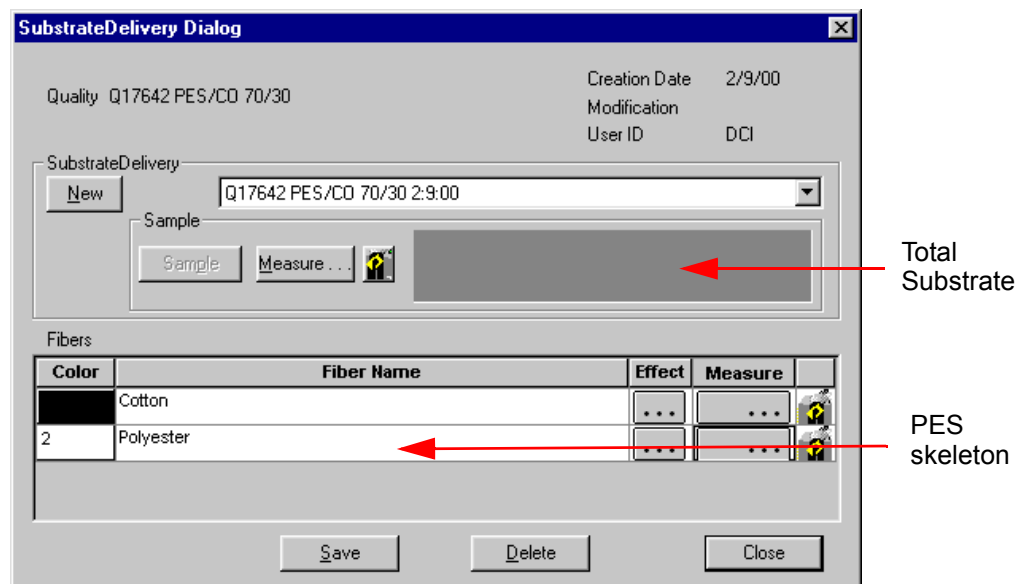
Substrate Delivery: Example

Example for Blends PES/CO 70/30. Refer to [Substrate Delivery Dialog Box](#) for more information.



If you want to measure only the total substrate, it is sufficient to do it only once. No measurements are needed for an individual fiber.

If you have burned out the cotton, you can measure the polyester skeleton, pressing the **Measure** button in the fiber row "Polyester."



In the example above, the total substrate is measured and stored with the substrate delivery and the polyester skeleton is stored together with the substrate delivery fiber "Polyester." These substrate delivery measurements are used for recipe calculations.



Note

- If it is possible to separate all fibers, you can measure all.
- The **Measure** buttons become inactive if the substrate delivery is linked to a recipe.

Substrate Delivery with Colorant Set Dependent Effects

Substrate deliveries can be used with colorant (dye) set dependent effects:

	Action	Result/Notes
1	In the „Substrate Delivery“ dialog box, click the Effect button.	The „Substrate Delivery Effect“ dialog box appears. Refer to Substrate Delivery Effect Dialog Box .
2	Select the colorant set(s) (colorant set) and click Insert .	The selected colorant set is added to the table.
3	Type the requested effect into the „Effect“ column.	
4	Click Close .	The „Substrate Delivery Effect“ dialog box closes.

SubstrateDelivery
Q17642 PES/CO 70/30-1

	Fiber Name	Dyeset	Effect
1	Cotton	Levafix SPB (Soda)	1
2	Cotton	Remazol SPB (Silicate)	1

Insert an new Effect for a Dyeset

Remazol SPB (Silicate) [Insert]

[Save] [Delete] [Close]

Using SmartMatch Points for other Qualities

- Check „Use Affinity SmartMatch“, if SmartMatch points of all the qualities linked with the same affinity should be used.



Caution

When this method of SmartMatch matching, it is imperative that only qualities with the same dye behavior are linked to an affinity. Otherwise, the results of matching are unusable.

Overwriting Measurements of Substrate Deliveries



Note

Overwriting a measurement of a substrate delivery is only possible if the substrate delivery is not linked to other data such as recipes etc. If a sample is linked to a recipe and the measurement is not correct, you will have to delete the recipe, correctly re-measure the sample and calculate the recipe again.

Example:

The example shows two screenshots of the **SubstrateDelivery Dialog** and a **ColorLab** warning dialog.

Top Screenshot: The **SubstrateDelivery Dialog** shows the **Sample** field with the value "55PES/45CV Libero Automn - Normal Substr./B". The **Fibers** table has two rows: "Polyester" and "Viscose". The **Measure** button for "Viscose" is highlighted with a red arrow. A red arrow points to the **Sample** field with the text: "The total substrate is correct." Another red arrow points to the **Measure** button for "Viscose" with the text: "The measurement for viscose is not correct."

Bottom Screenshot: The **SubstrateDelivery Dialog** shows the **Measure** button for "Viscose" being clicked. A **ColorLab** warning dialog appears with the text: "Do you really want to save the new measurement ? Old Fiber sample name: 55PES/45CV Libero Automn - Normal Substr./B - VI." The **Yes** button is highlighted with a red arrow. A red arrow points to the **Measure** button for "Viscose" with the text: "1 Click the **Measure** button and confirm the question in the warning."

Bottom Screenshot: The **SubstrateDelivery Dialog** shows the **Measure** button for "Viscose" being clicked. A **ColorLab** warning dialog appears with the text: "Do you really want to save the new measurement ? Old Fiber sample name: 55PES/45CV Libero Automn - Normal Substr./B - VI." The **Yes** button is highlighted with a red arrow. A red arrow points to the **Measure** button for "Viscose" with the text: "You can now overwrite the measurement of the substrate delivery."

Modifying and Deleting A Quality/Style

	Action	Result/Notes
1	Open the "Quality/Style Property" sheet.	Refer to Quality/Style Property Sheet on page 7-22 for information about the parameters.
2	Modifying: Select the quality/style, alter the data, and click Save . You can specify an additional substrate using the "Substrate Delivery" button. Deleting: Select the quality/style, click Delete , and confirm the deletion.	

Deletion of substrate delivery samples



Note

- If you delete a substrate delivery from the quality, you can also delete the reflectance sample. Check the corresponding check box.
- If you delete a substrate delivery in the explorer view, the sample is not deleted.
- Remember that the substrate delivery can only be deleted if there is no link to other data.

Specifying, Modifying or Deleting a Product

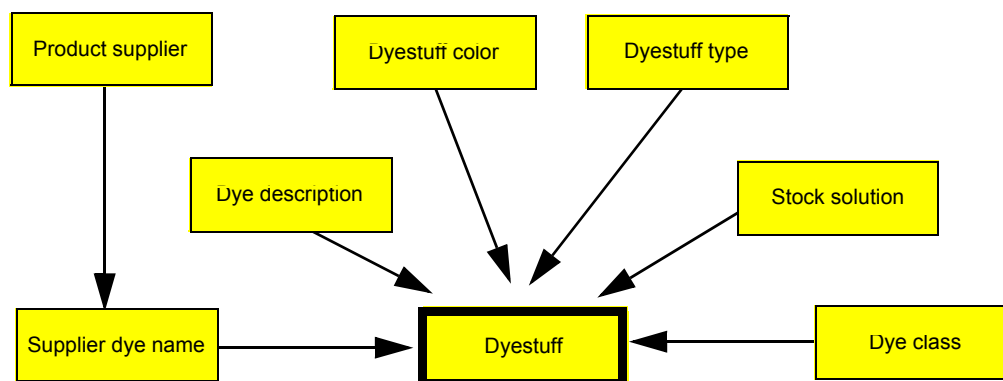


Note

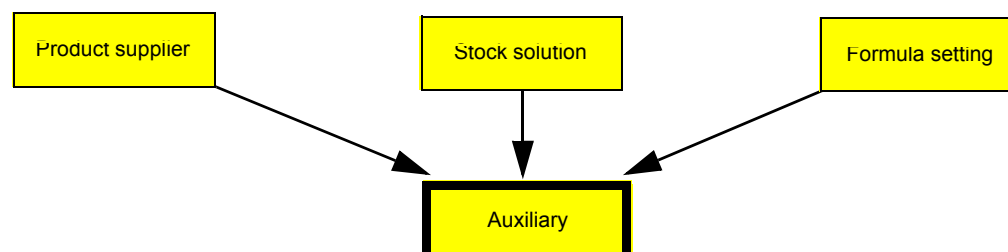
The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

A Product is either a dyestuff or an auxiliary.

Dyestuff



Auxiliary



Product supplier	Supplier-specific data, e.g., name, address, phone number.
* Supplier dye name	Dye name of the supplier, e.g., Remazol, Terasil, etc.
Stock solution	Definition of different dilutions used for optimizing the accuracy of manual dyestuff pipetting and to prevent that the maximum of the dye solution is to be exceeded.
* Dyestuff type	Type of the delivered dyestuff, e.g., conc, gran., supra.
Dye class	Classification of dyes according to the chemical composition and reaction, e.g., disperse, reactive.
* Dye description	Additional description of the dye, e.g., brilliant, dark.
* Dyestuff color	Color names, e.g., red, green, blue.
Formula setting	Settings for recipe calculation used for production: e.g. default unit.
* Supplier dye name, dyestuff type, dye description, and dyestuff color can be used to compose the product name.	

Specifying A New Product

It is recommended to specify the subordinate objects first.



Note

- The stock solution defines dilutions used to optimize pipetting in the laboratory. Refer to [Specifying A Stock Solution on page 5-36](#) for new stock solution tables.
- Stock solutions can be specified for dyestuffs and auxiliaries, for “exhaust” and “continuous” processes.
- Stock solutions are only selectable if the “Stock Solution” is checked in the “Options” dialog box.

	Action	Result/Notes
1	Open the “Product Property” sheet.	Refer to Product Property Sheet on page 7-31 for information about the parameters.
2	Specify the parameters of a new dyestuff in the “Dyestuff” tab or the parameters for a new auxiliary in the “Auxiliary” tab. The other tabs are used to specify new subordinate objects.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
3	Click Insert .	The new product is created.



Note

Fields marked with a red * are mandatory.

Modifying and Deleting A Product

	Action	Result/Notes
1	Open the “Product Property” sheet.	Refer to Product Property Sheet on page 7-31 for information about the parameters.
2	Modifying: Select the product, alter the data, and click Save . Deleting: Select the product, click Delete , and confirm the deletion.	

Specifying A Stock Solution



Note

- The stock solution defines dilutions used to optimize pipetting in the laboratory.
- Stock solutions can be specified for dyestuffs and auxiliaries, for “exhaust” and “continuous” processes.
- Stock solutions are only selectable if the “Stock Solution” is checked in the “Options” dialog box.

Action	Result/Notes
1	In the “Stock Solution” of the “Product Property” sheet, specify a name for the new stock solution. Refer to Stock Solution Tab on page 7-41 for information about the parameters.
2	Insert the values according to your needs.
3	Click Insert . The new stock solution is created.



Note

Fields marked with a red * are mandatory.

Specifying, Modifying or Deleting a Dye Process



Note

The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

The dye process contains dye class and process type.

Specifying A New Dye Process

	Action	Result/Notes
1	Open the "Dye Process Property Sheet."	Refer to Dye Process Property Sheet on page 7-29 for information about the parameters.
2	Specify name and identification of the new dye process.	
3	Specify the parameters of the "Dye Process" and the "Process Factor" tabs.	Refer to Specifying dye fiber groups on page 5-37 , Browse and Selecting on page 5-2 , and Specifying, Modifying and Deleting Objects on page 5-8 .
4	Click Insert .	The dye process is created.

Specifying dye fiber groups

	Action	Result/Notes
1	In the table of the "Dye Process" tab (Dye Process Property Sheet), double-click into an empty row.	The "Dye Fiber Group for Dye Process" dialog box appears.
2	Select the fiber(s) that can be dyed in the same bath, and click OK .	The dialog box closes and the selected fiber(s) are displayed in the table row.
3	Repeat steps 1 and 2 to define additional dye fiber groups.	Refer to the note below .



Note

- Each row defines a dye fiber group to be dyed in the same bath.

Enter the Dyefibergroups. (Group of fiber[s] dyed in the same bath.

	Fibers(s)	
1	CO	MO
2	VI	
3	CO	
4		

- Fields marked with a red * are mandatory.

Modifying and Deleting A Dye Process

Action	Result/Notes
1 Open the "Dye Process Property Sheet."	Refer to Dye Process Property Sheet on page 7-29 for information about the parameters.
2 Modifying: Select the dye process, alter the data, and click Save . Deleting: Select the dye process, click Delete , and confirm the deletion.	

Specifying, Modifying or Deleting a Dye Class

Specifying A New Dye Class

Action	Result/Notes
1 Open the "Dye Class" tab of the "Product Property Sheet."	Refer to Dye Class Tab on page 7-36 .
2 Specify name and identification of the new dye class.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
3 If necessary, specify the parameters in the table.	Refer to General table functions on page 5-7 .
4 Click Insert .	The dye class is created.



Note

Fields marked with a red * are mandatory.

Modifying and Deleting A Dye Class

Action	Result/Notes
1 Open the "Product Property Sheet."	Refer to Dye Process Property Sheet on page 7-29 for information about the parameters.
2 Modifying: Select the dye class, alter the data, and click Save . Deleting: Select the dye class, click Delete , and confirm the deletion.	

Specifying, Modifying or Deleting Customers

The customer data contains name, identification, tolerance details, and status.

Specifying A New Customer

Action	Result/Notes
1 Open the "Customer Property Sheet." Refer to Customer Property Sheet on page 7-43 for information about the parameters.	
2 Specify name, identification, and data of the new customer.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
3 Click Insert .	The data of the new customer is created.
4 Click the Address button.	The "Address" dialog box appears Refer to Address Dialog Box on page 7-44 .
5 Specify the address, and click Save and Close .	The address is inserted and the "Address" dialog box closes.



Note

Fields marked with a red * are mandatory.

Modifying and Deleting A Customer

Action	Result/Notes
1 Open the "Customer Property" sheet.	Refer to Customer Property Sheet on page 7-43 for information about the parameters.
2 Modifying: Select the customer, alter the data, and click Save . Deleting: Select the customer, click Delete , and confirm the deletion.	

Specifying, Modifying or Deleting Parameters

The parameter values (e.g. "fastness") are defined in a colorant set for each dye, and used to set limits for the recipe calculation.

Specifying A Parameter

	Action	Result/Notes
1	Open the "Parameter Definition Dialog" box.	Refer to Parameter Definition Dialog Box on page 7-57 for information about the parameters.
2	Specify the parameter name, the type, and the values.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
3	Click Insert .	The data of the new Parameter is created.



Note

- The "Formula Setting" button is used for production. Datacolor MATCH^{Textile} uses only the **Calculate without Print** button to exclude the parameters from printing.
- Fields marked with a red * are mandatory.

Modifying and Deleting A Parameter

	Action	Result/Notes
1	Open the "Parameter Definition Dialog" box.	Refer to Parameter Definition Dialog Box on page 7-57 for information about the parameters.
2	<p>Modifying: Select the parameter, alter the data, and click Save.</p> <p>Deleting: Select the parameter, click Delete, and confirm the deletion.</p>	

Parameter Examples

Parameter type “String Value”

The dialog box 'Parameter Definition' shows the configuration for a parameter. The 'Name' field contains 'Lightfastness 1/1'. The 'ID' field contains 'L 1/1'. The 'Creation Date' is '6/22/99', 'Modification' is blank, and 'User ID' is 'DCI'. The 'Parameter Type' is set to 'String value'. The 'Unit' field is empty. There is a 'Note' text area at the bottom. Buttons for 'Save', 'Delete', 'Clear', and 'Close' are present.

This fastness parameter is used in the colorant set program:

A snippet from the colorant set program showing a table with columns for colorant ID, name, ID, a checkbox, and a value. The row for 'Lightfastness 1/1' has a value of 5.

2	Lightfastness 1/1	L 1/1	<input checked="" type="checkbox"/>	5

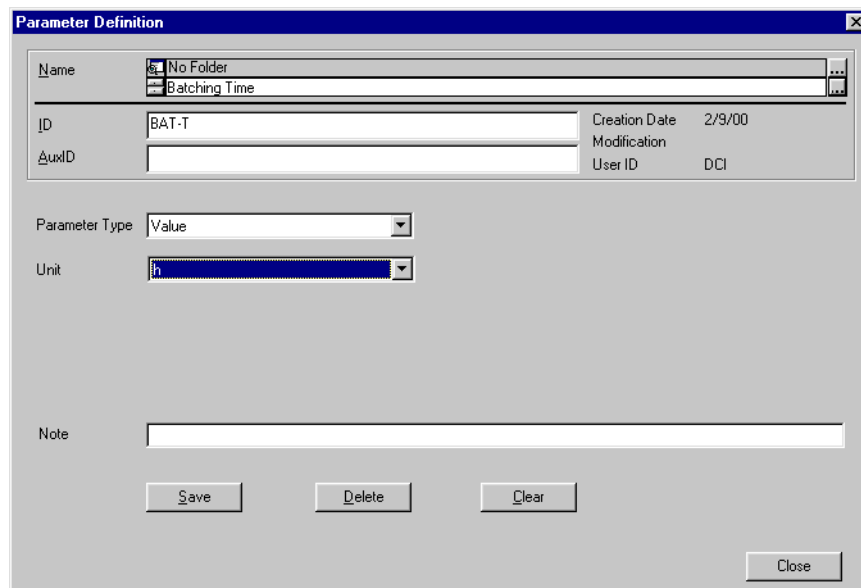
Parameter type “List Box”

The dialog box 'Parameter Definition' shows the configuration for a parameter. The 'Name' field contains 'Colored discharge dark'. The 'ID' field contains 'COL DISCH D'. The 'Creation Date' is '6/22/99', 'Modification' is blank, and 'User ID' is 'DCI'. The 'Parameter Type' is set to 'Listbox'. The 'Unit' field is empty. A 'Text List' table is shown with three items: '1 Yes', '2 Partly', and '3 No'. There is a 'Note' text area at the bottom. Buttons for 'Save', 'Delete', 'Clear', and 'Close' are present.

This fastness parameter is used in the colorant set program:

A snippet from the colorant set program showing a table with columns for colorant ID, name, ID, a checkbox, and a list box. The row for 'Colored discharge dark' has a value of 'Yes'.

10	Colored discharge dark	COL DISCH D	<input checked="" type="checkbox"/>	Yes Partly No

Parameter type "Value"

The image shows a 'Parameter Definition' dialog box with the following fields and controls:

- Name:** A text field containing 'No Folder' and 'Batching Time'.
- ID:** A text field containing 'BAT-T'.
- AuxID:** An empty text field.
- Creation Date:** A text field containing '2/9/00'.
- Modification:** An empty text field.
- User ID:** A text field containing 'DCI'.
- Parameter Type:** A dropdown menu set to 'Value'.
- Unit:** A dropdown menu set to 'in'.
- Note:** An empty text area.
- Buttons:** 'Save', 'Delete', 'Clear', and 'Close'.

This parameter is used for a rule: The batching time depends on a combined process.

Specifying, Modifying or Deleting a Color Type

Measured color pattern. A color type is substrate-independent.
A color type is a standard and can be linked to a recipe.

Specifying A New Color Type

	Action	Result/Notes
1	Open the "Color Type Property Sheet."	Refer to Color Type Property Sheet on page 7-45 for information about the parameters.
2	Specify the name and the additional parameters.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
3	Measure the sample.	Refer to Measurement on page 5-20 .
4	If the measurement is finished, click Insert .	The data of the new color type is created.



Note

Fields marked with a red * are mandatory.

Modifying and Deleting A Color Type



Note

Datacolor MATCH^{Textile} synchronizes color type and sample name. If you rename a color type the sample name is also modified. The same happens to the color type name if you change a sample name.

	Action	Result/Notes
1	Open the "Color Type Property" sheet.	Refer to Color Type Property Sheet on page 7-45 for information about the parameters.
2	Modifying: Select the color type, alter the data, and click Save . Deleting: Select the color type, click Delete , and confirm the deletion.	

Specifying, Modifying or Deleting Tolerances

Specifying A New Tolerance

	Action	Result/Notes
1	Open the "Tolerance Block Program" dialog box.	Refer to Tolerance Block Program Dialog Box on page 7-46 for information about the parameters.
2	Specify the tolerance name	
3	Select the requested tab and specify the tolerance values. For Datacolor pass/fail formula refer to the following section.	Refer to Browse and Selecting on page 5-2 and Specifying, Modifying and Deleting Objects on page 5-8 .
4	Click Save .	The new tolerance is created.

Datacolor pass/fail formula

	Action	Result/Notes
1	Select the "Datacolor" tab.	
2	Specify the tolerance name	
3	<ul style="list-style-type: none"> Click Datacolor Block Training for tolerance block calculation based on visually excepted standards and the related batches. 	<p>The "Datacolor Tolerance Block" dialog box appears. Refer to CieLab Tab on page 7-47 for information about the parameters.</p>
	<ul style="list-style-type: none"> For changing the formula, click Diff. Formula and select the formula. 	The „Select Difference Formula“ dialog box appears.
	Select or measure the standard and the related batches.	In the table, the batches are listed. All batches with a CMC color difference ≤ 1 are selected automatically. Click the refused batches to select.
	Select other colors (standards and batches) to specify a color-independent tolerance block.	Select at least all colors you want to proof to get a useful tolerance block.
	Click Apply .	The „Datacolor Tolerance Block“ dialog box closes.
	<ul style="list-style-type: none"> Click Block Manual Input for a manual input of tolerance values. 	<p>The „Manual Input of Tolerance Values“ dialog box appears Refer to Manual Input of Tolerance Values Dialog Box on page 7-56 for information about the parameters.</p>
	Select or measure the standard and specify the tolerance values.	
	Click Apply	The "Manual Input Tolerance Values" dialog box closes.
4	Click Save .	The new tolerance is created.

**Note**

A Datacolor tolerance block can be modified by adding more standards and batches.

Displaying Datacolor Tolerance Values

	Action	Result/Notes
1	Select the requested "Datacolor" tolerance.	
2	Click Tolerance Values .	The "Tolerance Value Output" dialog box appears. Refer to Tolerance Block Program Dialog Box on page 7-46 .
3	Select or measure the requested batch.	The tolerance values are displayed.

Modifying and Deleting Tolerance Values

	Action	Result/Notes
1	Open the "Tolerance Block Program" dialog box.	Refer to Tolerance Block Program Dialog Box on page 7-46 for information about the parameters.
2	Modifying: Select the tolerance, alter the data, and click Save . Deleting: Select the tolerance, click Delete , and confirm the deletion.	

Specifying Colorant Sets

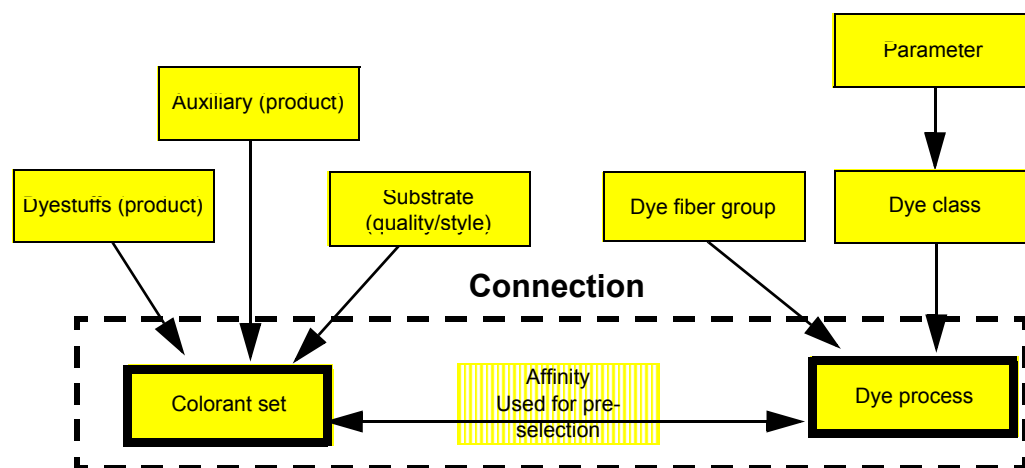
**Note**

The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

Introduction

A colorant set is a set of color information about the substrate and dyes the system uses to produce match and correction recipes. It contains...

- information about the overall colorant set, e.g., the substrate and process that will be used with the dyes;
- product information about each dye, e.g., strength, minimum and maximum concentrate;
- color information about each dye;



Specifying A Colorant Set

Action	Result/Notes
1 Open the "Colorant Set List" window.	
2 On the "Colorant Set" or the context-sensitive menu, select New → Textile .	<p>The "Colorant Sets" window appears.</p> <p>Refer to Colorant Set Window on page 7-77 for information about the parameters.</p> <p>For the colorant set type ...</p> <ul style="list-style-type: none"> • „Textile, Alternate Substrate“ refer to Specifying A Colorant Set for An Alternate Substrate on page 5-55. • „Textile Printing with Dyes“: In addition, an extender must be selected. Refer also to Completing An Imported Textile Printing Colorant Set on page 5-57.
3 Specify the name and the identification of the new colorant set.	Refer to Browse and Selecting on page 5-2 and Specifying objects on page 5-9 .
<p>4 A click in the „Dye Process“, „Substrate Delivery“ and „Operation“ field opens the corresponding selection box.</p> <p>Select Input Form on the context-sensitive menu of the selection box to specify a new object.</p>	Refer to Specifying, Modifying and Deleting Objects on page 5-8 .
5 Click Store .	<p>The new colorant set is created.</p> <p>The fiber is saved as a "Dye Fiber Group" in the dye process.</p> <p>Continue with Specifying Colorants and Calibration Samples on page 5-50.</p>



Note

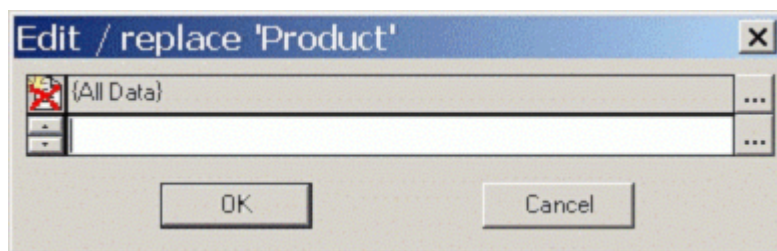
If you want to store the auxiliaries used for the calibration dyeings, you can define an auxiliary recipe before you start to prepare dyestuffs. These auxiliaries are used for all dyestuffs added to the colorant set later on. If the concentration of a product depends on the dyestuff concentration, however, you must adjust it individually.

Refer to [Auxiliary Recipes on page 5-49](#).

Auxiliary Recipes

If you want to store the auxiliaries used for the calibration dyeings, you can define an auxiliary recipe before you start to prepare dyestuffs. These auxiliaries are used for all dyestuffs added to the colorant set later on. If the concentration of a product depends on the dyestuff concentration, however, you must adjust it individually.

	Action	Result/Notes
1	In the "Colorant Sets" window, click Auxiliary Recipe .	The „Introduce Your Complementary Components in Calibration Series“ dialog box appears.
2	Click New to select or specify a product.	The corresponding selection box appears.



- | | |
|--|--|
| <p>3 Select the product and click OK.
To specify a new product, select Input Form on the context-sensitive menu of the selection box.</p> <p>4 Select the corresponding field and press the space bar to specify the values.</p> | <p>The unit is set automatically if a default unit is specified for the selected product in the „Formula Setup“ dialog box.</p> <p>Refer to Product Property Sheet on page 7-31 and Formula Setting Dialog Box on page 7-42</p> |
| <p>5 Click OK if finished.</p> | <p>The auxiliaries are displayed for each calibration sample in the „Components of One Calibration Series“ dialog box. You can change the concentration or add other auxiliaries here. These modifications are only valid for the selected calibration dyeing. Refer to Specifying Colorants and Calibration Samples on page 5-50.</p> |

Specifying Colorants and Calibration Samples

Action	Result/Notes
1 If the header information is filled in and an auxiliary recipe is defined, click New to add colorants to the colorant set.	The „Create Calibration Series“ dialog box appears. Refer to Create Calibration Series Dialog Box on page 7-82 .
2 Select the colorant you want to calibrate. If the colorant is new, click New to specify a dyestuff.	Refer to Specifying A New Product on page 5-35 .
3 Type in the concentrations of your calibration samples, separated by a blank or a comma.	The colorant name plus the concentration is used for sample name (field „Sample“). You can modify the sample name in the „Prefix“ field.
4 Click Measure to measure the calibration samples.	
5 If all calibration samples have been measured, press Accept to return to the „Colorant Set“ window.	The K/S values are calculated automatically using the default method „Measured“.

If you open a Colorant set containing colorants not calibrated, a message box appears for a few seconds when you open the colorant set the next time.



Note

- You can select a range of colorants. Click **Accept** to save the colorants without measuring the calibration samples. The colorants are saved to the colorant set.
- -1.0000 and a red background color in the dE field indicate that no calibration samples are assigned to the colorant.
- If you click one of the colorants without calibration samples, the „Create Calibration Series“ dialog box appears and you can select the calibration samples from the database or measure the samples.
- If you open a colorant set containing colorants that are not calibrated, a message box appears for a few seconds.

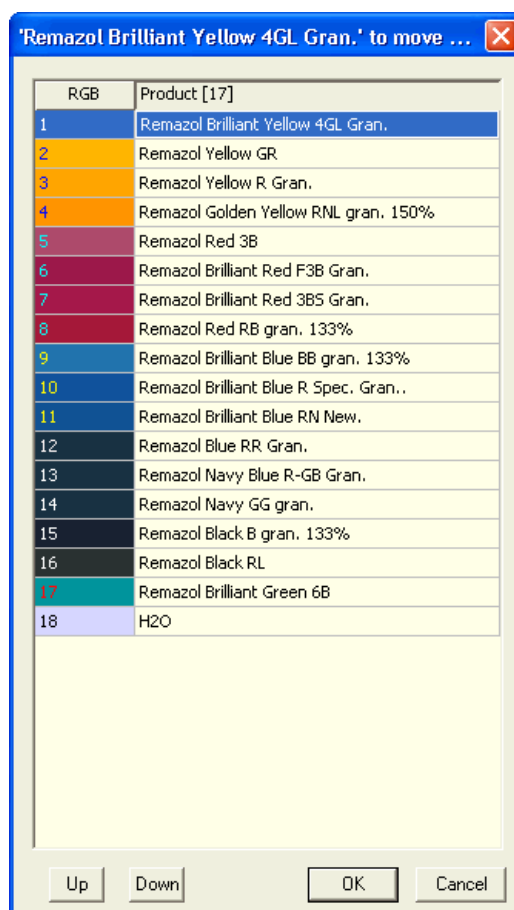
Re-measure, Deleting or Move Calibration Samples

The calibration samples are listed automatically by ascending concentration.

	Action	Result/Notes
1	Select the calibration sample and open the context-sensitive menu.	
2	Select the requested action.	The move works like the moving of colorants. Refer to Moving Colorants on page 5-51 .

Moving Colorants

	Action	Result/Notes
1	Select the required colorant and move it using the Up and Down buttons.	



- Repeat the actions 1 to 2 until all colorants are placed correctly.
- Click **OK**.
The new sequence of the colorants is saved.

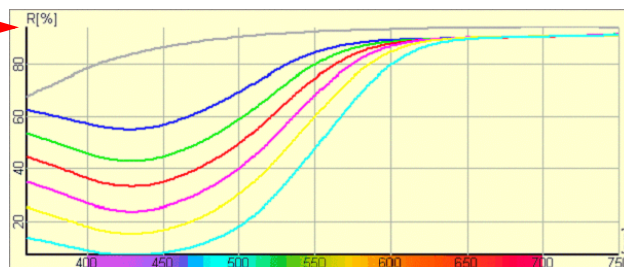
Using the Graphical Display

Click anywhere in the green fields of the Product control grid to obtain the context-sensitive menu for all graphical options.

Examples

RGB	Product [S]	Created	Modified	dE	Min Conc	Max Conc	Interpol.	tony	bs.	Strength
	RNL gran 150% Golden Yellow Remazol	28.01.2002 14:56:26	28.01.2002 14:56:26	0.000	0.000	50.000	Measured		7	100.000
	B gran 133% Black Remazol			-1.000	0.000	0.000	Measured			100.000
	BB gran 133% Brill Blue Remazol			-1.000	0.000	0.000	Measured			100.000
	GG gran Navy Blue Remazol			-1.000	0.000	0.000	Measured			100.000

R vs. wavelength
K vs. wavelength
K vs. concentration at maximum value
log K vs. concentration at maximum value
Fix your wavelengths
Show tables
Show/edit parameters
KS : relative strength
KS : absolute Strength
Add colorant
Move colorant
Delete colorant
Compare with another colorant
Use 2 graphs



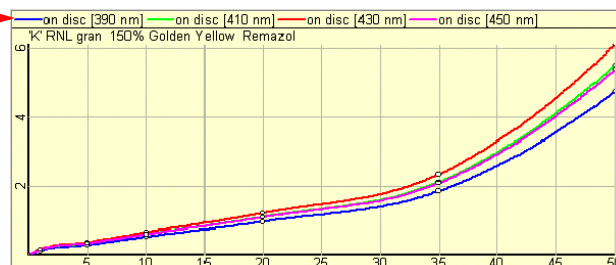
Wavelength	c[0]	c[1]	c[5]	c[10]	c[20]	c[35]	c[50]
K[360]	0.0000	0.0825	0.2451	0.4820	0.9253	1.8116	4.7093
K[370]	0.0000	0.0983	0.2609	0.4979	0.9412	1.8274	4.7251
K[380]	0.0000	0.1108	0.2734	0.5104	0.9536	1.8399	4.7376
K[390]	0.0000	0.1214	0.2840	0.5210	0.9643	1.8505	4.7483
K[400]	0.0000	0.1300	0.2926	0.5296	0.9729	1.8591	4.7568
K[410]	0.0000	0.1487	0.3313	0.5971	1.1002	2.1212	5.5059
K[420]	0.0000	0.1619	0.3560	0.6420	1.1859	2.2975	5.9959
K[430]	0.0000	0.1669	0.3651	0.6558	1.2113	2.3458	6.1050
K[440]	0.0000	0.1636	0.3574	0.6413	1.1791	2.2746	5.9030

Selecting wavelength... x

Wavelength at maximum 430

Wavelength [nm]	Maximum
390	4.7
400	4.8
410	5.5
420	6.0
430	6.1
440	5.9
450	5.4
460	4.6
470	3.9

Show End



Using two graphs

This option shows two graphs boxes with either graphical displays of two products or two different graph types for one product. The option toggles between one and two graphical displays.

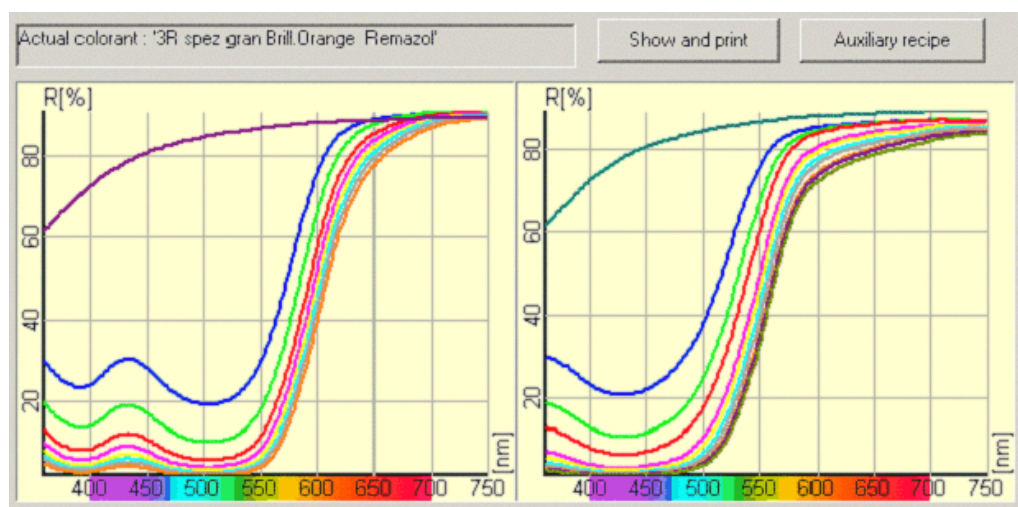


Note

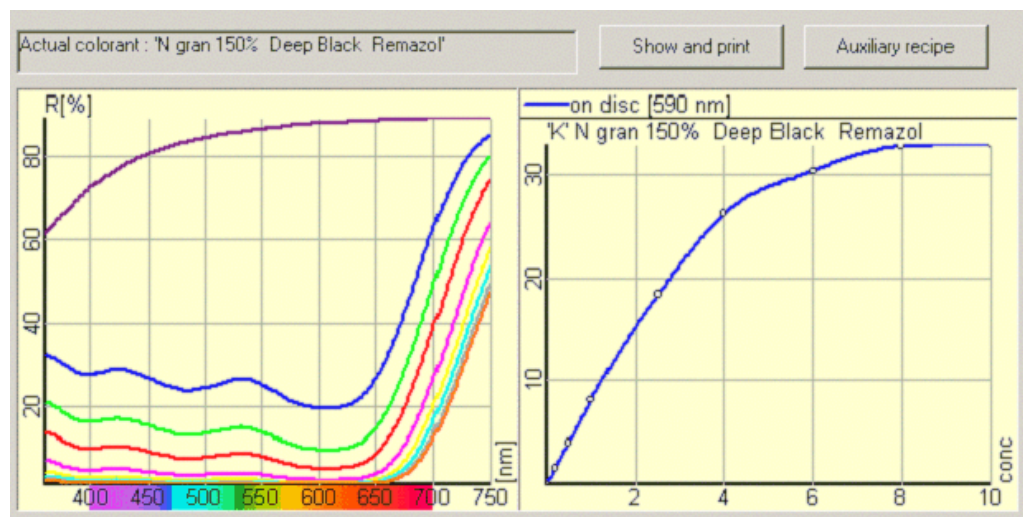
The function „Use 2 graphs“ works only if a graph is being displayed, e.g., if you have selected the function „Show tables“, the function „Use 2 graphs“ does not work.

Examples

The left graph always shows the curves of the currently selected colorant.
The right graph shows the curves of the previously selected colorant.



You can display two different types of curves for one colorant.



Remove A Dyestuff from A Colorant Set



Note

Generally, you can only remove a colorant from a colorant set if the colorant (as a component of this colorant set) is not linked to other data.

Action	Result/Notes
1	Select the colorant and open the context-sensitive menu.
2	Select Delete Colorant . The program checks whether the colorant is linked to other data and removes it from the colorant set if there are no links. If the dyestuff is linked, a dialog box with the names of the first 20 linked items appears. Click Show All to search the entire database for linked data. This may take some time. All linked data will be listed when the search process is finished. If you are sure that the colorant should be removed from the colorant set, click Delete All to delete all linked data now. Linked data could be: current recipes, matching tables, correction tables and SmartMatch points. Caution: You cannot undo this action.

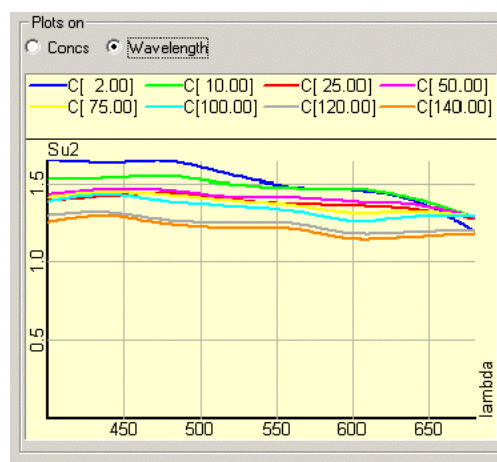
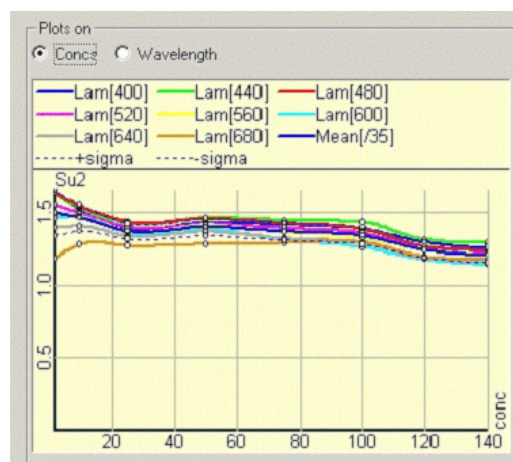
Specifying A Colorant Set for An Alternate Substrate



Note

This function can build a colorant set with information based on a few calibration dyeings made on the new substrate. The colorant should cover the complete spectrum in order to generate enough information about the colorant build-up on the new substrate. The calculation of the „correlated“ colorant set is based on an existing colorant set and on the information calculated from the calibration dyeings on the new substrate. The quality of such a colorant set depends strongly on a similar dyeing behavior of all colorants to the colorant used to calculate the correlation parameters.

Action	Result/Notes
1 Open the “Colorant Set List” window.	
2 On the “Colorant Set” or the context-sensitive menu, select New → Textile, Alternate Substrate .	The „Alternate Substrate Information“ dialog box appears. Refer to Alternate Substrate Information Dialog Box on page 7-84 .
3 Select the reference colorant set.	The best colorant for calibration is automatically selected.
4 Select or specify the new substrate.	
5 Click Sample to measure the calibration samples.	The „Create Calibration Series“ dialog box appears. Refer to Create Calibration Series Dialog Box on page 7-82 .
6 Select the calibration samples from the database or measure them.	
7 Click Accept .	The „Create Calibration Series“ dialog box closes. Results are displayed in the graph and in the table.
8 Check the results.	Refer to Review of the results on page 5-56 .
9 Click Accept , if the results are OK.	The new „correlated colorant set“ is created when you accept the correlation data. The type of interpolation is set to “Correlated” for all colorants. The dE shows the red background color because there are no calibration samples. The colorant set is ready to be used for matching.

Review of the results**Graphs:****Scattering versus concentration**

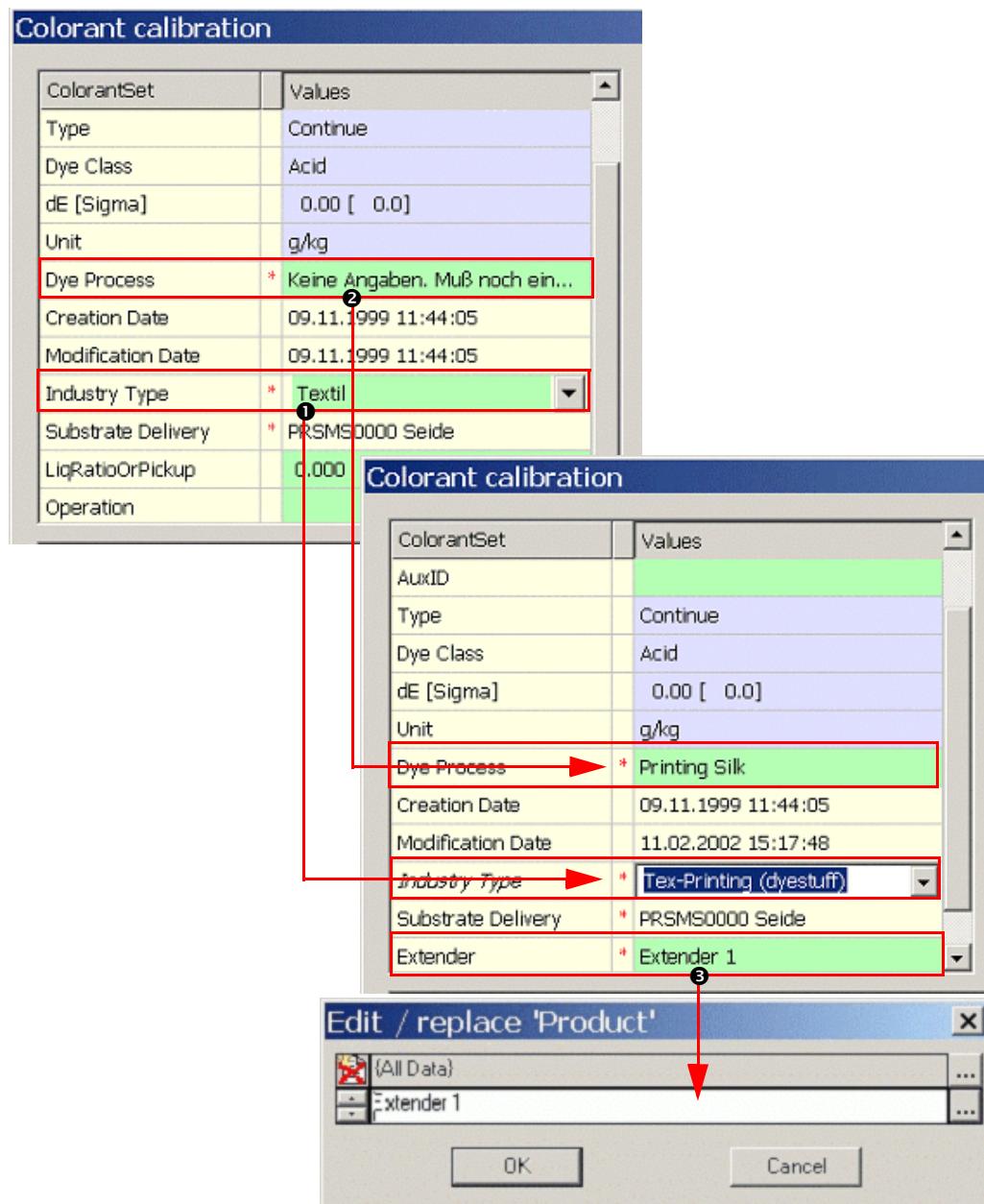
The smaller the standard deviation of the scattering, the better the correlated data.

Table:

- The columns dE2* and dE Model2* are normally empty. They are only filled in if the calibration series (colorant set) of the new substrate exists for the same colorants as the ones to be correlated. In this case, you will be given information about the quality of the correlation. Refer to [Alternate Substrate Information Dialog Box on page 7-84](#).
- The dE1* is the mean CIELab color difference of the colorants in the source colorant set.
- The dE2* is the mean CIELab color difference of the colorants in the colorant set for the alternative substrate (does not exist normally).
- The dE Model2* represents the mean CIELab color difference and standard deviation for the correlated data.

Completing An Imported Textile Printing Colorant Set

The extender used by Datamatch printing colorant sets is not transferred during database conversion. These colorant sets can be completed in Datacolor MATCH^{Textile} with the „colorant set“ program if the extender should be used in recipe calculation. The extender is a normal product with price etc. It is printed in the laboratory recipe printout in the matching program.



- ❶ The „Industry Type“ of a printing colorant set - imported from Datamatch during database conversion - has the value „Textile“. You can now change the type to „Tex. Printing (dyestuff)“.
- ❷ Do not forget to select a process; continuous processes are used for printing colorant sets.
- ❸ The program asks for an extender as soon as you select „Tex. Printing (dyestuff)“ as „Industry Type“. Select or specify one.

The program completes all the calibration components automatically, and calculates the concentration of the extender. If the unit is g/kg, this is the addition to 1000:

$$\text{Conc. Colorant} \cdot 1000 = \text{Conc. Extender}$$

Examples

Components in one calibration serie

Product [2]	Type	Concentration	Unit
GL Turquoise Sirius	Colorant	0.750	g/kg
Extender 1	Extender	999.250	g/kg
New		1000.000	

Product [2]	Type	Concentration	Unit
GL Turquoise Sirius	Colorant	30.000	g/kg
Extender 1	Extender	970.000	g/kg
New		1000.000	



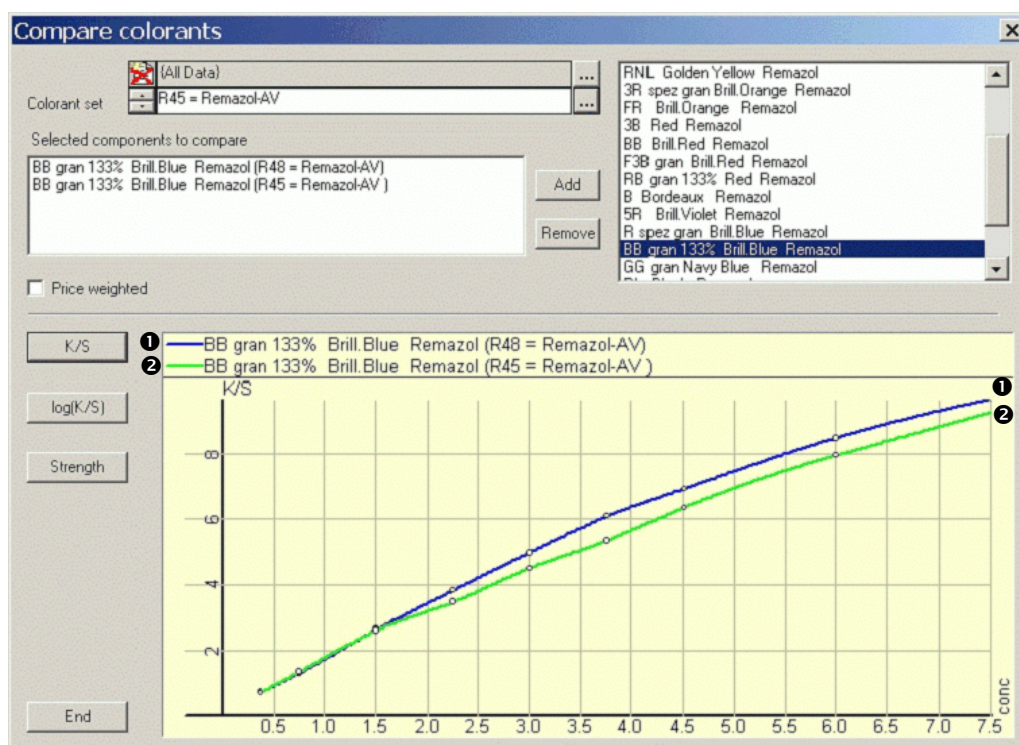
Note

You must recalculate all colorants of the colorant set. If they have all been calculated with the same method (measured or smoothed), you can click **All**.

Comparing Colorants

This option is used to compare colorants delivered from different dyestuff manufacturers, or to analyze the influence of dyeing processes and auxiliaries on the build-up of the colorant.

Action	Result/Notes
1 Open the "Colorant Set List" window.	
2 Open the requested colorant set and select the colorant.	
3 On the context-sensitive menu, click Compare with Other Colorant .	The „Compare Colorants“ dialog box appears. The selected colorant is listed in the box.
4 Select the colorants you would like to compare.	If necessary, change the colorant set.



Example:

The „Brilliant Blue BB“ is selected from two different colorant sets:

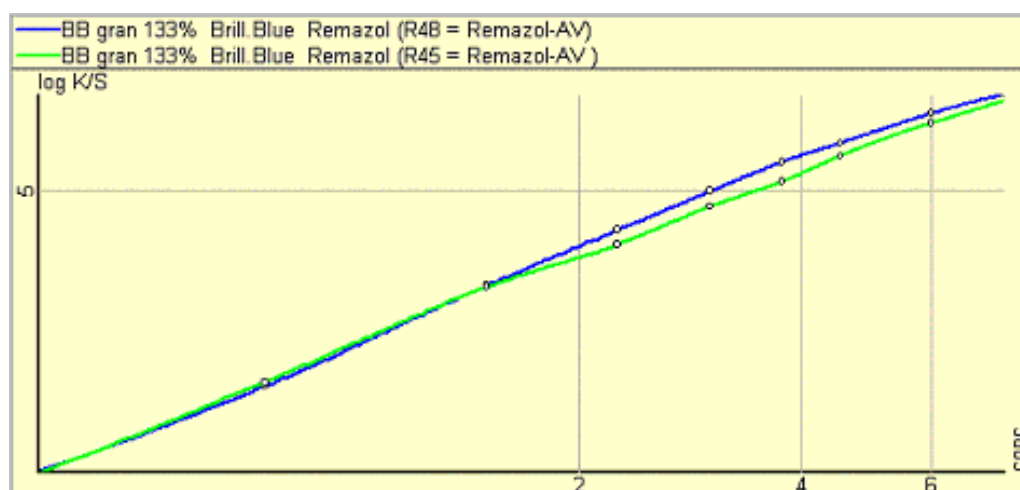
The first colorant set (R48) ❶ is dyed at 40°C and 80 g/l salt,

the second (R45) ❷ is dyed at 40°C and 50 g/l salt.

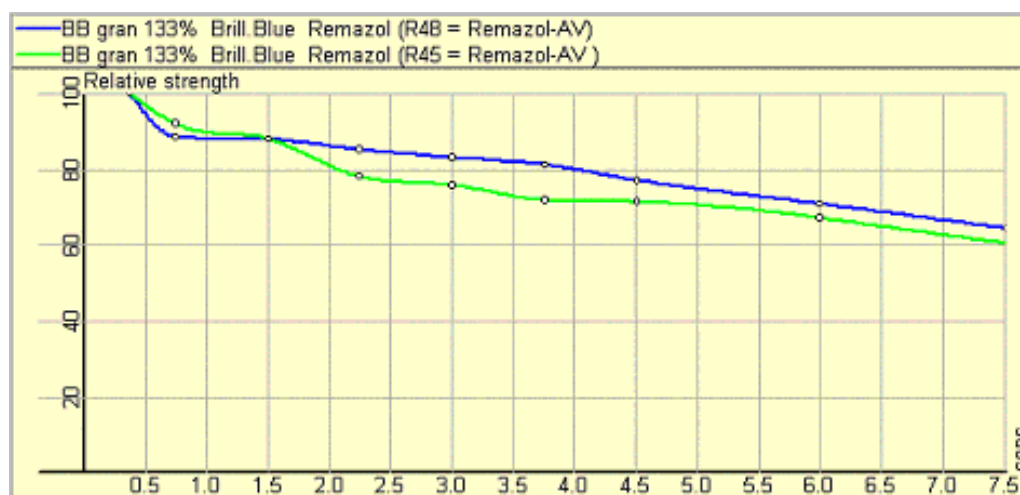
As you can see in the graph, the slope of the dyeing with 50 g/l ❷ is not as steep as that with 80 g/l ❶ salt.

5 Click the corresponding button to display the different graphs.	Refer to the example below for „K/S“. Refer to the examples on the following page for „Log(KS)“ and „Strength“.
---	--

LogK/S



Strength



Specifying Combined Processes

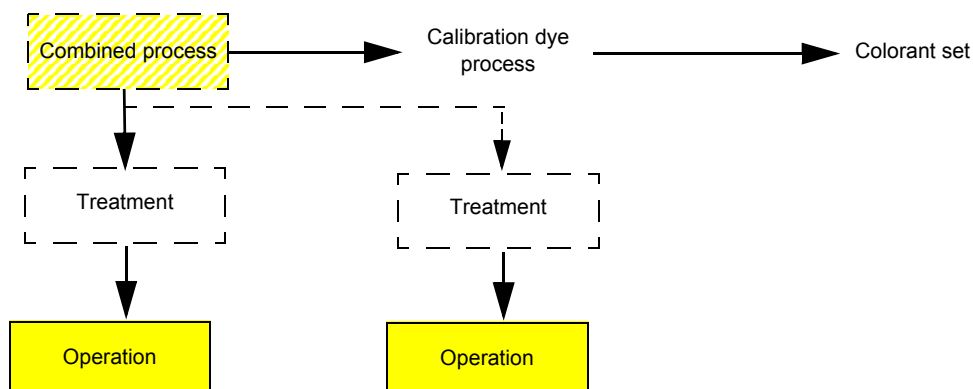


Note

The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

Introduction

The user has to define combined processes and operations



Combined process

A combined process is used to describe the entire dyeing process either for laboratory or production. A treatment is generated for each calibration dye process type (e.g., Exhaust, Continuous,) linked to the combined process.

Treatment

A treatment consists of one or more operations describing the dyeing process for laboratory and/or production.

Operation

The operation specifies the sequence of actions to be done during the dyeing. Actions may be parameters (e.g., temperature, volume,) or products (e.g., chemicals, etc.).



Note

If Datacolor PROCESS is not installed,

- only one operation is possible for each treatment.
- the operation supports XY-tables (decision tables) and fixed parameter values only.

Specifying, Modifying, Deleting A Combined Process



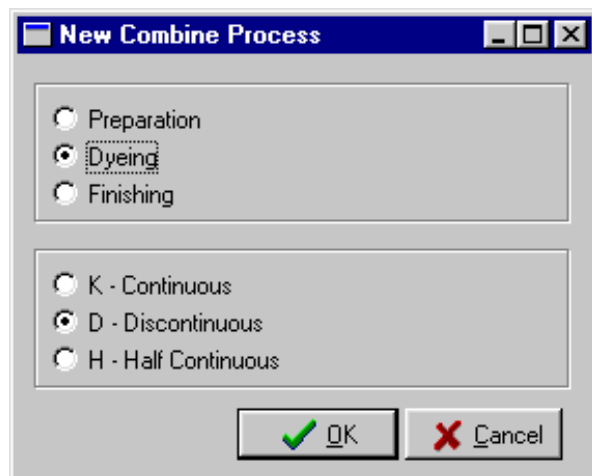
Note

Refer to the Datacolor PROCESS documentation for more information.

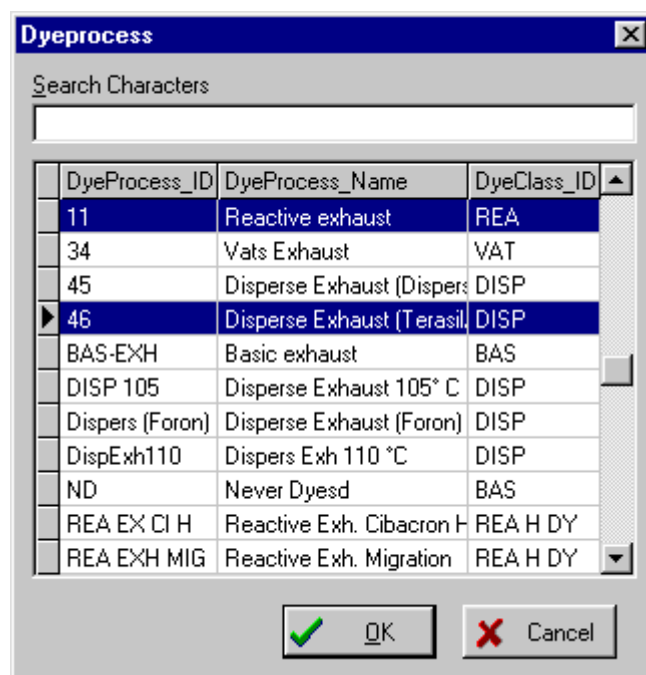
	Action	Result/Notes
1	In the "Overview" window, click Combined Process .	The "Combined Process List" window appears.
2	On the context-sensitive or "Basic Data" menu of the "Combined Process List" window, select Combined Process . or Double-click the corresponding table row to select a combined process for modifying or deletion.	The "Combined Processes" browse window appears. (Refer to Combined Processes Browse Window on page 7-58 and Quick Search Dialog Box on page 7-59 .) It is used to search combined processes or open the "Combined Process" dialog box for specifying a new combined process. Refer to Data Handling on page 5-2 . The "Combined Process" window appears. Refer to Combined Process Window on page 7-61 for information about the parameters.
New combined process:		
3	In the "Combined Processes" browse box, click New for specifying a new combined process. In the "Combined Process" window, click the + button. In the "New Combined Process" selection box, select the process type.	The "Combined Process" dialog box appears. The selected data is displayed.
<div> <div> </div> <div> <h3>Note</h3> <ul style="list-style-type: none"> The calibration dye process(es) of the colorant set(s) set up the link(s) between combined process and colorant set(s). For a multiple fiber quality/style you must select the dye processes representing the colorant sets used for matching. The order of selection specifies the position of the color recipes in the combined process. Refer to the Example of a new combined process on page 5-63. </div> </div>		
4	In the "Dye Process" selection box, select the dye process(es).	The treatment is generated.
5	Specify (or modify) data of the "Treatment", "Recipe", and "Products" tabs.	
6	Click OK .	The "Combined Process" dialog box is closed and the data is saved.

Example of a new combined process

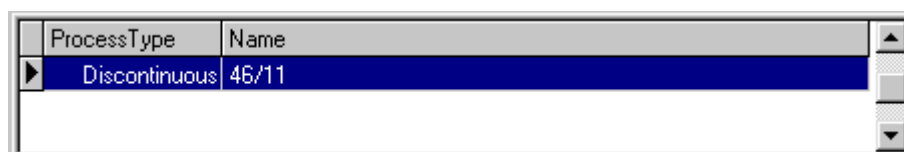
- 1 Select the type of combined process you like to specify.



- 2 Select the Dye Process(es).



The dye processes are the links to the colorant sets. This combined process points to two dye processes (colorant sets.) It can be used for blends of polyester and cotton (refer to the fiber group list box.) The combined process exists of one treatment because both dye processes are of type "Exhaust."



If you specify a combined process of type “Half continuous,” two treatments are created:

ProcessType	Name
Discontinuous	45
Continuous	23

Specifying, Modifying, Deleting An Operation



Note

Refer to the Datacolor PROCESS documentation for more information.

	Action	Result/Notes
1	In the “Overview” window, click Operation .	The “Operation List” window appears.
2	<ul style="list-style-type: none"> Double-click the corresponding table row to select an operation for modifying or deletion. On the context-sensitive or “Basic Data” menu of the “Operation List” window, select Operation. 	<p>The “Operation” window appears. Refer to Operation Window on page 7-67 for information about the parameters.</p> <p>The “Operations” browse box appears. It is used to search operations or open the “Operation” dialog box for specifying a new operation. Refer to Data Handling on page 5-2.</p>
3	New operation: <ul style="list-style-type: none"> In the “Operations” browse box, click New. In the “Operation” dialog box, click the + button for specifying a new operation. 	The “Operation” window appears.
4	Specify (or modify) data in the “General” tab.	

- 5 In the “Control Line” tab, specify the sequence of actions. Using the context-sensitive menu or the insert key, new actions are inserted before the selected one. Using the “cursor down” key, an action is inserted at the end of the table.

Possible actions:

Call off:

Specifies a group of products (dyestuffs and auxiliaries) that can be used together (weighted, dispensed) and defines a new bath (if the dye class is selected in the call off).

Call offs must contain the dye class if the liquid ratio or pickup is not the same for all color recipes of the operation.

Dye Class: *Mandatory*. Dyestuff specification (place-marker). Opens a selection window for dye classes.

Product: Opens a selection window for products.

Parameter: Opens a selection window for parameters.

Note: Inserts a row for additional notes.

- 6 Click **OK**.

Notes

- In the “ID” field, other dye classes, products, and parameters can be selected: Click the corresponding table cell and open the pull-down list.
- In the value field, click the browse button to specify formulae.
Refer to [Specifying Formulae on page 5-66](#).

The “Operation” dialog box is closed and the data is saved.

Specifying Formulae

Formulae are specified in the "Formula Edit" window. Refer to [Formula Edit Window on page 7-71](#).

Action	Result/Notes
1	Select dye class or product for the X axis and liquor ratio or pick up for the Y axis.
2	Using the cursor keys, you can add rows or columns. Specify the limits of the ranges.
3	Specify the absolute values into the corresponding table cells. If you need intermediate values, check the corresponding box(es).

Example:

Formula_Edit

X ☒ Dye class ☐ Product Disperse ☐ Interpolate on X

Dye class: Disperse

4x4	≤ .1	≤ .5	≤ 1	> 1
≤ 5	4	7	10	13
≤ 10	5	8	11	14
≤ 20	6	9	12	15
> 20	6.5	9.5	12.5	15.5

Liquor ratio

Y ☒ Liquor ratio ☐ Pickup ☐ Interpolate on Y

Round to

☐ Raise error if result < minimum
☐ Raise error if result > maximum

☒ OK ☒ Cancel

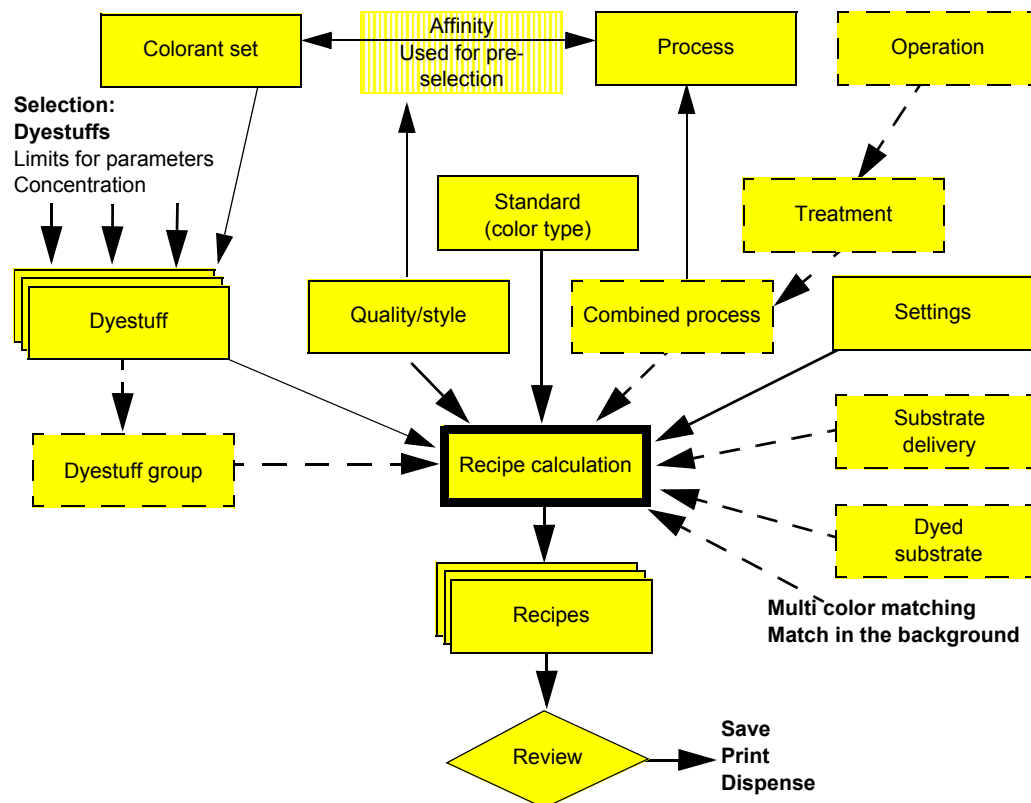
Recipe Calculation (Matching)



Note

The delete, move, copy, and rename functions are only available for users having the corresponding access rights.

Introduction



Selection:

- Quality/style (data of the substrate)
- Combined process
- Substrate delivery (only for deliveries with data different to the blank dyeing substrate)
- Dyed substrate (over-dyeing only)
- Dyestuff group with dyes pre-selected from the assigned colorant set. The dyestuff group is used to optimize the recipe calculation.

Selection criteria:

- Dyes from the list
- Parameter values, e.g., fastness information
- Concentration values, e.g., min., max., conc.
- Settings (parameters for calculation control)
- Standard: Color to be matched.

Match:	The recipes are calculated according to the selections and the results are displayed.
Review:	The recipes can be reviewed according to the different criteria (various color difference values, coordinates, price, etc.).
Further use:	The recipes can be saved, printed and/or sent to a dispenser.

Calculation of A New Recipe Series

Preliminary Work



Note

- The **Save** button is used to save a manually inserted recipe. Refer to [Selecting dyestuffs for matching on page 5-71](#) for a re-dyeing.
- If the parameter „Fixed“ is used and the recipe is saved before the calculation, the dyestuff concentrations are used as default values and can be altered. **A correction is possible.**
- If the parameter „Fixed“ is used and the recipe is calculated without saving, the specified dyestuff concentrations are constant values and cannot be changed. **A correction is restricted or impossible.**

Action		Result/Notes
1	Open the “Recipe List” window.	
2	On the “Recipe” or the context-sensitive menu, select Calculate , or press F5 .	The “Match” dialog box appears. Refer to Match Dialog Box on page 7-116 for a parameter description.
3	Select the quality/style and the combined process.	Dye process and colorant set are displayed. Refer to Specifying, Modifying or Deleting a Quality/Style on page 5-26 and Specifying Combined Processes on page 5-61 .
4	If necessary, select the substrate delivery.	You can measure a new substrate delivery using the „New“ button. Refer to Substrate Delivery: Example on page 5-30 .
5	Select the colorant set(s)	
6	Select the “Standard” to be matched.	Refer to Measurement on page 5-20 .
7	If you have to re-dye, select the dyed substrate or re-measure it.	Refer to Measurement on page 5-20 .



Note

- In the “Used Colorant Set(s)” table, you can temporarily modify the percentage, the process factors and/or the substrate effect factors.
 - In case of a multi-fiber quality/style, you have to select the fiber parts to be matched. Refer to [Multi color matching \(for multi color qualities/styles\) on page 5-70](#).
 - In case of re-dyeing (dyed substrate), recipes cannot be corrected. To enable corrections, measure the dyed substrate as substrate delivery and select it for the recipe calculation.
-
- | | | |
|---|---|--|
| 8 | In the “Colorant Set” tab, select the dyestuffs to be used, and select or specify a dyestuff group. | Refer to Selecting dyestuffs for matching on page 5-71 . |
|---|---|--|



**Note**

You can check the dyestuff selection using the „Lab Graph“ tab. Refer to [Lab Graph Tab on page 7-119](#).

- | | |
|--|--|
| <p>9 In the “Settings” tab, select the parameters for the matching process.</p> <p>10 Click Calculate to immediately start the recipe calculation. The recipe table appears.</p> <p>11 Select the recipes you want to dye.</p> <p>12 Click Close, or Save to save the recipe.</p> | <p>Refer to Settings Tab on page 7-120.</p> <p>Refer to Matching on page 5-74.</p> |
|--|--|

Multi color matching (for multi color qualities/styles)

You can assign its own standard or dyed substrate to each colorant set in the table (process and substrate of the same row are assigned). In this way, the different recipes are calculated together.

Action	Result/Notes
1 Check the “Multi Color Matching” box.	The “List of Standards” box appears.
2 In the “Standard” selection box, select the requested standards one by one, and move each to the “List of Standards” box using the Move  button.	You can remove standards from the list using the Remove  button.

**Note**

In the „Colorant Set“ tab, you can switch between the selected colorant sets. The current colorant set name is displayed on the top of the tab.

Rules for re-dyeing

Re-dyeing needs the following prerequisites:

- The dyed substrate must be darker than the pure substrate of the colorant set (Solution if lighter: Specify the dyed substrate as a delivery);
- No component of the dyed substrate must be darker than the standard (Solution: Bleach and measure again).

Selecting dyestuffs for matching

Match

Standard
BAT1

Process Data for matching | Dyeset | Lab-Graphic | Settings

Dyeset: Disperse Terasil Part [%] 100

Group:
System ... Delete
... Save

A mouse click displays one by one: all (A), the selected (S), or the not selected (N) dyestuffs.

Check „Compulsory“ and select the dyestuff if it must be used.

Used for manual input

Input fields for parameter values

Selection:

A/S/N	stuff	L 1/1	WSH 60	WSH 95	PRES AL	Compul	Fixed	Concentration [%]
								Min.(1) Max.(10) Relation
Accept Limits >>								
1	Terasil Yellow 4G	7	5	5	5			0.8
2	Terasil Orange 2RL	7	5	5	5			2
3	Terasil Red 5G	6-7	5	4	5			2
4	Terasil Red R	6-7	5	5	5			2.5
5	Terasil Brill. Blue BGE 200%	7-8	5	5	5			5
6	Terasil Brill. Blue 3RL	6-7	5	5	5			4
7	Terasil Violet BL	7	5	5	5			6

You can select dyestuffs ...

- by clicking on the dyestuff (multiple choices are possible).
- by inserting parameter values used for limits. Accepted operators: <, >, =, <=, >=
- If “Compulsory” is checked the dyestuff must be used in all combinations.



Note

If you have not selected any dye, all dyes of the list are selected.

- 1 Click **Accept Limits** to activate the selection.

You can define the concentration ...

- by inserting fixed values (manual recipe input). The dyestuff is used with this concentration for all combinations.

**Note**

- If the parameter „Fixed“ is used and the recipe is saved before the calculation, the dyestuff concentrations are used as default values and can be altered. **The correction is possible.**
 - If the parameter „Fixed“ is used and the recipe is calculated and saved after calculation, the specified dyestuff concentrations are constant values and cannot be changed. **The correction is restricted or impossible.**
- by setting a minimum and/or a maximum. The maximum amount displayed automatically is the value specified in the colorant set program.
 - by setting a fixed relation.

**Note**

- You can check the dyestuff selection using the „Lab Graph“ tab. Refer to [Checking the dyestuff selection](#).
- In the „Group“ section, you can select, save or delete predefined dyestuff selections with all settings.

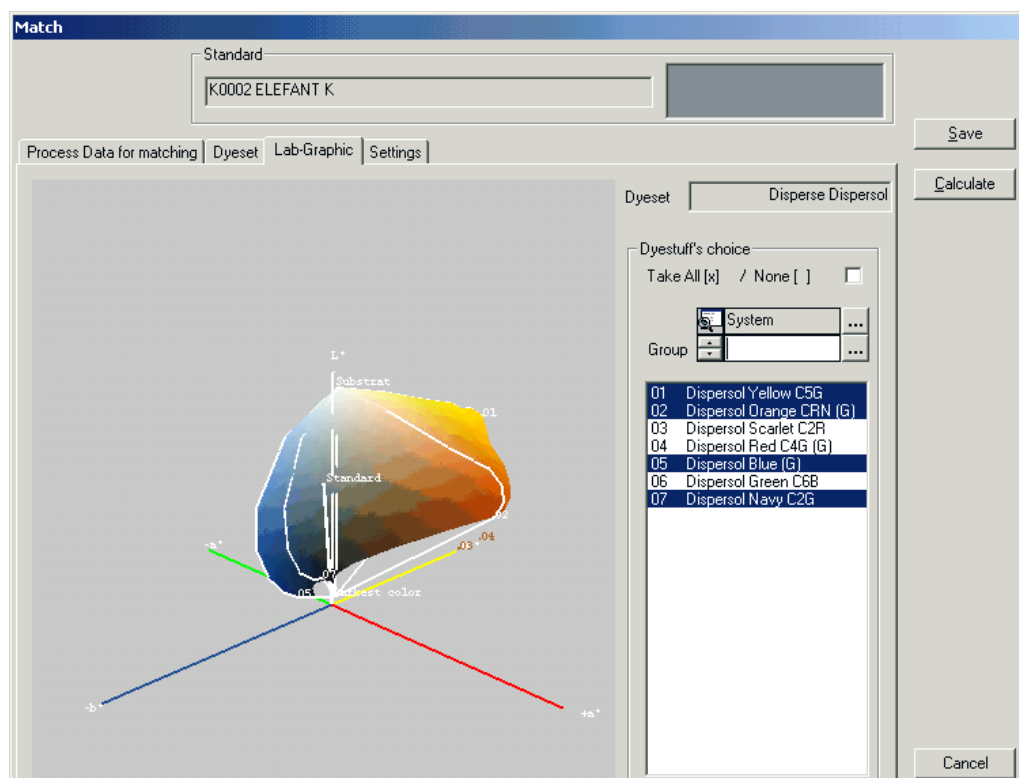
Checking the dyestuff selection

The „Lab Graph“ tab is used to check that a recipe can be calculated with the selected dyestuffs.



Note

The graphical view cannot check the quality of a recipe.



Graph

The graph may be rotated by dragging the left mouse button, and be zoomed by drawing the right mouse button.

The standard is displayed as a sphere on the top of a line. **The dyestuff selection is OK if the standard sphere is completely inside the color space.**

- 1 Check the possible dyestuff selections by rotating the color space. **The standard sphere must not leave the color space at any position of the color space.**



Note

- If a selection is not OK, you can change the selection of dyestuffs.
- If a recipe is not possible, you must add dyestuffs or use (specify) another colorant set.

Parameters

Take all/None

Using this check box, you can select or deselect all dyestuffs. The single dyestuffs are selected or deselected with a mouse click.

Group

Selection or definition of dyestuff groups.

Settings for Recipe Match

Refer to [Settings Tab on page 7-120](#).

Matching

	Action	Result/Notes
1	Click Calculate or press F5 to start the recipe calculation.	According to the settings in the "Settings" tab, the recipes are calculated and the best recipes are displayed in a table.
2	In the table, you can change the order of the recipes according to different criteria, e.g., price, metamerism. Select one ore more recipes using the "Trial" function of the context-sensitive menu.	Refer to Review (recipe table) on page 5-76 for a description of the different review help functions.
3	If finished, close the recipe table.	The "Recipe Database Operation" dialog box appears.
4	If necessary, change recipe name and identification(s). Click Yes for saving the recipe. Click „No“ for returning to the „Match“ dialog box for altering dyestuff selection and settings and recalculate the recipe.	The recipe is saved and the "Show full Recipe" dialog box appears. Refer to Show Full Recipe Dialog Box on page 5-75 on the following page.
5	Edit the „Curr. Pickup (%) / Curr. Liquor Ratio“ value, if necessary Click Show to displays the complete recipe. Click Print to print the complete recipe. Click Dispense to send the recipe to a connected dispenser. Select the recipe output(s) according your needs, and close the "Show Full Recipe" dialog box.	

Show Full Recipe Dialog Box

Modified 04.04.2000 17:10:26 Status

Trial list
 1
 2
 3

Dyeset	Weight	Part	Type	orig. Pickup (%)	curr. Pickup (%)	Liquor
	g			orig. Liquor ratio	curr. Liquor ratio	ml
Disperse Terasil	10.00	100	Exhaust	10.00	15.00	150.00

Show Print Dispense ASCII ☐ Use Pickup Close

Trial List	List of the added Trials.
Orig. ...	Default values from the dye process.
Curr. ...	Editable value. You can specify a current value.
Table	Colorant set and recipe values.
Show	Opens the print preview of the recipe.
Print	Prints the recipe.
Dispense (option)	Sends recipe data to a connected dispenser.
ASCII (option)	Export the recipe data in the ASCII format.
Close	Closes the "Show Full Recipe" dialog box.

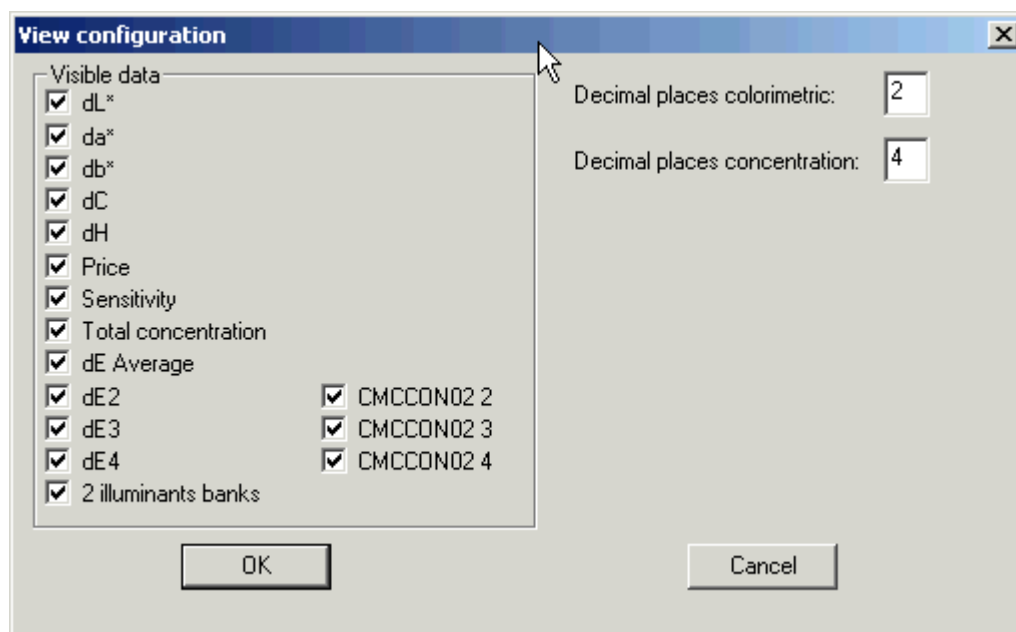
Review (recipe table)

Column for weighting the colorimetric values and the price

Standard	PANTONE 19-1333 TC														
Quality/Style 100.00 [%]	Trevira 2000														
Substrate (factor)	Trevira 2000 - 990210 (1.10)														
Process (factor)	Disperse Exhaust (Dispersol) (1.00)														
Formula	CieLab Default[D65]														
Recipe Information															
dE* D65	1	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.50	2.15
dL*	0	0.00	0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	0.00	-0.02	-0.01
da*	0	0.00	0.00	-0.01	-0.00	0.00	-0.00	-0.00	-0.01	0.00	0.00	-0.00	-0.00	-0.29	1.47
db*	0	-0.00	-0.00	-0.00	-0.01	0.00	-0.01	-0.00	-0.00	-0.00	0.00	-0.00	0.00	0.40	-1.57
dC*	0	0.00	0.00	-0.01	-0.01	0.00	-0.00	-0.00	-0.01	0.00	0.00	-0.00	0.00	0.04	0.18
dH*	0	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.49	-2.14
dE* A	0	1.05	1.89	1.90	1.94	2.11	2.71	2.75	2.88	3.18	3.77	3.81	3.82	3.98	4.34
dE* F11	0	0.86	0.47	2.35	2.30	2.64	1.78	1.96	2.15	0.63	1.11	1.12	0.61	0.94	1.36
dE* F07	0	0.12	0.22	0.27	0.26	0.30	0.24	0.26	0.27	0.38	0.36	0.36	0.36	0.36	0.65
dE* Average	0	0.51	0.64	1.13	1.13	1.26	1.18	1.24	1.33	1.05	0.96	0.96	0.96	0.96	1.71
Metamerism A	0.7	1.06	1.89	1.90	1.94	2.11	2.71	2.75	2.88	3.18	3.77	3.81	3.82	3.98	4.34
Metamerism F11	0	0.86	0.47	2.35	2.29	2.64	1.78	1.96	2.14	0.63	1.11	1.12	0.61	0.94	1.36
Metamerism F07	0	0.12	0.22	0.27	0.26	0.30	0.25	0.26	0.27	0.38	0.36	0.36	0.36	0.36	0.65
CMCCON02 A	0	4.73	4.01	4.34	4.31	4.41	4.32	4.42	4.47	4.18	4.78	4.80	4.68	4.88	4.89
CMCCON02 F11	0	3.73	3.68	3.68	4.07	3.09	3.31	3.51	1.05	2.44	2.44	1.86	2.26	2.32	3.16
CMCCON02 F07	0	2.17	2.04	2.34	2.31	2.36	2.17	2.21	2.22	1.88	2.09	2.08	1.99	2.05	2.21
Sensitivity (Hue)	0	1.93	2.37	0.51	1.53	0.70	1.68	0.41	0.78	0.80	4.05	1.56	0.63	1.40	0.71
Price	0	19.40	21.14	19.09	16.99	18.22	18.72	20.86	20.31	24.81	23.90	23.92	22.53	24.52	24.76
Total concentration [%]	0	0.9363	0.9856	0.8794	0.8591	0.8579	0.9064	0.9245	0.9112	1.1588	1.0668	1.0634	1.0814	1.0931	1.1021
Trial 1	XX	Row(s) for user-defined selection marks													
Dyestuff	1(3)	2(3)	3(3)	4(3)	5(3)	6(3)	7(3)	8(3)	9(3)	10(3)	11(3)	12(3)	13(3)	14(2)	15(2)
Dispersol Yellow C5G	0.2109	0.2059	0.0576				0.0374		0.1799						
Dispersol Orange CRN (G)				0.3782	0.1421	0.3691		0.0929							
Dispersol Scarlet C2R			0.7389		0.6341		0.8223	0.7542							0.8623
Dispersol Red C4G (G)	0.6455	0.7174		0.3983		0.4731			0.8293						
Dispersol Blue (G)		0.0623				0.0641	0.0648	0.0641							0.0621
Dispersol Green C6B									0.1587	0.1424	0.1334	0.1613	0.1627	0.1666	
Dispersol Navy C2G	0.0799		0.0829	0.0825	0.0817					0.0107					
Recipe with D65															
Standard with D65															
Standard with A															
Recipe with A															

The following help functions for review are implemented:

- „Table“ menu and context-sensitive menu:
 - Evaluate Print / ASCII Prints colorimetric details using a predefined form.
 - Theoretical reflectance
 - Opens the „Insert a Theoretical Sample“ dialog box used for saving theoretical reflectance values (E.g., for Datacolor Envision). Datacolor TOOLS can send this data to a user with a Datacolor Envision system to check the color, for example. Refer to [Specifying Theoretical Reflectance Values on page 5-96](#).
 - View Configuration
 - Opens the “View Configurations” dialog box used to define the display of the calculated values and the number of decimal places for colorimetric and concentration data.
 - Reset Sort Order
 - Resets the sort order of the recipes.
 - Add Trial
 - Up to five recipes can be marked. **After closing the table, the selected recipes are saved for further use.**
 - Remove Last Trial
 - Removes the last trial mark.
 - Hide recipes not selected
 - The recipe table only shows the selected recipes.
 - Show all recipes
 - Shows all recipes.
 - Mail Table
 - Opens the mail form with an attached screen shot of the recipe table (JPEG format).
 - Modify
 - Refer to [Manual Recipe Modification \(Recipe Table\) on page 5-81](#).
 - Round
 - Refer to [Round the Dyestuff Concentration \(Recipe Table\) on page 5-81](#).
 - Manually Change
 - Refer to [Manual Graphical Correction on page 5-101](#).
- Pressing the **Ctrl** key and clicking in the recipe number field selects the recipes.
- Clicking in a parameter name (first column) in the table with the calculated values sorts the recipe table according to the values of the corresponding row.
- Alteration of weighting (**only possible for metamerism**): If you have altered the weighting, you have to close the window and match again.

Color inconstancy

Color inconstancy is the change in color of a single sample under different light sources. The magnitude of color inconstancy can be defined by DE CMC (or any other color difference formula) of the sample between two light sources.

To activate the calculation of the color inconstancy,

- calculate a recipe,
- open the context-sensitive menu, select the function „View configuration“ and check the corresponding boxes (CMCxxx).

Color display for two illuminants

To activate the display of two Illuminants,

- calculate a recipe,
- open the context-sensitive menu, select the function „View configuration“ and check the box „2 illuminants banks“.

The selection becomes active after saving the recipe. If you open the recipe table again or match a new recipe, the colors for the first two illuminants are displayed.

Modifying Recipes

Recipe Editor

Recipe parameters can be altered using the Recipe Editor.



Modification Rules for adding and removing dyestuffs:

The dyestuff selection of a recipe can only be altered if ...

- the recipe is approved;
- it is not in use by the laboratory and a modification may influence the laboratory correction.

Note

Data that can be modified is displayed with a green background.

The screenshot shows the 'Recipe Editor' window with a tree view on the left and a table of values on the right. The tree view includes 'Header', 'Color Recipe', and 'Dyestuffs'. The table lists various parameters and their values, with some rows highlighted in green to indicate modifiable data.

Recipe structure	Values
Header	V0002 ELEFANT - 040400 - 1105
Recipe Name	V0002 ELEFANT - 040400 - 1105
Recipe ID	275-2
Creation Date	04.04.2000 11:03:04
Modification Date	26.07.2002 09:38:52
Color Type	V0002 ELEFANT
Quality Name	Cotton knitted not mercerised
CombinedProcess	Remazol Pad Batch Silicate
Batch	BAT 15
Customer Name	
Color Recipe	CO [100 %]
Dye Process Name	Reactive Cold Pad Batch (Silicate)
Colorant Set Name	Remazol SP6 (Silicate)
LiquorRatioOrPickup	60.0
Dyestuffs	g/l
Remazol Yellow R Gran.	0.930881
Remazol Red 3B	2.853106
Remazol Brilliant Blue BB gran. 133%	2.574659
Add Dyestuff	Add Dyestuff

At the bottom, there is a 'Manual Correction' section with a dropdown menu set to 'CO [100 %]', a 'Go' button, and 'Expand', 'Collaps', and 'Undo' buttons. On the far right are 'Save' and 'Cancel' buttons.



Note

The **Go** (Manual Correction) button is used for a manual graphical correction. Refer to [Manual Graphical Correction on page 5-101](#).

	Action	Result/Notes
1	In the „Recipe List“ window, select the requested recipe and the menu function Edit .	Refer to Recipe List Window on page 7-91 . The „Recipe Editor“ dialog box appears. Recipe Editor Dialog Box on page 7-124
2	<p>Replacing header data: Double-click the corresponding green table cell.</p> <p>Altering Data: Click the green table cell, type the value, and confirm the data with the Return key.</p> <p>Adding dyestuffs: Click Add Dyestuff.</p> <p>Removing Dyestuffs Select the dyestuff and press the Delete key.</p>	<p>A selection box with the available data appears.</p> <p>A selection box with the available dye-stuffs appears.</p> <p>The dyestuff is removed from the recipe without confirmation.</p>
3	If the data is altered, click Save .	The altered recipe is saved.



Note

As long as you have not saved the recipe, you can cancel the last modifications by clicking the **Undo** button.

Manual Recipe Modification (Recipe Table)

The concentration calculated by Datacolor MATCH^{Textile} may be modified in the recipe table.

	Action	Result/Notes
1	In the recipe table, select the requested recipe.	
2	In the „Table“ or the context-sensitive menu, select Modify .	
3	Change the concentrations of the dyestuffs. <i>It is possible to specify concentrations for dyestuffs that are not used for the recipe.</i>	<ul style="list-style-type: none"> • The recipe is marked with an M character to indicate that the recipe has been modified. • The values for color difference and metamerism are continually recalculated. • <i>The recipe price is not recalculated.</i>

Round the Dyestuff Concentration (Recipe Table)

Another way to modify the concentrations is the „Round“ function. You can round the concentrations of all recipes corresponding to the setting in the „Options“ dialog box. Refer to [Options Dialog Box on page 7-112](#).

	Action	Result/Notes
1	In the „Table“ or the context-sensitive menu, select Round .	<ul style="list-style-type: none"> • The recipe is marked with an R character to indicate that the recipe has been rounded. • The values for color difference and metamerism are continually recalculated. • <i>The recipe price is not recalculated.</i>

Replace Dyestuffs in Recipes

Dyestuffs can be replaced in all recipes, recipe tables and trials, but not in SmartMatch populations.

Concentrations can be modified using a factor.

The dyestuffs are replaced in all recipes, but a selection is possible with filters. The filters can limit ...

- the range of recipes
- the location of the approved recipes
- the recipe type
- the color type
- the affinity
- the quality.

Action	Result/Notes
1 In the „Recipe List“ window, select the menu function Change Dyestuff in Recipes .	Refer to Recipe List Window on page 7-91 . The „Change One Product in Recipes“ dialog box appears.
2 Select the old and the new product.	The calculated factor for concentration is displayed in the field „Applied Factor“.
3 If necessary, type your own factor to correct the strength.	The final factor (using the dyestuff strength and the user's factor) is displayed in the field „Applied Factor“.
4 Click Filter Recipes and Continue .	The „Search Recipes with Filter (using a filter)“ dialog box appears.

Search recipes with filter

Change product 'Bezaktiv Yellow S-3R 150%'
to 'Bezaktiv Yellow S-8G' with factor ' 1.00'

Recipe range: [Browse] [Text Box] [...]

Approved recipe: ☐ No ☐ Yes ☒ All

Recipe type: ☐ Exhaust ☐ Continuous ☒ All

Color Type: [Browse] [Text Box] [...]

Affinity: [Browse] [Text Box] [...]

Quality/Style: [Browse] [Text Box] [...]

Combined Process: [Dropdown]

[Continue] [Cancel]

- | | | |
|---|--|--|
| 5 | Select the search conditions for recipes that have to be modified. | Refer to „Possible (restrictive) search conditions“. |
| 6 | Click Continue . | The dyestuff is replaced in the selected recipes. |

**Note**

A log file is created with a list of all recipes where the product exchange was not possible. The file is located in the Datacolor MATCH^{Textile} folder.

The file name is „ErrorsChangeProducts.log“

Possible (restrictive) search conditions:

Recipe Range	Select all recipes that have to be modified in the browse box.
Approved Recipe	Select the requested group.
Recipe Type	Select the requested type.
Color Type	In the browse box, select the color type.
Affinity	Select the affinity in the browse box.
Quality/Style	Select the quality/style in the browse box.
Combined Process	Select the combined process.

Printing Recipe Lists

A print form with the most reasonable data for recipe lists is stored in the print form database.

	Action	Result/Notes
1	Select the recipes to be printed in the „Recipe List“ window.	
2	On the context-sensitive menu, select Recipe List .	A print preview appears.

Approving

You can approve a laboratory recipe using the **Approve** button in the “Correct or Approve your Recipe” dialog box (refer to [Correct or Approve Your Recipe Dialog Box on page 7-95](#)) or in the “Laboratory Correction” dialog box (refer to [Laboratory Correction Dialog Box on page 7-96](#)).



- If you approve a recipe, all other trials and the recipe table will be deleted. The recipe location is set to “Laboratory” and the recipe lock level is set to “green”: The recipe can be used for production.
- Recipes approved without measuring the batch are saved without SmartMatch information. These recipes cannot be use for recipe search.

Recipes Inserted Manually by Datacolor PROCESS

Recipes created using Datacolor PROCESS can be listed, printed and corrected with Datacolor MATCH^{Textile} if a colorant set has been selected in Datacolor PROCESS. Missing data is added automatically.

The recipe has the status 1 (created by Datacolor PROCESS).

CMC is stored as tolerance.



Note

- If a colorant set is not selected in Datacolor PROCESS, an error message appears. The colorant set must be added in Datacolor PROCESS.
- All dyestuffs of the recipe must be calibrated in the colorant set.

SmartMatch

Introduction

The SmartMatch facility is used to improve first-time matching and correction. Standard color prediction uses the Kubelka-Munk theory, which assumes that dyes behave in the same way when used together or stand-alone. However, this is not the case: dyes interact with one another. The SmartMatch facility overcomes this problem by taking into account the performance of previous predictions, e.g., learning by experience.

SmartMatch stores information about the concentrations used to dye a sample and the results of dyeing, and uses this data to correct the first attempt made by Kubelka-Munk calculations in future matching. It stores information about previous predictions as SmartMatch points.

Once you set your system to SmartMatch, it runs automatically. However, you can also examine the SmartMatch points the system is using and alter them to refine SmartMatch performance. For example, if you suspect that one of the SmartMatch points being used is based on a bad dyeing, you can remove this point. This way, it is no more used in the calculations.

The number of similar points is reduced by grouping them. In addition to the automatic SmartMatch housekeeping a powerful graphical tool supports to check the SmartMatch population for SmartMatch points to be deleted or grouped.

All recipes calculated using the "Match" option will use SmartMatch when SmartMatch is turned on and if relevant populations are available. The number of SmartMatch points used in a recipe calculation are shown at the bottom of the dye concentration column in the recipe table.

**Note**

You can still store SmartMatch points for later use, if the SmartMatch facility is switched off.

Automatic SmartMatch Maintenance

A regular housekeeping of the database is necessary to optimize the SmartMatch function. SmartMatch points with a color difference that is too large must be removed. This is possible using the "Automatic SmartMatch Housekeeping" function. If you want to remove bad SmartMatch points manually, refer to [Reviewing SmartMatch Points on page 5-87](#).

	Action	Result/Notes
1	Select SmartMatch List on the "Basic Data" or the context-sensitive menu.	The "SmartMatch List" window appears.
2	On the „Tools“ menu, select Automatic SmartMatch Housekeeping .	<p>The tool removes all SmartMatch points with a an excessive color difference (> DE CielAb 160) and groups similar SmartMatch points.</p> <p>The „Automatic Housekeeping“ box informs you about the current statement of the program run.</p>

Automatic housekeeping

Total initial size: 22416 Progress %: 0

Release groups Start Abort Close

Current population

Dyestuff list: 118 AST. YELL 7GLL 100%~H2D~136 AST. RED GTLN 100%~159 MAX BLUE U-TRL 100%

Quality: B16 1.7 DEN B16 FABRIC PACKAGE Initial size: 50 Current size:

Sortiment: BASIC Comment: Build

Reviewing SmartMatch Points

The aim of the housekeeping function is to eliminate poor points (points with a color difference greater than 16 DE Cielab) and to reduce the number of similar points by grouping them.

This is a very complicated mathematical task for the program and, generally, not all points can be recognized for grouping. For this reason, we still have a very powerful graphically supported part in the program to check the population for further points to be deleted or grouped. The human brain is better suited to this tasks than many program lines.

	Action	Result/Notes
1	Select SmartMatch List on the "Basic Data" or the context-sensitive menu.	The "SmartMatch Result List" window appears. Refer to SmartMatch Result List Window on page 7-94 .
2	Double-click the SmartMatch point to be reviewed.	The "Current Population" dialog box appears. If a group is selected, a message appears with the group ID. You can open the group using the „Open Population by SM-Id“ function and this ID. Refer to Current Population Dialog Box on page 7-125 .
3	Search SmartMatch points for another population, if necessary.	
4	Click After Analyses to automatically delete bad points, and to automatically merge points to be merged. Otherwise, click Quick .	The "Population" dialog box appears. Refer to Population Dialog Box on page 7-127 .
5	Check the values and delete SmartMatch points, if necessary.	
6	Close the "Population" dialog box.	A confirmation is requested, if the "Delete" boxes have been checked.



Note

dE_S values should always be lower than the corresponding dE_K values. If not, the population contains bad points that should be deleted.

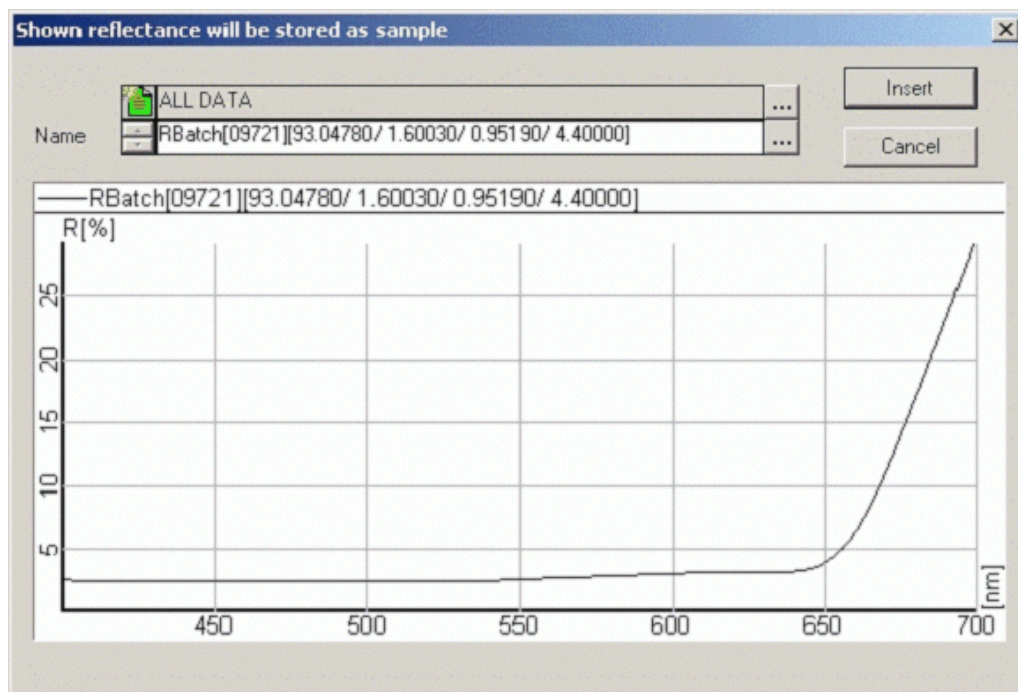
Release SmartMatch Points from the Group

Datacolor MATCH^{Textile} does not delete the original points if they are used to build a SmartMatch group point. You can release (re-establish) the original points if you select a group point in the explorer view. The menu function „Release points from group“ is only enabled if the selected point is a group point. Executing this function brings back all points used to build the group point and the group point is deleted.

Use the „Release Groups“ button in the „Automatic SmartMatch Housekeeping“ dialog box (Refer to [Automatic SmartMatch Maintenance on page 5-86.](#)) to release the SmartMatch points of all groups.

Saving A Batch as A Sample

A color sample can be specified using a SmartMatch point.



	Action	Result/Notes
1	Select SmartMatch List on the "Basic Data" or the context-sensitive menu.	The "SmartMatch Result List" window appears. Refer to SmartMatch Result List Window on page 7-94 .
2	Select the SmartMatch point to be saved.	
3	On the „Smart“ or the context-sensitive menu, select „Save Batch as Sample“.	The „ID’s Point for Creation of Sample“ dialog box appears.
4	If necessary, correct the ID, and click OK .	The „Shown Reflectance Will Be Stored as Sample“ dialog box appears.
5	Accept the default name, or, correct it.	
6	Click Insert .	

Manual Input of SmartMatch Points

The "Fast Correction" function can be used for entering SmartMatch points.

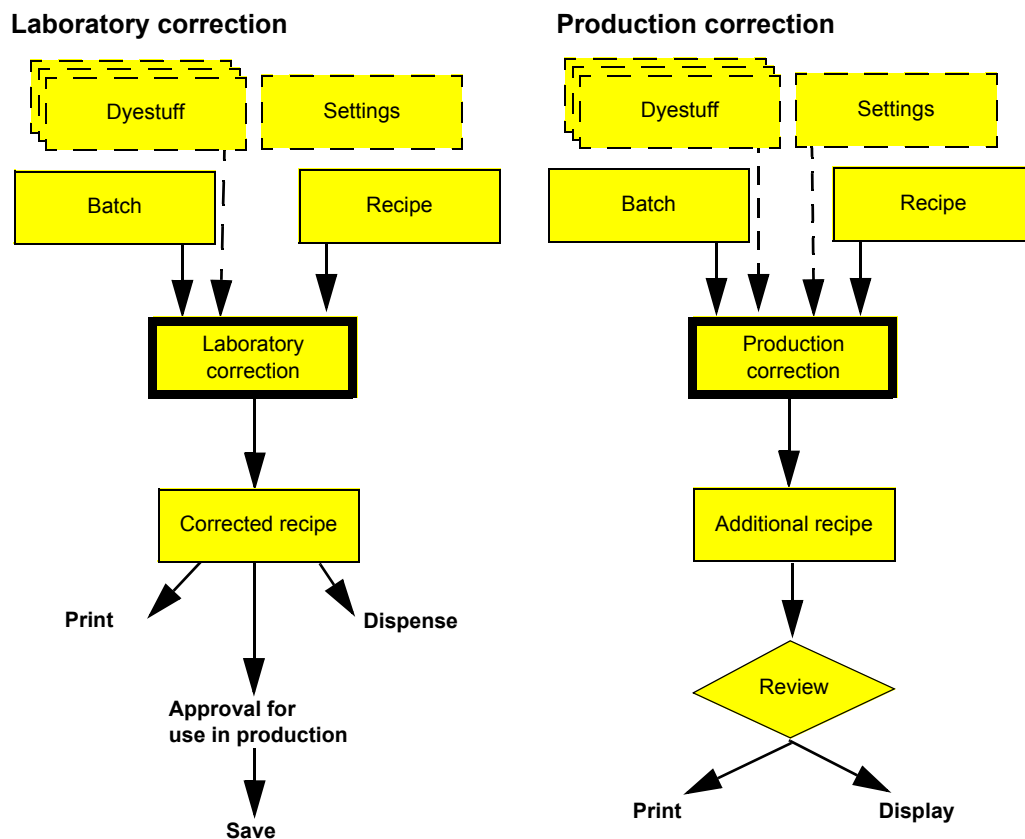
	Action	Result/Notes
1	On the context-sensitive menu, select Fast Correction , or press F8 .	The "Fast Correction Recipe Input" dialog box appears. Refer to Fast Correction Recipe Input Dialog Box on page 7-105 for a detailed description of the parameters.
2	Specify any standard, the quality and substrate delivery.	
3	Select the "Colorant Set" tab.	In the "Colorant Set" tab, the fields and buttons used for manual input will be activated.
4	Specify the batch name and measure the batch that represents the dyeing of the SmartMatch point (Laboratory or Production).	
5	Check the "SM Insert" box, and the type of "SmartMatch's Point." Specify the "Machine" and the "Pick-up/L. Ratio" for production SmartMatch points.	
6	In the dyestuff table, specify the concentrations and click Save .	Only the SmartMatch point will be inserted.

Manual Input of SmartMatch Points together with the Recipe

	Action	Result/Notes
1 to 4)		
5	Do not check the "SM Insert" box. Specify the "Machine" and the "Pick-up/L. Ratio" for production SmartMatch points.	
6	In the dyestuff table, specify the concentrations and click Save .	The SmartMatch point and the recipe are inserted.

Correction

Introduction



Selection of correction type:

- Laboratory The existing recipe is altered and saved again.
- Production An additional recipe is calculated that is used to change color of the dyed batch to the correct color.

Data input:

- Recipe to be corrected
- Batch (color of the dyed substrate to be corrected)
- Dyestuffs are pre-selected by the recipe to be corrected. Additional dyestuffs can be selected. Concentration and parameters can be defined.
- The acceptance limit settings can be altered.



Caution!

A production correction is not saved. It must be printed before closing the "Production Correction" dialog box. Otherwise, the recipe will be lost.

Laboratory Correction

	Action	Result/Notes
1	Select the recipe to be corrected in the "Recipe List" window.	
2	On the context-sensitive menu, select Pass Fail and Laboratory Correction , or press F6 .	The "Correct or Approve Your Recipe" dialog box appears. Refer to Correct or Approve Your Recipe Dialog Box on page 7-95 for a detailed description of the parameters.
3	Click Pass Fail and Correction .	The "Laboratory Correction" dialog box appears. Refer to Laboratory Correction Dialog Box on page 7-96 for a detailed description of the parameters
4	In the "Batch and Color Difference" field, measure or select the sample.	
5	If necessary, alter the data in the dyestuffs table.	Refer to Matching on page 5-74 , section Selecting dyestuffs for matching on page 5-71 .
6	Click Save to save a manual correction.	The correction recipe is saved.
7	Click Laboratory .	The "Recipe Correction" table appears.
8	In the "Recipe Correction" dialog box, you can look at the result of the matching. The color differences between "Standard" and "Batch" are displayed.	Refer to Laboratory Correction Table on page 7-98 . The "Laboratory Correction Table" can be configured. Refer to View Configuration Dialog Box (Laboratory Correction Table) on page 7-100 .
9	If finished, close the recipe table.	A save request appears.
10	Click Yes .	The "Save Your Recipe" dialog box appears.
11	Select the recipe output(s) according your needs, and/or close the "Show Full Recipe" dialog box.	The "Show Full Recipe" dialog box appears. Refer to Matching on page 5-74 , section Show Full Recipe Dialog Box .

Example:

Labor Correction for 'V0005 ORANGE'

Trial Number: 1/1

Standard: V0005 ORANGE

Dyeset: Reactive Exhaust Part [%] 100

Batch and color difference with formula 'CieLab'

No Folder

N0005 ORANGE N

dE 3.03 dC -2.49 dH -1.71 dL 0.18 da 0.05 db 3.02

☐ SM-Analyse

Color differences standard/batch according to the formula used for recipe calculation.

R[%]

400 500 600 700 [nm]

0/1	Dyestuff	Concentration [%]			
	Shown : 7 selected : 2	%	Min.	Max.	Relation
1	Bezaktiv Yellow S-3R 150%	2.7748			
2	Bezaktiv Red S-3B 150%	0.1081			
3	Bezaktiv Yellow S-8G			6.4	
	Bezaktiv Blue S-GN 150%			9.6	
	Bezaktiv Green S-4B			6.4	
	Bezaktiv Navy Blue S-BL			6.4	
	Bezaktiv Black S-GR			16.0	

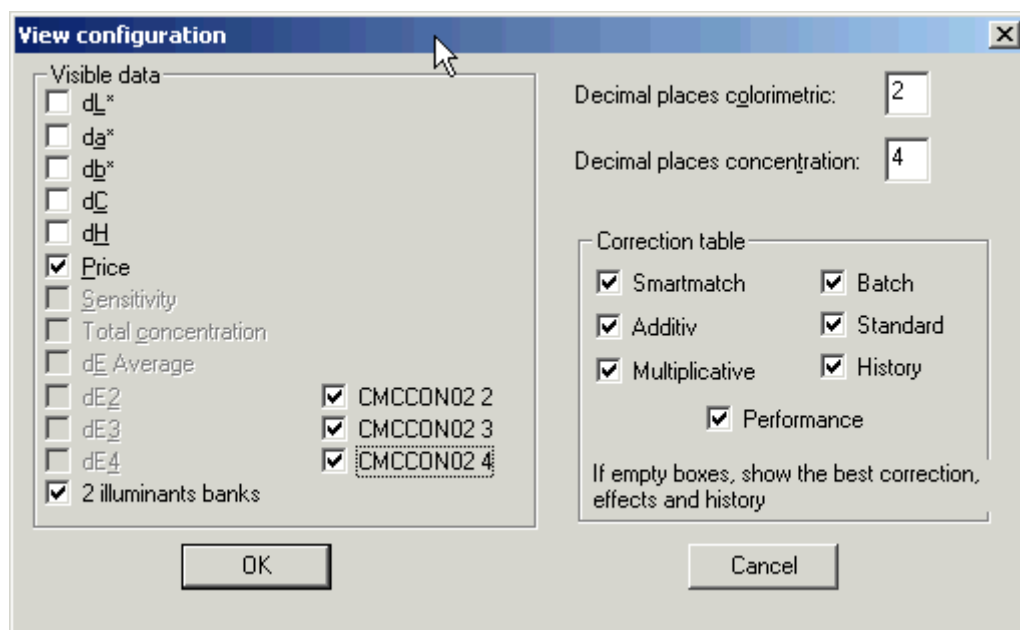
Evaluate displays colorimetric data for standard and batch

Buttons: Approve, Save, Laboratory, Reset batch, ColorTools..., Evaluate..., End

Table:

DCIMatch - [V0002 ELEFANT]							
File Correct Tools Instrument Window Help							
Standard V0002 ELEFANT							
Batch N0002 ELEFANT N							
Quality/Style 100.00 [% Trevira 2000]							
Unit [%s]							
Substrate (factor) Trevira 2000 - 990210 (1.10)							
Process (factor) Disperse Exhaust (Dispersol) (1.00)							
Formula CieLab Default[D65]							
Type of dE	Modified	Modified	Modified		Theory	Theory	PassFail
dE*	0.00	0.31	0.07		0.00	0.00	2.12
dL*	-0.00	0.26	-0.01		-0.00	-0.00	2.04
da*	-0.00	0.00	-0.02		-0.00	-0.00	-0.05
db*	-0.00	-0.17	0.07		-0.00	-0.00	-0.59
dC*	0.00	0.16	-0.07		0.00	0.00	0.55
dH*	-0.00	-0.04	0.00		-0.00	-0.00	-0.20
MetamerismA	0.14	0.19	0.12		0.71	0.62	0.35
MetamerismF11	0.05	0.06	0.06		0.31	0.29	0.09
MetamerismF07	0.05	0.07	0.05		0.11	0.15	0.11
Price	2.23	2.18	2.23		1.61	1.90	
Dyestuff	SmartMatch	Additiv	Multiply	Performance	Batch	Standard	Original
Dispersol Yellow C5G	0.0127	0.0122	0.0128	0.7802	0.0078	0.0100	0.0100
Dispersol Red C4G (G)	0.0506	0.0495	0.0506	0.8472	0.0363	0.0429	0.0429
Dispersol Navy C2G	0.0585	0.0576	0.0585	0.8762	0.0449	0.0512	0.0512
Recipe with D65							
Standard with D65							
Standard with A							
Recipe with A							
Disperse Dispersol							
For Help, press F1							

Selection of corrected recipes using different correction methods

Color inconstancy

Color inconstancy is the change in color of a single sample under different light sources. The magnitude of color inconstancy can be defined by DE CMC (or any other color difference formula) of the sample between two light sources.

To activate the calculation of the color inconstancy,

- open the context-sensitive menu, select the function „View configuration“ and check the corresponding boxes (CMCxxx).

Color display for two illuminants

To activate the display of two illuminants,

- open the context-sensitive menu, select the function „View configuration“ and check the box „2 illuminants banks“.

The selection becomes active after saving the recipe. If you open the recipe table again or match a new recipe, the colors for the first two illuminants are displayed.

**Note**

For the two illuminants, the colors can be very different.

Specifying Theoretical Reflectance Values

You can save theoretical reflectance values of a laboratory correction or a laboratory recipe. Datacolor TOOLS can send this data to a user with a Datacolor Envision system to prove the color, for example.

Action	Result/Notes
1 In the laboratory recipe or the correction table, select the requested recipe.	
2 On the context-sensitive menu, select Theoretical Reflectance .	The „Insert a Theoretical Sample“ dialog box appears. Refer to Insert A Theoretical Sample Dialog Box on page 7-123 .
3 Click Insert .	The sample name is a proposal. Alter it if necessary.

Production Correction

Action	Result/Notes
1 Select the recipe to be corrected in the “Recipe List” window.	
2 On the context-sensitive menu, select Pass Fail and Production Correction , or press F7 .	The “Production Correction” dialog box appears. Refer to Production Correction Dialog Box on page 7-101 for a detailed description of the parameters.
3 Click Production .	
4 You can optimize the result of the matching by adding dyestuffs and concentrations and by specifying tolerances.	Refer to Production Correction Table on page 7-103 .
5 When finished, you can display and print the recipe.	
6 Click Close to close the “Production Correction” dialog box.	



Note

After closing, the production correction recipe can no longer be displayed or printed using Datacolor MATCH^{Textile}.

Production correction examples (continuous)

Result using the “Production” button:

Production correction for Rem-Brilliant Blue BB 133% Gran. 2.0

Standard: Rem-Brilliant Blue BB 133% Gran. 2.0 Batch: Rem-Brilliant Blue BB 133% Gran. 1.0

Fibre:
 Add new dyestuff(s)
 User selected:
 Best add Best positive add Reset

RGB	Dyestuff	Recipe	+ Amount	Effect	Rel. %
	Remazol Brilliant Blue BB gran. 133%	20.000	10.190 g	0.50	50.95
	Diluent	10.000	0.000 l		
	Batch to drop	0.000			

Liquor: 10 I New liquor: 10 I Pickup (%): 60 Use Pickup: ☐

CMC: Use as proposal

Illuminant	deE/MI	New deE/MI	deL/ML	deC/MC	deH/MH
dE D65	3.26	0.65	0.14	0.13	-0.62
Met A	1.07	0.19	0.08	-0.16	-0.05
Met F11	0.79	0.08	0.04	-0.07	0.01

Evaluate... Computer add Optimal dE Min.Add./dE Min.Add./dH Compute to limit >= 0 dE Limit

User add Scale back by 0 %

Graph: R[%] vs [nm] (500-700 nm)

Show Print ASCII Export Close

In this example, it is recommended to use the “Match Batch” button, because the batch was already dark and the color difference too large. The correction tells you to dilute the dye batch.

Production correction for Rem-Brilliant Blue BB 133% Gran. 1.0

Standard: Rem-Brilliant Blue BB 133% Gran. 1.0 Batch: Rem-Brilliant Blue BB 133% Gran. 2.0

Fibre:
 Add new dyestuff(s)
 User selected:
 Best add Best positive add Reset

RGB	Dyestuff	Recipe	+ Amount	Effect	Rel. %
	Remazol Brilliant Blue BB gran. 133%	20.000	0.000 g	1.00	0.00
	Diluent	10.000	10.017 l		
	Batch to drop	0.000			

Liquor: 10 I New liquor: 20.0167 I Pickup (%): 60 Use Pickup: ☐

CMC: Use as proposal

Illuminant	deE/MI	New deE/MI	deL/ML	deC/MC	deH/MH
dE D65	3.35	0.00	0.00	-0.00	-0.00
Met A	1.07	0.00	-0.00	0.00	-0.00
Met F11	0.79	0.00	-0.00	0.00	0.00

Evaluate... Computer add Optimal dE Min.Add./dE Min.Add./dH Compute to limit >= 0 dE Limit

User add Scale back by 0 %

Graph: R[%] vs [nm] (500-700 nm)

Show Print ASCII Export Close

Production Correction (Access from Datacolor PROCESS)



Note

If the production correction is accessed from Datacolor PROCESS, the additions already done (using Datacolor PROCESS) can be taken into account for the batch. The user can define what percentage of the previous adds should be taken.

Result if the previous adds are not taken in account:

	Dyestuff	Recipe	+ Amount		Effect	Rel. %	New rec. [%]
	Terasil Yellow 4G	65.781	2.601	g	1.01	3.95	0.0471
	Terasil Brill. Blue BGE 200%	32.276	1.309	g	1.00	4.05	0.0231
	Terasil Violet BL	58.707	4.636	g	1.00	7.90	0.0436
	Total	156.763	8.545			5.45	

The previous adds are taken into account with 100%

Dyeset | Lab-Graphic | Settings

Dyeset: Terasil Part [%]: 100

Batch & color difference for 'CMC 2:1[D65]'

{All Data}

V0006 PISTACHE (1)/1

Incl. Adds %: 100

☒ Total batch

Selection:

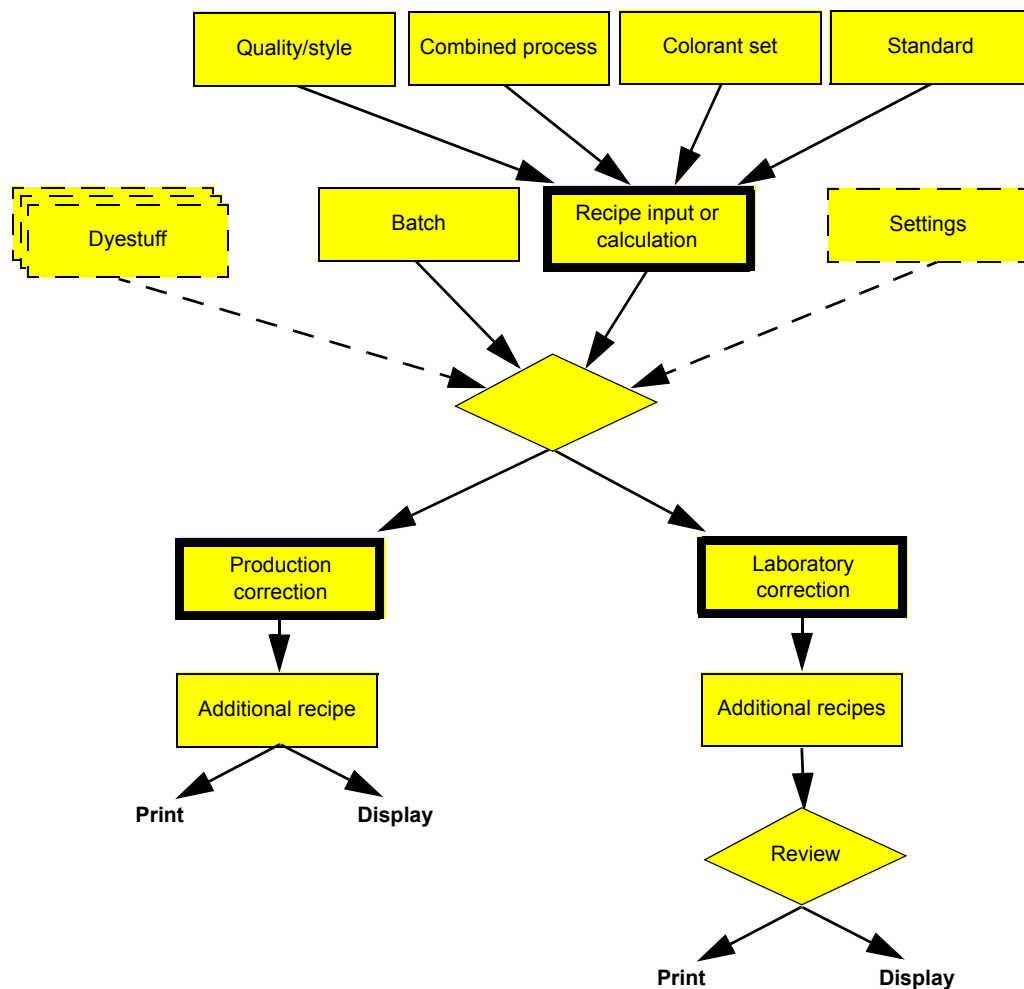
		Dyestuff	Concentration [%]
		Shown : 9 selected : 3	% Min.(100%) Max.(100%) Relation
1	<input checked="" type="checkbox"/>	Terasil Yellow 4G	0.0421 0.0421 0.8
2	<input checked="" type="checkbox"/>	Terasil Red 5G	0.0047 0.0047 2
3	<input checked="" type="checkbox"/>	Terasil Brill. Blue 3RL	0.0360 0.0360 4

Result if the previous adds are taken in account:

	Dyestuff	Recipe	+ Amount		Effect	Rel. %	New rec. [%]
	Terasil Yellow 4G	68.381	2.655	g	0.98	3.88	0.0489
	Terasil Brill. Blue BGE 200%	33.585	1.358	g	0.96	4.04	0.0241
	Terasil Violet BL	63.343	4.945	g	0.93	7.81	0.0470
	Total	165.309	8.959			5.42	

Fast Correction

The “Fast Correction” function is used for production or laboratory corrections without an existing recipe. It is based on a theoretical calculated recipe of the standard or a recipe typed in manually. This task is mainly used for production correction.



Data input:

- Quality/style, combined process, colorant set, and standard.
- Batch (color of the dyed substrate to be corrected).
- Dyestuffs must be selected. Concentration and parameters can be defined.
- The acceptance limit and color difference equitation settings can be altered.
- The recipe can be entered manually or a theoretical recipe can be calculated.


Caution!

Only fast corrections of laboratory recipes can be saved. Fast corrections of production recipes must be printed before closing the "Production Correction" dialog box. Otherwise, the recipe will be lost.

Action	Result/Notes
1 On the context-sensitive menu, select Fast Correction , or press F8 .	The "Fast Correction Recipe Input" dialog box appears. Refer to Fast Correction Recipe Input Dialog Box on page 7-105 for a detailed description of the parameters.
2 In the "Process Data for Matching" tab, select Quality/Style, Combined Process, Colorant Set and Standard .	
3 In the "Colorant Set" tab, select the dyes the recipe is dyed with. If you know the concentrations, you can specify them (either concentrations or absolute amounts). In case of amounts, you must specify the dye lot weight and the weight unit.	
4 Measure or select the batch to be corrected.	
5 Click Laboratory for a laboratory correction. Continue with chapter Laboratory Correction on page 5-92 . Click Production for a production correction. Continue with chapter Production Correction on page 5-96 .	The "Recipe Correction" tab appears. The "Production Correction" table appears.


Note

The "Fast Correction" function can be used for entering SmartMatch points manually. Refer to [Manual Input of SmartMatch Points on page 5-90](#).

Manual Graphical Correction

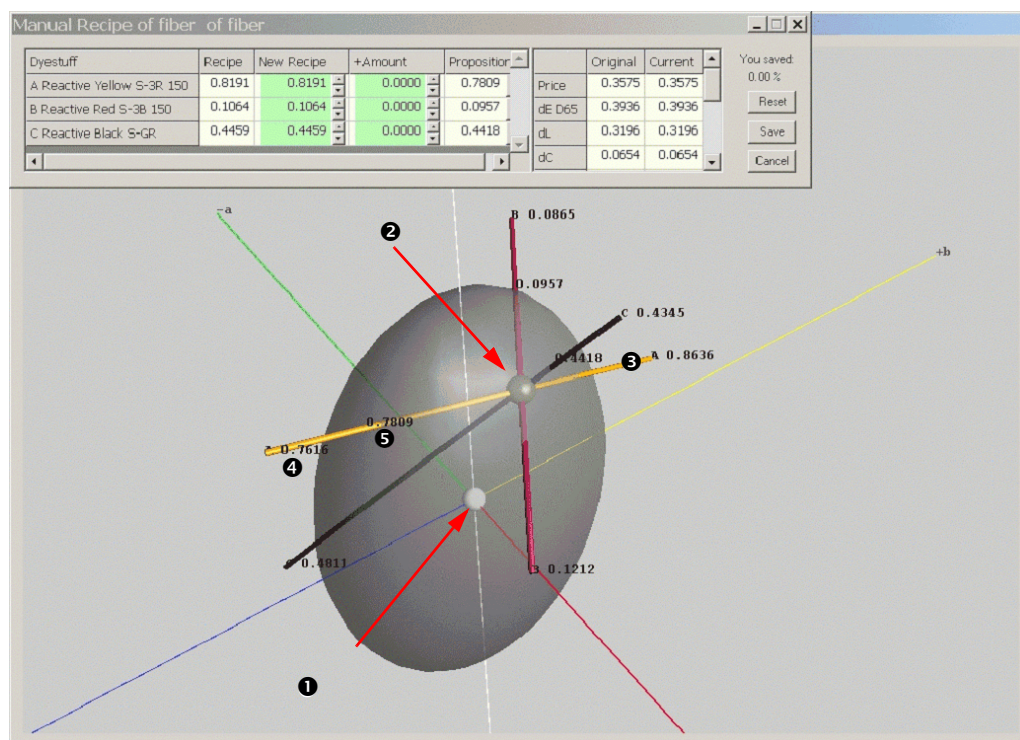
The manual graphical correction recalculates the recipe in the basis of the altered dye-stuff concentrations.

You can start the manual graphical modification of recipes from ...

- the recipe table
- the laboratory correction table
- the production correction table
- from the „Recipe Editor“ dialog box.

The tolerance sphere, the standard and the position of the current recipe are displayed. To visualize the modification in the tolerance sphere, the a/b path (trajectory) of each dyestuff of the recipe is also drawn in the graph.

The concentration displayed at the end of the dyestuff lines represents the position of the color you would get in the tolerance sphere if you took this concentration for the modified recipe. The third concentration is the lowest concentration that results in a recipe at the tolerance limit.



- ① Position of the standard (grey).
- ② Position of the recipe (black).
- ③ Dyestuff line:
 - ④ The length of the line shows all positions of the recipe between the concentrations of 0.7616% and 0.8636%.
 - ⑤ The concentration 0.7808 is the minimum concentration matching the tolerance limit.

Navigation in the graph

Action	Description
Click and hold down the right mouse button.	Moving the mouse forward zooms in, moving the mouse backward zooms out.
Click and hold down the left mouse button.	Moving the mouse left, right, up or down rotates the graphic in the corresponding directions. The rotation center is the batch.
Press F2	Switches to a two-dimensional graph (a^* / b^*).
Press F3	Switches to a two-dimensional graph (L^* / b^*).
Press F4	Switches to a two-dimensional graph (L^* / a^*).
Double-click the graph using the right mouse button.	The graph view switches between parallel and perspective projection.

Modification

- You can change the concentration either by typing or using the buttons in the column „New Recipe“ or the column „+Amount“ to modify the recipe.
- If you click **Set** in the columns „Proposition“, the recipe is set to the minimum amount of dyestuff to match the tolerance limit.

You can see the result of the modification in the graph. The recipe moves to the tolerance limit when you click **Set**.

Search and Correct An Existing Recipe for A New Standard

Existing recipes that are based on a batch have a small color difference in relation to a newly measured standard that has been searched and corrected.

	Action	Result/Notes
1	On the „Recipe“ or the context-sensitive menu of the „Recipe List Window“, select Search Recipe , or press F9 .	The “Search and Correct” dialog box appears. Refer to Search and Correct Dialog Box on page 7-109 for a detailed description of the parameters.
2	Select the new measured standard.	
3	Select the search criteria, and click Search .	<ul style="list-style-type: none"> If recipes are found, the “Search Results” dialog box appears. Refer to Search Results Dialog Box on page 7-110 for a detailed description of the parameters. Recipes found that cannot be used are displayed in the „Found Recipes without SmartMatch Information“ box.
4	In the “Search Results” dialog box, select the base recipe for the calculation.	
5	<ul style="list-style-type: none"> If the color difference is small enough, select „Save as new recipe“ on the context-sensitive menu. If a new recipe is to be calculated, select „Correct and Save“ on the context-sensitive menu. 	<ul style="list-style-type: none"> The selected recipe is saved for the new standard. The new recipe is calculated based on the selected recipe and saved for the new standard.

Displaying and Printing Existing Recipes

Action	Result/Notes
1 Select the recipe in the "Recipe List" window.	
2 On the context-sensitive menu, select Lab Dyelot , or, press Enter .	The "Show Full Recipe Dialog Box" dialog box appears. Refer to Matching , section Show Full Recipe Dialog Box on page 5-75 .

Recipe Output

New output features

- Colorimetric data is printed (color difference and metamerism for standard, batch and standard, theoretical batch of correction).
- Information if the recipe was manually modified.
- Water volume to be added to get the final volume.
- The last measured batch.
- The modification number of the recipe (starting with No. 0 for the 1st recipe).

Recipe **Ref. Green** Trial **1**
Recipe ID **141**

Standard **Rec. Green :01** Dyed Sample
Quality **Cotton bleached** Substrate
CombPro **Reactive Bezema Exhaust** Weight **10.00 g**

Dyestuff Price **0.03** Chemical Price **0.00**

① Tolerance Name	CMC 2:1	Factor	1.00
DyeSet	Reactive Exhaust	② Recipe Modified	No
	Measured	Predicted	
dE(D65)	0.84	0.00	
Metamerism (A)	0.32	0.01	
Metamerism (F11)	0.22	0.06	

Note

Dyeing

Caloff **1**

Volume: **100.00 ml**

Water ③ **Water to add**
Temperature

85.36

60.00 °

Note

Chemikalien zugeben

BERNX	Meropan	1.5000	g/l	1.50	ml	1:10
BIK109	Biavin 109	0.3000	g/l	3.00	ml	1:100
NaCl	Common Salt	70.0000	g/l	7.000	g	

Dyeset	Reactive Exhaust	Part	100.00
Dye Process	Reactive exhaust	Factor	1.00
④ LastMeasuredBatch	Ref. Green/1		
Liquor Ratio / Pickup	10.00	Substrate Factor	1.00
		⑤ Modification No	1

18	Bezaktiv Yellow S.8G	0.3727	%	3.73	ml	1:100
14	Bezaktiv Yellow S.3R 150	0.1458	%	1.46	ml	1:100
4	Bezaktiv Green S.4B	2.7595	%	2.76	ml	1:10

Calculation of the stock solution



Note

The single volumes of the stock solution are checked. If they exceed the target volume, another stock solution is used.

Recipe History

If a Batch exists, Datacolor MATCH^{Textile} saves all corrections and modifications of a recipe. Modifications done with the „Edit“ option are also saved. In addition to the recipes, a dLab graph is displayed.

Displaying the history:

- Select the function **History** on the **Recipe** or the context-sensitive menu.

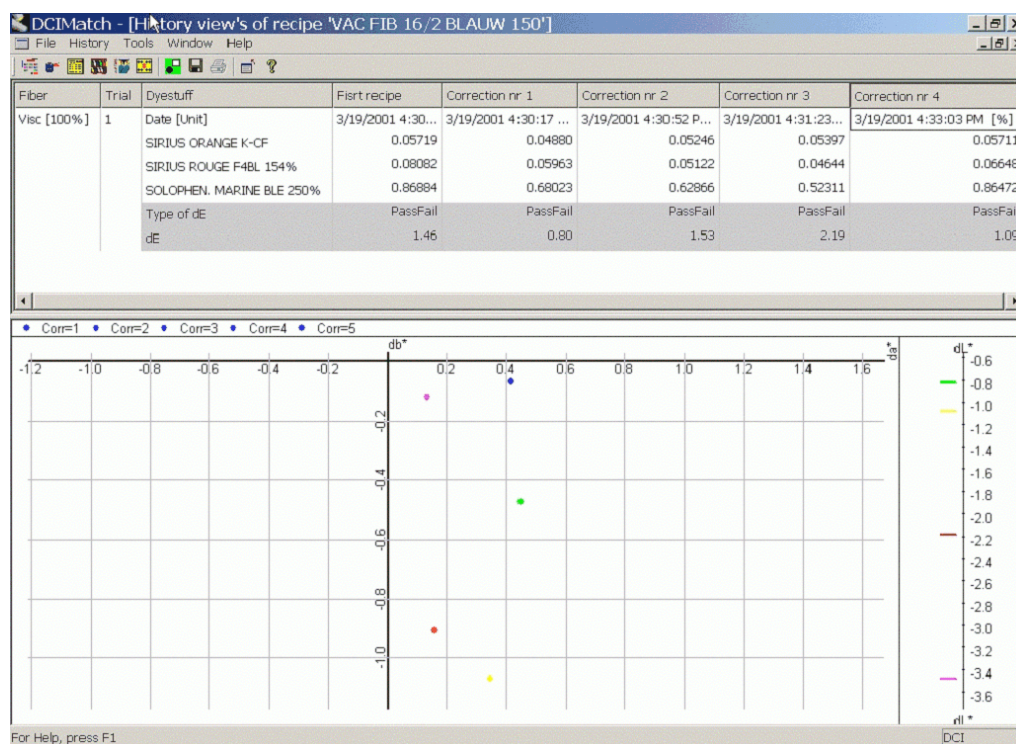
Printing the history:

- Select **Print** on the **History** menu.



Note

The graph is not to be printed.



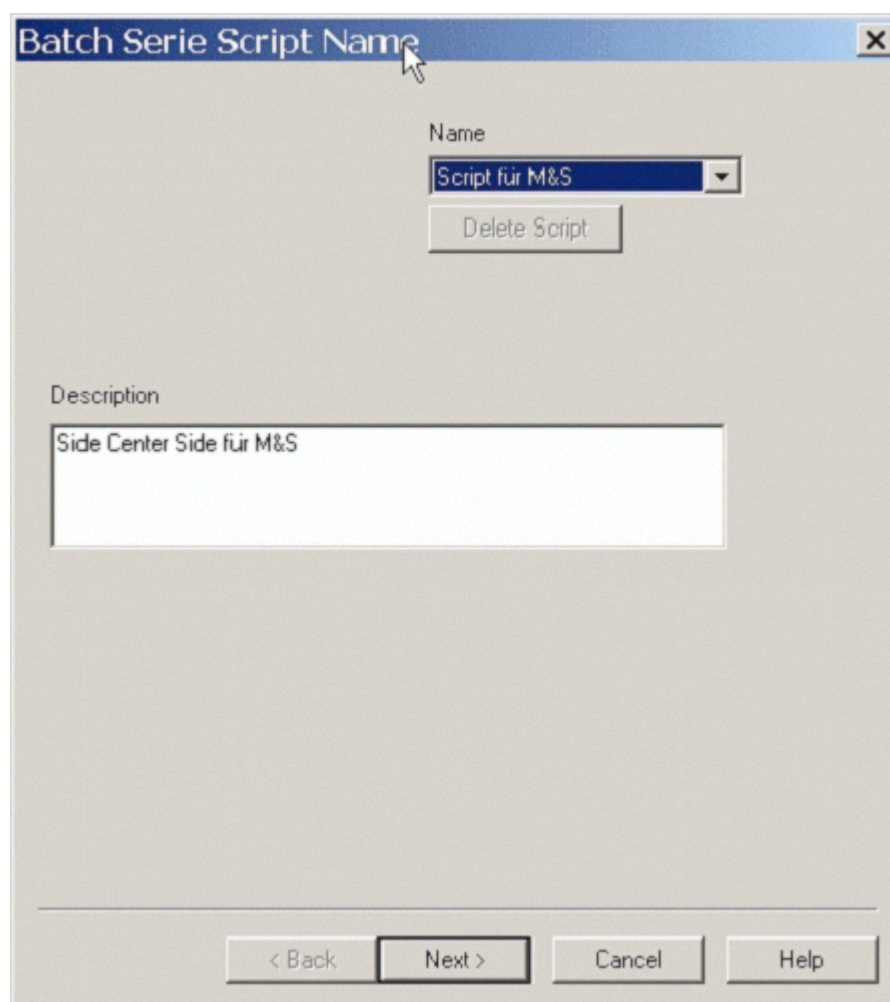
Datacolor MONITOR (Option)

Datacolor MONITOR is a color quality control software product that was designed to easily acquire color measurement data and pass/fail decisions for production quality control. The program is designed to compare side-center-side for fabrics. The major task was to design a software module that is easy to operate. Datacolor MONITOR is an option for Datacolor MATCH^{Textile}.

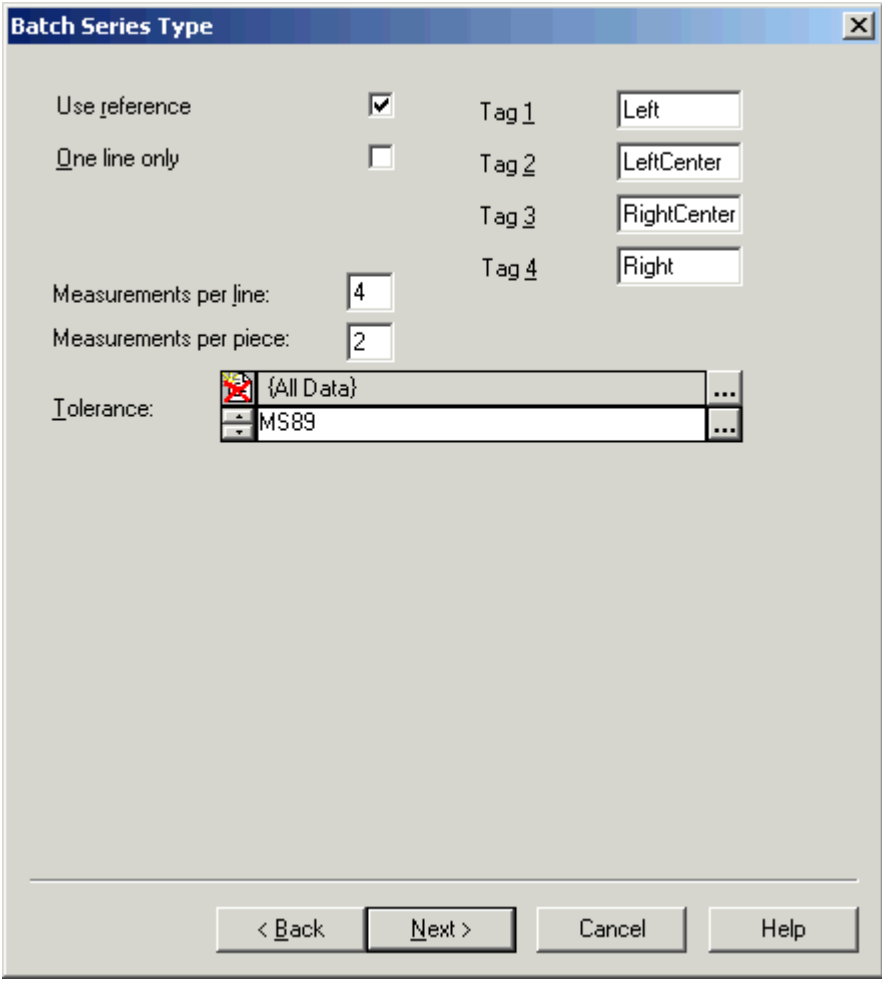
Specifying A Script

If you are starting the program for the 1st time, you must define a script to be able to measure a batch series. A script describes the measurements, the tolerances and the relations for the comparison.

- 1 On the **Batch Series** menu, select **New Script**.



- 2 Specify a name, a description (not mandatory), and click **Next** to continue.



The dialog box titled "Batch Series Type" contains the following controls:

- Use reference:** A checked checkbox.
- One line only:** An unchecked checkbox.
- Measurements per line:** A numeric input field containing the value 4.
- Measurements per piece:** A numeric input field containing the value 2.
- Tag 1:** A text box containing "Left".
- Tag 2:** A text box containing "LeftCenter".
- Tag 3:** A text box containing "RightCenter".
- Tag 4:** A text box containing "Right".
- Tolerance:** A list box with two items: "{All Data}" and "MS89".
- Buttons:** "< Back", "Next >", "Cancel", and "Help".

This dialog is very important.

- 3 You have to decide ...
- whether the measurements should be compared to a reference sample;
 - how many measurements should be taken in the horizontal direction (measurements per line: maximum is 4), and;
 - how many measurements per piece should be done in the vertical of a fabric.

The measurements in horizontal direction are called „Tag 1“, „Tag 2“, „Tag 3“, and „Tag 4“. For each tag, you can give a name describing the position of the measuring. This name is stored together with the spectrum and is used to identify the position.



Note

- These names cannot be modified if a batch series exists using that script. Refer to [Diagram: Measurement distribution on page 5-109](#).
- Up to four tags may be defined.

If you check „Only one line“ the measurement program stops if the measurements defined in „Measurements per line“ are done.

- 4 Select the Pass/Fail formula.
- 5 Click **Next** to continue.

Batch Serie Relation

Relation with standard:

Tag	Standard	Tolerance Facto
<input type="checkbox"/> Left	Standard	
<input checked="" type="checkbox"/> LeftCenter	Standard	1.0
<input checked="" type="checkbox"/> RightCenter	Standard	1.0
<input type="checkbox"/> Right	Standard	

Relation with previous batch:

Tag	Previous Tag	Tolerance Facto
<input checked="" type="checkbox"/> LeftCenter	LeftCenter	1.0
<input checked="" type="checkbox"/> RightCenter	RightCenter	1.0
<input checked="" type="checkbox"/> Right	Right	1.0

Relation with batch on same line:

Tag	Tag	Tolerance Facto
<input checked="" type="checkbox"/> Left	LeftCenter	1.0
<input type="checkbox"/> LeftCenter	RightCenter	
<input type="checkbox"/> RightCenter	Right	
<input checked="" type="checkbox"/> Right	Left	1.0

< Back Finish Cancel Help

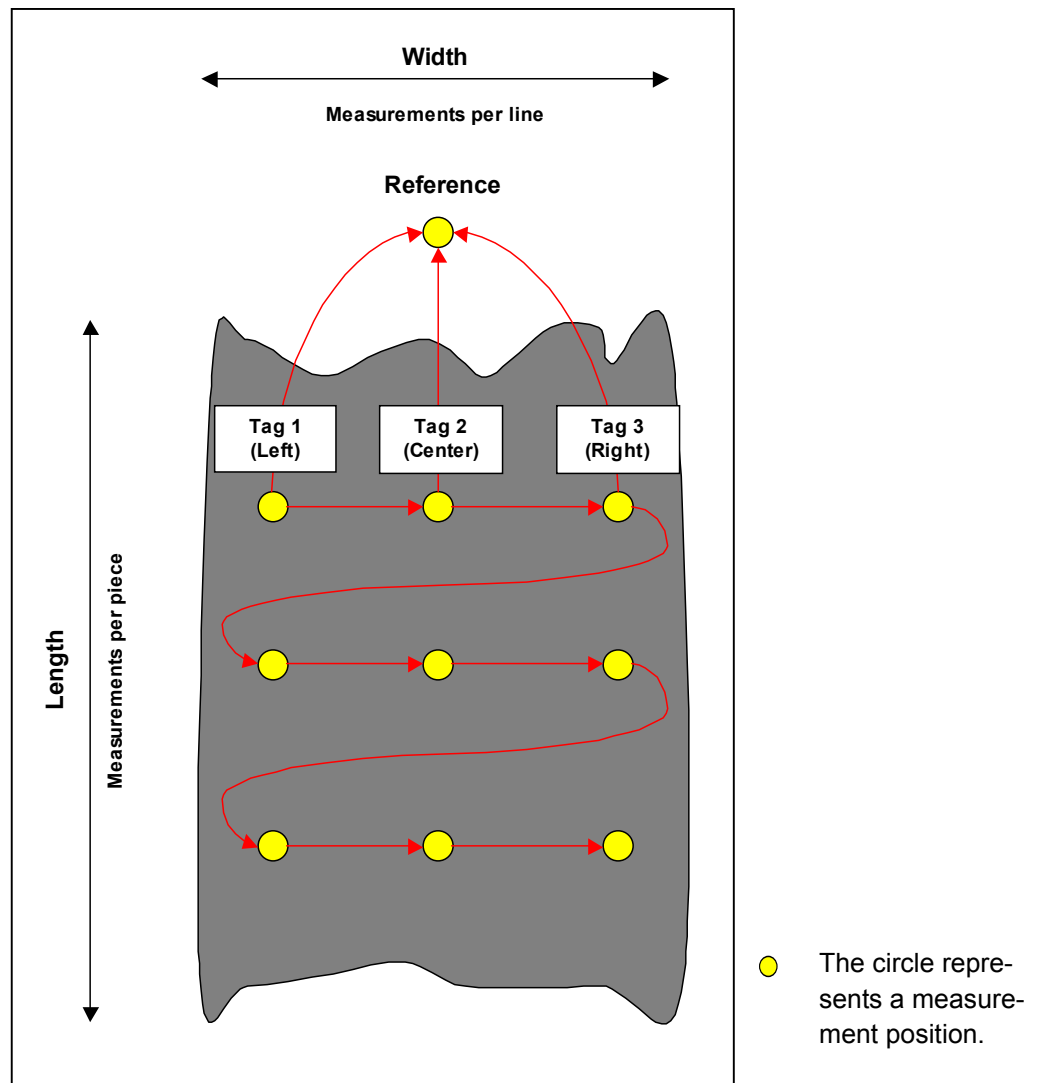
- 6 Set the measurements you want to compare. You can set an individual tolerance factor for each relation.

There are three different types of relations:

- Relation with Standard (only if „Use reference“ is checked in the previous dialog);
- relation with previous batch (vertical);
- relation with batch on the same line (horizontal).

- 7 Click **Finish** to save the script.

Diagram: Measurement distribution



This graph represents one piece of fabric, with three horizontal measurement positions (e.g. left - center - right) and three positions per piece (e.g. at the beginning, in the middle and at the end of the piece). In addition, the reference is included in the pass / fail task.

Specifying A Batch Series

The screenshot shows a 'Create batch series' dialog box with the following fields and values:

- Name:** M&S Lot 173652
- Folder:** CS-Series
- Script:** M&S-CSQC
- Standard:** CS-Series (selected), M&S Blue 454
- Batch name:** M&S Lot 173652
- Batches:** (empty list)
- Description:** Here you can write down some notes.

Buttons: OK, Cancel

	Action	Result/Notes
1	On the Batch Series menu, select Measure New Series .	The „Create Batch Series“ dialog box appears.
2	Type the name of the batch series, select the folder and the script.	
3	If a reference is defined in the script, select or measure the reference sample.	If a reference is not defined, the section for the standard is disabled.
4	Click Ok to start the measurement.	The measurement table and the „Measure Control“ dialog box appears.



Note

The name of the batch series is used as batch name together with an extension for the number of lines measured, e.g.,

M&S Lot 1173652_001

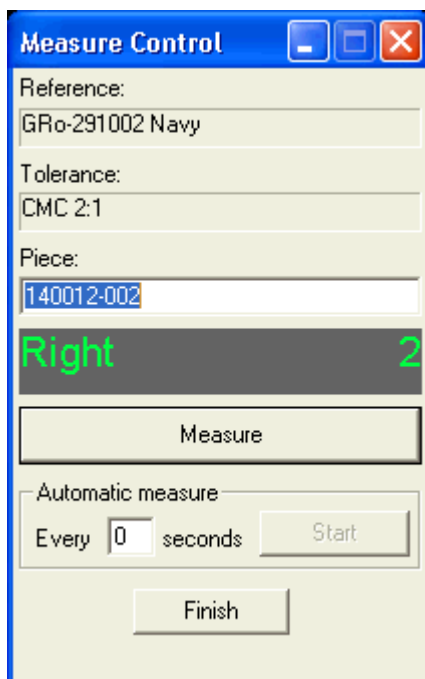
M&S Lot 1173652_002

M&S Lot 1173652_003

M&S Lot 1173652_004,

Each sample contains the spectra for the readings made at the positions left, center and right.

- 5 Type the name or number for the 1st piece of fabric and click **Measure** to start the 1st measurement.



Measure Control

Reference:
GRo-291002 Navy

Tolerance:
CMC 2:1

Piece:
140012-002

Right 2

Measure

Automatic measure
Every 0 seconds Start

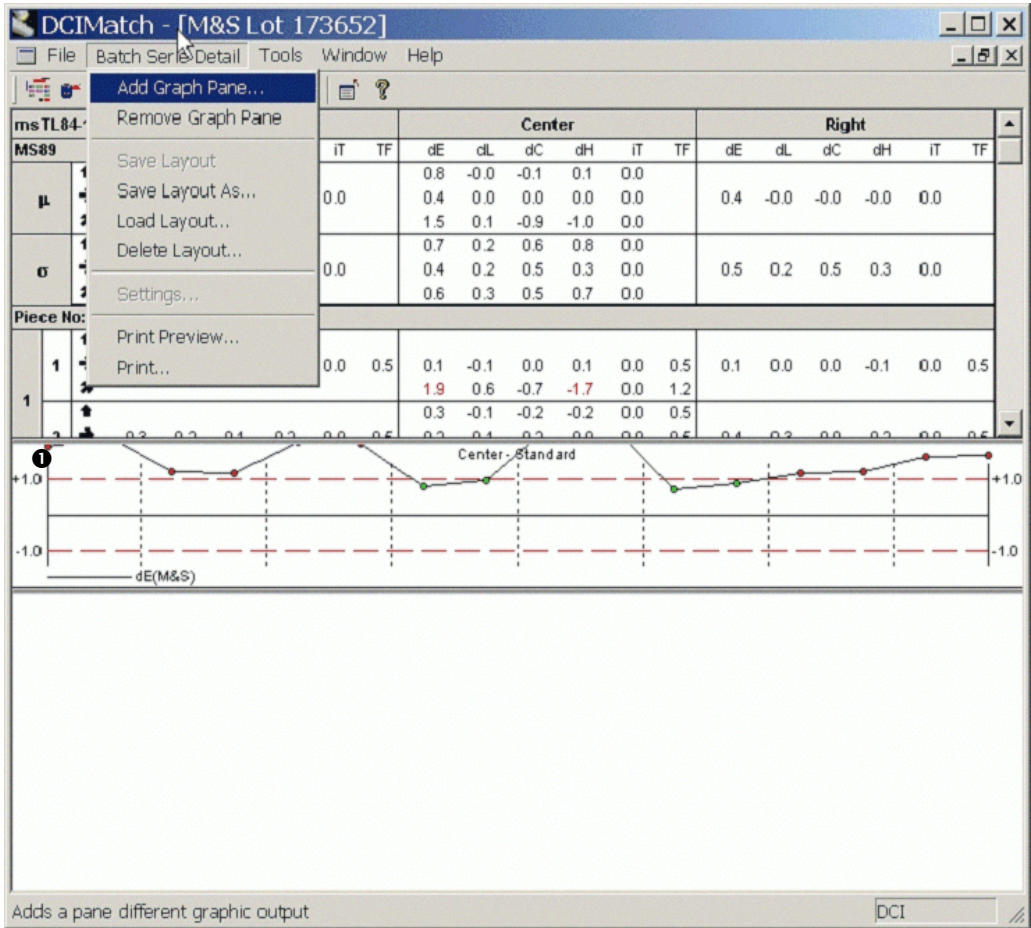
Finish

- The position you have to measure is displayed in the dialog box.
- The program asks for the next reading as soon as the measurement is done.
- If all measurements defined for a piece of fabric have been done, you can type the name of the next piece of fabric.
- If you forget it, the program asks for a new name.
- If your instrument is equipped with a feature button, you can trigger the measurement from the instrument.
- If the measurements of a line have been done, the color differences will be displayed.

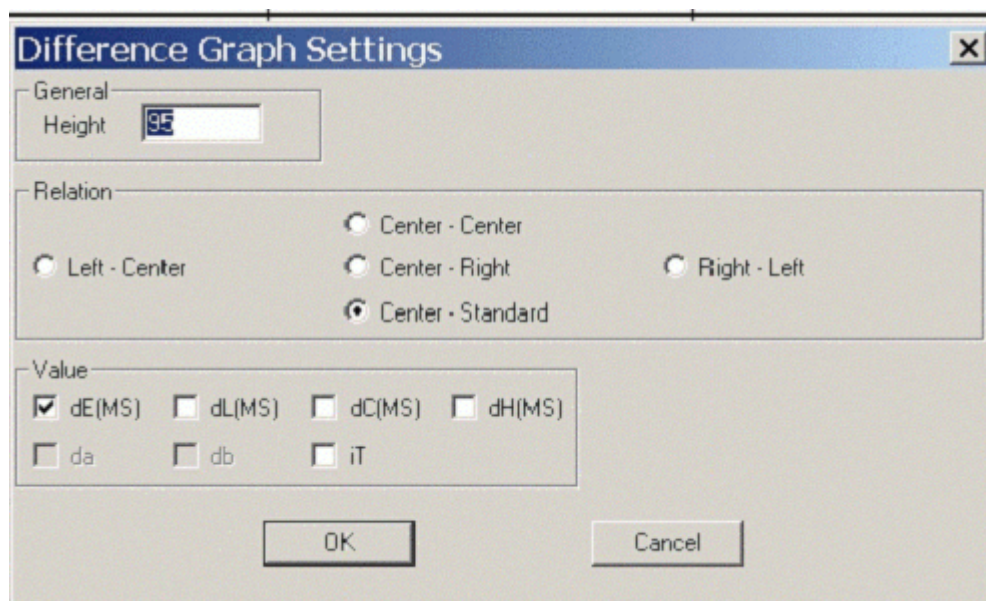
Adding A Graph Panel

You can add graph panels to the graphical display of all measurement positions and color difference values.

Action	Result/Notes
1 On the Batch Series menu, select Add Graph Panel .	Graph panels ❶ are displayed for each measurement.



2 In the graph panel, click the right mouse button.	The „Difference Graph Settings“ dialog box appears.
---	---



- 3 For all graph panels, select the measurement positions to be compared and the type of the difference value. „iT“ is the normalized tolerance (dE/TF). This value is important if you work with different tolerance factors for the sample relations.
- 4 Save the screen using the **Save Layout As** function of the **Batch Series** menu. Refer to [Batch Series Window on page 7-139](#) for an overview of all functions.


Printing A Batch Series

The printout or print preview is based on print forms created with the „Print View Designer“. Two default forms are provided with the database „Printform.db“.

In the task „Options“ of the menu „Batch Series“, you can select whether all pass/fail decisions or only failed ones are to be printed.

Example of the default printouts

20.02.2001



Center - Side - QC Details

Name M&S Lot 173652

Description Here you can write down some notes.

Script M&S-CSQC

Standard M&S Blue 454

Illuminant msTL84-10

Dyelot

Formula MS89

Tolerance MS89

	<u>dE(M&S)</u>		<u>dL(M&S)</u>		<u>dC(M&S)</u>		<u>dH(M&S)</u>		<u>iT(M&S)</u>	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Center-Standard	1.52	0.58	0.09	0.30	-0.91	0.44	-0.99	0.73	0.00	0.00
Center-Center	0.75	0.68	-0.05	0.21	-0.09	0.57	0.06	0.82	0.00	0.00
Left-Center	0.36	0.45	-0.00	0.20	-0.00	0.46	0.01	0.29	0.00	0.00
Center-Right	0.36	0.45	0.00	0.20	-0.01	0.46	0.00	0.29	0.00	0.00
Right-Left	0.37	0.45	-0.00	0.20	-0.02	0.47	-0.00	0.29	0.00	0.00

Name Piece No: 1

	<u>dE(M&S)</u>	<u>dL(M&S)</u>	<u>dC(M&S)</u>	<u>dH(M&S)</u>	<u>iT(M&S)</u>	<u>TF</u>	<u>Decision</u>
Center-Center	0.00	0.00	0.00	0.00	0.00	0.00	Pass
Left-Center	0.09	0.02	-0.08	0.03	0.00	0.50	Pass
Center-Right	0.11	-0.07	0.03	0.08	0.00	0.50	Pass
Right-Left	0.11	0.01	0.02	-0.11	0.00	0.50	Pass
Center-Standard	1.91	0.57	-0.65	-1.70	0.00	1.20	Pass

Datacolor TICKET (Option)

Datacolor TICKET has been designed for customers needing software to easily specify production recipes and Datacolor TICKETs to run on their production plant.

Datacolor TICKET is based on the „Entry Level Datacolor PROCESS“. The big advantage of the new module is that you can generate Datacolor TICKETs without a combined process.

Datacolor Ticked consists of three major tasks: dye lot, production recipe and administration.

Datacolor TICKET - Production Recipe

The „Production Recipe“ task is used to specify production recipes from approved laboratory recipes.



Note

- The advantage of creating production recipes without combined process means that the recipe is completely unique. There is no rule for adjusting the concentrations of chemicals or for adding process dependent chemicals and/or parameters, even if an operation is used to set up the production recipe. The production recipe is a flat recipe built up from dyestuffs, chemicals, and parameters. The generated recipe has no link to a combined process or operation.
- Datacolor TICKET uses the combined process if it is used in Datacolor MATCH^{Textile}. In this case, it is not necessary to specify the generated recipe in the „Production Recipe“ task. The program behaves as the normal „Datacolor PROCESS Entry Level“.

Recipe : MB1209 Old Gold Yellow 1630 (9728-001)

File Edit Recipe

◀ ▶ ⏪ ⏩ + - Apply OK Cancel Help

ID: 9728-001 AuxID:

Name: MB1209 Old Gold Yellow 1630


Color type: 7-42-00 MB1209 Old Gold Yellow 1630

Quality: 1 Cotton bleached

Affinity: CO-SFZ Cotton bleached

CombProcess:

Location: Laboratory



Dy...	Dye process	Part	DyeFiberGroup	Colorant set
1	Reactive exhaust	100%	CO	1/10 Reactive Exhaust

Pass/Fail

#	Product ID	Product Name	Conc	Old Conc	Unit	Actual...
1	14	Bezaktiv Yellow S-3R 150	0.7683	0.0000	%	150 %
1	15	Bezaktiv Red S-3B 150	0.1128	0.0000	%	150 %
2	4	Bezaktiv Green S-4B	0.2301	0.0000	%	100 %

Modify Template New dyelot

User : DCI created 03.10.2002, modified 03.10.2002 by DCI

Action	Result/Notes
1 In the „Overview“ window, click Production Recipe .	The „Recipes“ list window appears. Refer to Recipe List Window on page 7-145 .
2 Select the requested recipe and open it.	The „Recipe“ window appears. Refer to Recipe Window (Datacolor PROCESS) on page 7-147 .
3 Click Load and Modify Template to add chemicals.	The „Root Recipe“ dialog box appears. Refer to Root Recipe Dialog Box on page 7-149 for more information.
4 Click New Dye Lot .	The „New Dye Lot“ dialog box appears. Continue with Datacolor TICKET - Dye Lot on page 5-117 .



Note

The „Root Recipe“ contains all the dyeing steps with the related products and their relative amount (% , ml/l, or g/l).

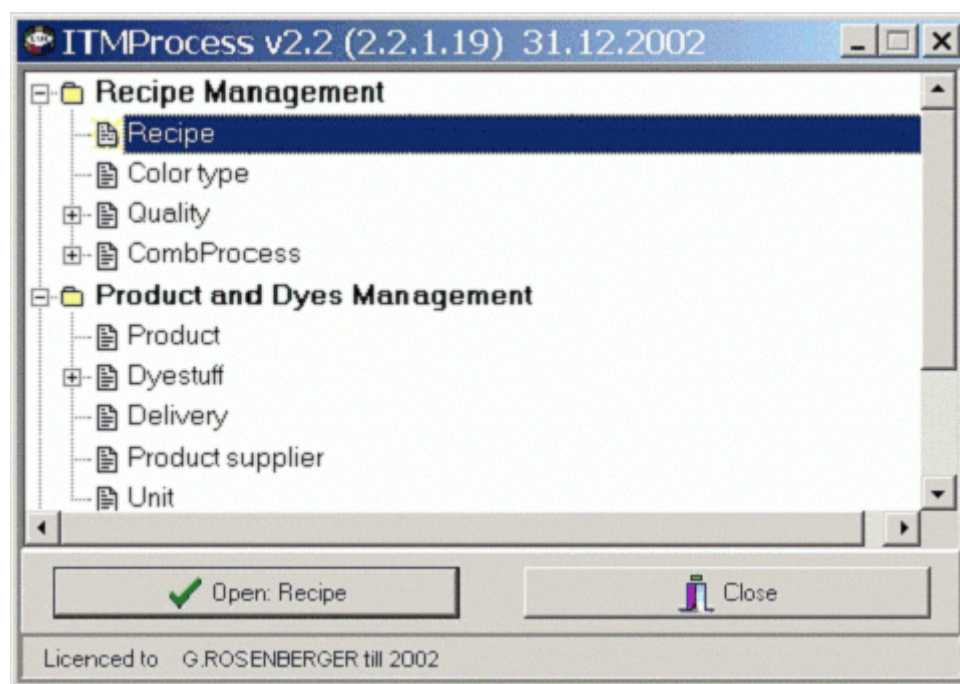
Datacolor TICKET - Dye Lot

	Action	Result/Notes
1	In the „Recipe Selection“ tab of the „New Dye Lot“ dialog box, type the dye lot ID, the dye lot name, and select the recipe.	The „Recipes“ list window appears. Refer to Recipe List Window on page 7-145 .
2	In the „Machine Selection“ tab, select the machine and type the absolute amounts. Liquor ratio or pickup are not controlled by this program.	Refer to the Datacolor PROCESS help. Press F1 .
3	Click Generate to calculate the dye lot.	

Datacolor TICKET - Administration

In the Datacolor MATCH^{Textile} „Overview“ window, click **Administration** to specify and maintain the other data of Datacolor PROCESS such as products, qualities, combined process, etc.

Refer to the Datacolor PROCESS help. Press **F1**.



Datacolor SORT (Option)

Introduction

Traditional "555 shade sorting" is a system for sorting samples into a 3-dimensional array of blocks (centered around the standard) in order to subdivide the "acceptable" matches to the standard into smaller groups. Each group is described using a three digit code. Each digit varies from 1-9 and represents the distance to the standard for each color difference dimension. The center block (containing the standard) is assigned a sort code of "555". Each member of a group is close enough to other members of the same group in color to prevent any noticeable color variation between them. The "size" of each block is set by the user (by means of a tolerance value) to limit the amount of shade variation within each group. The tolerance is a set of three numerical values that control the dimensions of each block, typically in dL^* , dC^* , and dH^* - although variations exist using dL^* , da^* , and db^* as well as HunterLab dL , da , and db .

The selection of the tolerances by the user is critical to the performance of the system. Tolerances that are too large will produce shade groups with excessive shade variations within each group. Tolerances that are too small will result in too many subdivisions of the population, with many of the shade blocks containing only one or two samples.

An alternative to the "555 shade sorting" system is a dynamic sorting system that we will call "clustering" or "grouping". This alternative is realized in the new Datacolor SORT module.

Clustering

Clustering is an alternative to "555 shade sorting", whereby all the samples (rolls, pieces, garments, cones) are placed into groups such that all members of the group may be shipped or cut together. The members of the group have minimal color differences from the overall group average. As described below, there are usually two steps in the process:

- 1 Clustering or grouping the entire population of samples into a manageable number of distinct groups, then:
- 2 a sequencing or tapering process to put the members of the group in the correct order for shipment or cutting.

Jarvis and Aspland at Clemson first developed clustering in the early nineties. The Apparel Research Dept. has a fully functioning garment assembly plant, and shade sorting has always been one of their specialties. Simon developed the original 555 concept there in 1955. Sorting by 555 has certain drawbacks:

- The fixed grid in CIELab or CIELCH results in large numbers of boxes,
- boxes with few members, and
- the corners present problems in that samples can be very similar to a neighbor but are sorted into different boxes.

Clustering eliminates all of these problems by grouping them according to their proximity to each other in a logical fashion, in much the same way you would group them visually. The use of CMC-based ellipsoids for the clusters helps to insure that samples are placed into clusters that best correspond to visual shade grouping. The center of the ellipsoid is taken to be the average of the cluster. Clustering definitely produces fewer groups and a better color agreement within the group.

The only disadvantage is that clustering does not provide a color relationship to the original standard, whereas 555 does. This is not usually a problem, because the clusters can be plotted in color space relative to the standard, and the samples have already been screened for Pass/Fail in the production QC process.

In clustering and tapering methods, there are user-defined criteria that determine the taper sequence(s), the number of clusters, and color differences. These are described in the section below. It must be remembered that there will be samples within a taper or clustering process that fall outside the limits established by the user. In the case of tapering, these samples are "outliers", and are listed as such. In clustering, there may be outliers that do not belong in any cluster. The object is to include all samples, but not to compromise the user's tolerances.

Since clustering usually precedes tapering, the cluster program must be dynamic rather than static. A population may be clustered and the results can be saved as a table, printed, etc. However, as new samples are added to the population, the entire table will change accordingly. If the new samples fall very close to an existing cluster, they will become part of that cluster, and the average of the cluster will be re-calculated. If enough samples fall elsewhere, but are very similar to each other, a new cluster may be formed and the entire population re-clustered.

Tapering

It is best to think of tapering as a sequencing method. A series of dye lots (typically rolls of fabric or cones of yarn) are to be shipped to a given location for cutting and assembly. It is important that the rolls are sent in a sequence such that there is minimal color difference from roll to roll. The rolls are usually cut as they are received. The cutter will therefore have a much easier job if the fabric supplier has already provided the optimum sequence of rolls.

In many dyeing processes, the processes themselves will result in a tapering effect, especially in continuous dyeing of woven fabrics. Factors such as roller pressure and dye tank feeds cause variations in the run, but this variation is gradual. We would expect the variation to occur more often in lightness/darkness and in chroma. Differences in hue can occur, but less frequently, and are associated with the differences in dye substance to the fiber rather than mechanical effects.

Start Datacolor SORT

Sorting with Datacolor SORT is performed using a sort job according to a sort script. Sort criteria is specified in a sort script.



Note

Before you can use the program to cluster and / or taper samples, you have to define „Sort Scripts“. A "Sort Script" contains the conditions and limitations (sort criteria) that are used to build clusters and tapers.

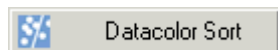
Datacolor SORT can either be installed as a stand-alone application or as a module of Datacolor MATCH^{Textile}.

Starting the Standalone Version



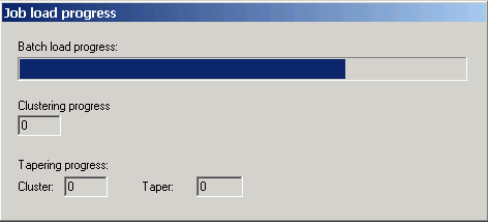
- 1 On the Windows start menu or the desktop, click the Datacolor SORT icon.
The „SORT job“ window appears.

Starting from Datacolor MATCH^{Textile}



- 1 In the “Overview” window of the Datacolor MATCH-^{Textile} explorer, click the Datacolor SORT icon.
The „SORT job“ window appears.

Open a SORT job

	Action	Result/Notes
1	Double-click the job in the „SORT job“ window.	The „Job load progress“ message box shows the progress of the loading.  If the loading is finished, the „Job Result“ window appears. Refer to Job Result Window on page 7-154 .

Specifying a New SORT job

Action	Result/Notes
1	<p>Select either the option New Sort Job from the „Datacolor Sort“ menu or from the context-sensitive menu.</p> <p>The „New Sort Job“ wizard starts. The sort job name may be modified and a description can be entered into the description field.</p> <p>Refer also to Sort Job Maintenance Dialog Box on page 7-160.</p>



Note

Depending to the settings in the „Sort Job Definition Options“, you may not see all pages of the wizard. Refer to [SORT job Definition Options on page 5-133](#).

2 Click **Next**.

The following dialog box appears.

Script and Filter

Script Name and Filter
The Sort Script defines the sort operation, and with the filter you select which batches will be proposed for the sort.

Sort Script: (All Data) ...
Group and Taper CMC ...
Group and Taper; CMC 2:1 F 1.0; Sorted by Color both group and taper; Maximum distance batch to group center 0.2; taper limit 0.3; Taper linear path

☒ I want to use a ColorTools Standard ☐ Automatically include new batches

Standard: (All Data) ...
Bordo ...

Note: If you leave the standard empty, a calculated average will be used

Use only Batches with these properties:

Batch Property	Type	Use Filter	Value
Use only batches from this folder		<input type="checkbox"/>	...
BAT_IMAGE (ImageMaster Batch Image)	Ab	<input type="checkbox"/>	
Length (Length of fabric)	3.1	<input type="checkbox"/>	0.00
Bat_Fabric_Wwidth (Fabric width)	3.1	<input type="checkbox"/>	0.0
BAT_FabricLength (Fabric Length in m)	3.1	<input type="checkbox"/>	0.0
Quality Type (Quality type A, B or C)	Ab	<input type="checkbox"/>	

< Back Next > Cancel

- 3 Select the **Sort Script** containing the sort conditions you need.

For more information about selecting data from the database, refer to [Data Handling on page 5-2](#).

The sort script defines the sort operation. All parameters defined in the sort script are used as defaults. Depending on your access rights, you can modify these default values. Refer to [Specifying a New SORT job on page 5-122](#) and [Modifying a Sort Script on page 5-130](#).

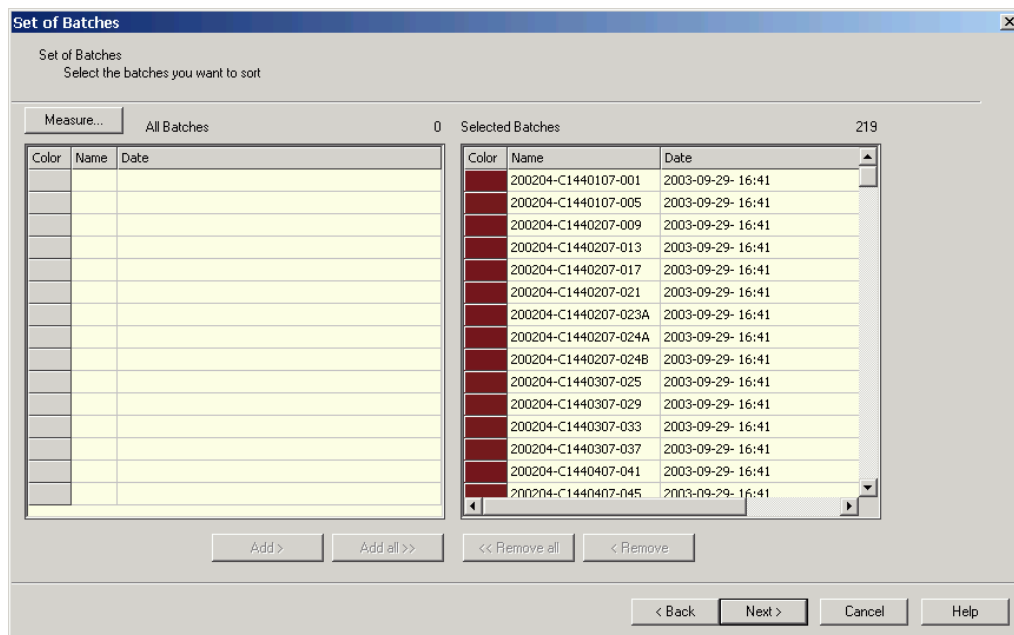
- 4 Select a standard from the database or click the **Measure** button. The „Measurement“ dialog box appears. Refer to [Calibration and Measurement on page 5-10](#).
- 5 You can set filters to reduce the number of batches that are displayed for selection. A filter might be a specific folder or any user defined field you have created either with Datacolor TOOLS or with Datacolor SORT.

If you do not select a standard, the program calculates the average of all batches and uses this as the theoretical standard for the pass/fail decision.



Notes

- If you check „I want to use a Datacolor TOOLS Standard“ only Datacolor TOOLS standards are displayed to select from. The batches linked to this standard are listed on the next page. They are already selected if „Automatically include new batches“ is checked. In this case, it is not possible to remove batches from the list. This is only possible if „Automatically include new batches“ is not selected.
- Click the **Measure** button to measure more batches.



- 6 The next pages of the SORT job wizard are the same as described in chapter „*Specifying A New Sort Script*“.
- Depending on your access rights set in the sort job definition options. You can now modify all grouping and tapering parameters.
- Refer to *Specifying A New Sort Script on page 5-126*.
- Refer to *SORT job Definition Options on page 5-133*.

Modifying a SORT job

	Action	Result/Notes
1	Select either the option Maintain Sort Job on the „Datacolor Sort“ menu or on the context-sensitive menu.	The „Sort Job Maintenance“ dialog box appears. Refer to Sort Job Maintenance Dialog Box on page 7-160 .
2	Modify the data and click OK .	

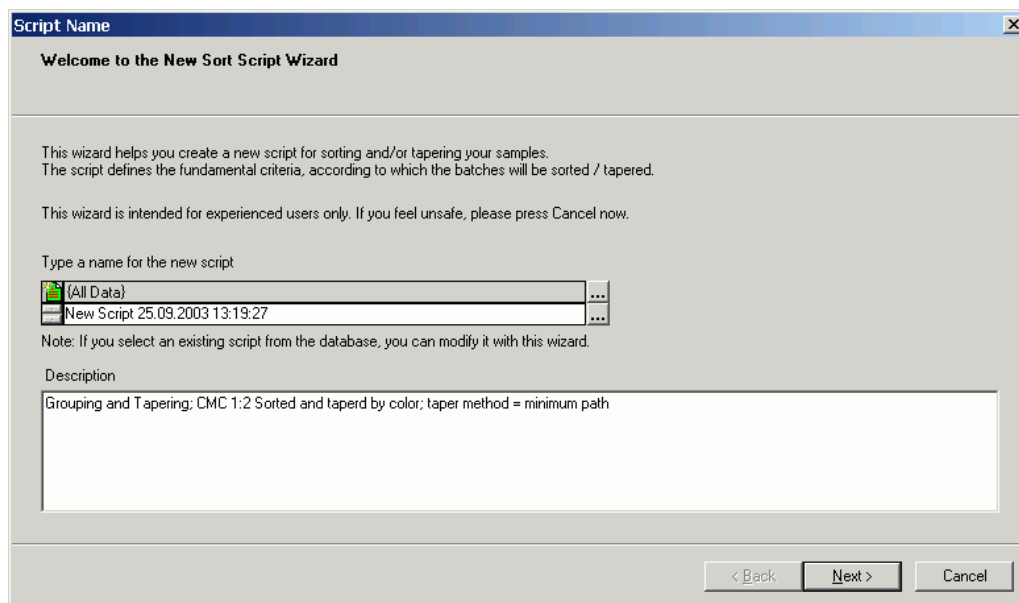


Note

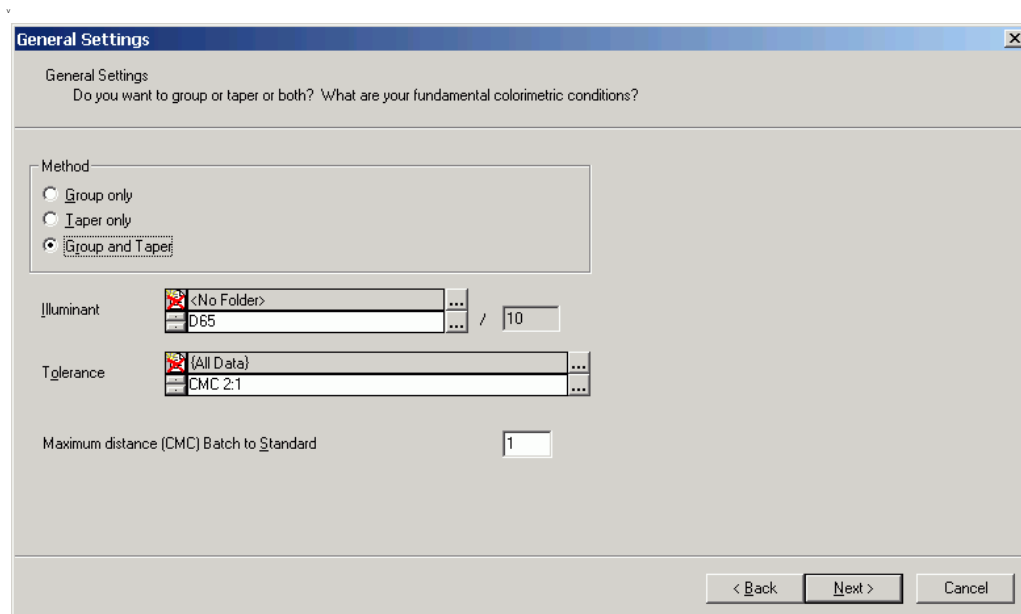
The data you can change depends on your access rights and the job itself.

Specifying A New Sort Script

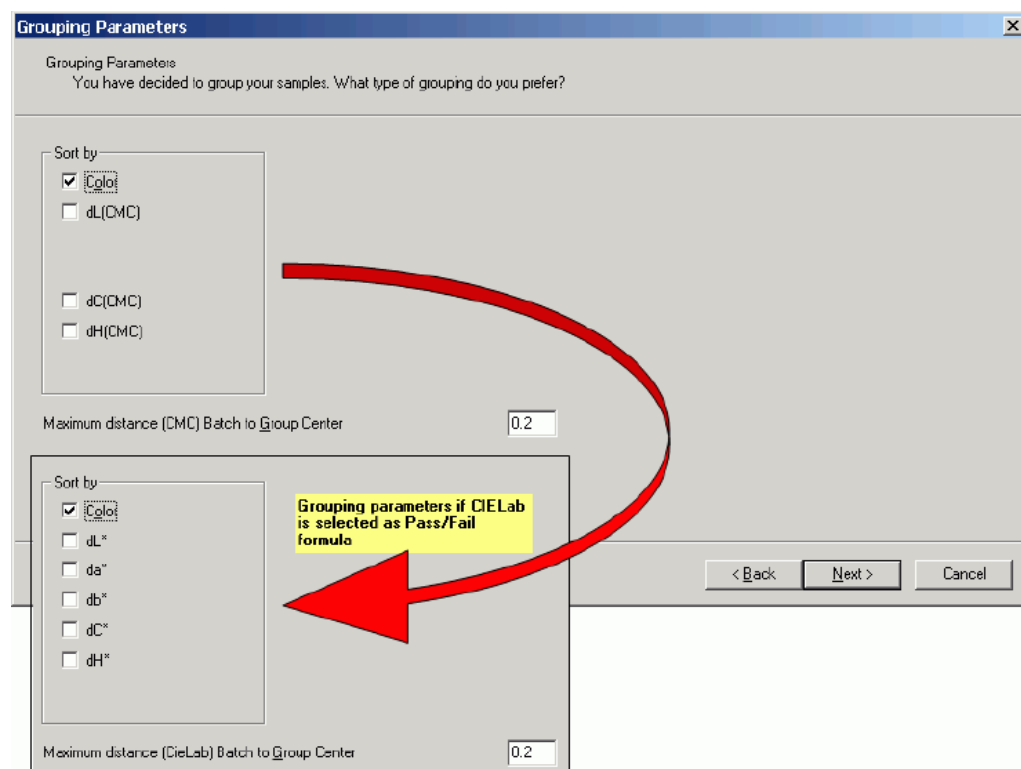
Action	Result/Notes
1 Select either the option New Sort Script on the „Datacolor Sort“ menu or on the context-sensitive menu.	The „New Sort Script“ wizard starts. The sort job name may be modified and a description can be entered into the description field. Refer also to Sort Script Maintenance Dialog Box on page 7-167 .



- | | | |
|---|--|--|
| 2 | You can modify the name (default is New Script <date and time>) of the script and you can describe the script. | Refer to Script Name Tab on page 7-167 . |
| 3 | Click Next . | The following dialog box appears. |



- 4 Define which sorting method, illuminant, tolerance formula and tolerance factor you would like to use. Refer to [General Settings Tab on page 7-168](#).
- 5 Click **Next**. The following dialog box appears.

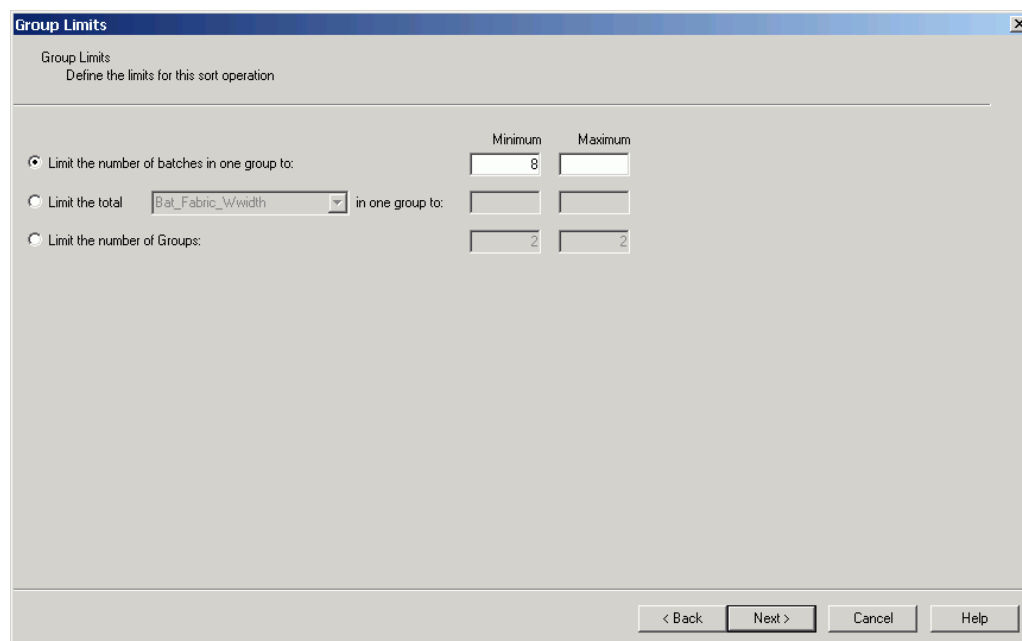


6 Select the sorting type.

The grouping parameters you can select are dynamic and depend to the selected tolerance formula.

7 Click **Next**.

The following dialog box appears.



The 'Group Limits' dialog box is titled 'Group Limits' with a subtitle 'Define the limits for this sort operation'. It contains three radio button options for limiting the data:

- ☒ Limit the number of batches in one group to: This option has two input fields labeled 'Minimum' and 'Maximum'. The 'Minimum' field contains the value '8'.
- ☐ Limit the total [Ba_Fabric_Wwidth] in one group to: This option has two empty input fields labeled 'Minimum' and 'Maximum'.
- ☐ Limit the number of Groups: This option has two input fields labeled 'Minimum' and 'Maximum', both containing the value '2'.

At the bottom right of the dialog box are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

Parameters

Limit the number of batches in one group to:

You can define a minimum and a maximum number of batches in a group. If no maximum is given, there is no limit.

Limit the total (XXX) in one group to

Here you can limit the group to the value of a user defined field, e.g., fabric length, quality level, etc.

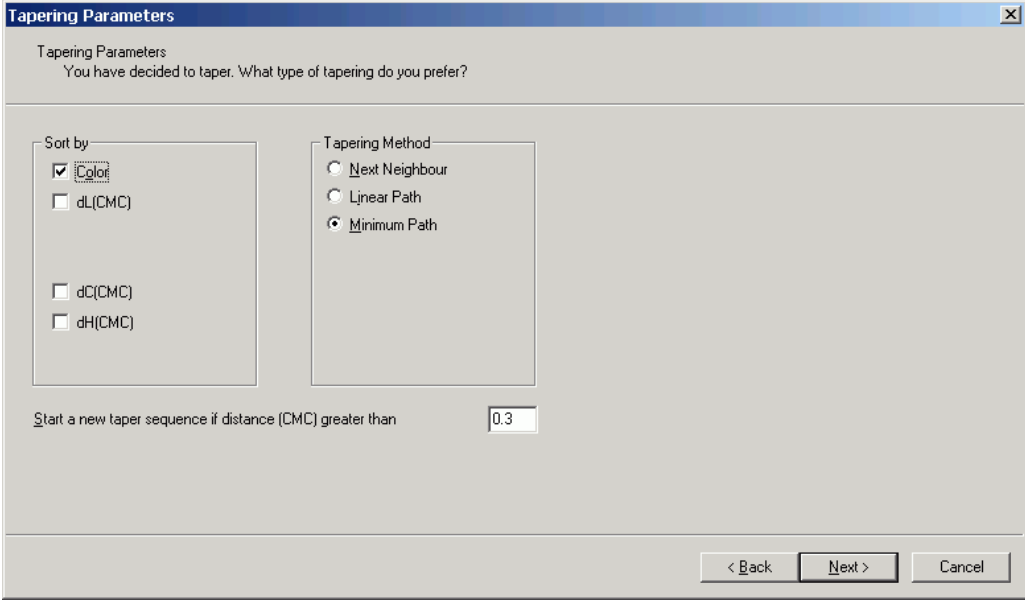
Limit the number of groups

This limits the number of groups to the range you type in.

8 Select the group limits.

9 Click **Next**.

The following dialog box appears.



Tapering Parameters

Tapering Parameters
You have decided to taper. What type of tapering do you prefer?

Sort by:

- ☒ iColor
- ☐ dL(CMC)
- ☐ dC(CMC)
- ☐ dH(CMC)

Tapering Method:

- ☐ Next Neighbour
- ☐ Linear Path
- ☒ Minimum Path

Start a new taper sequence if distance (CMC) greater than

< Back Next > Cancel

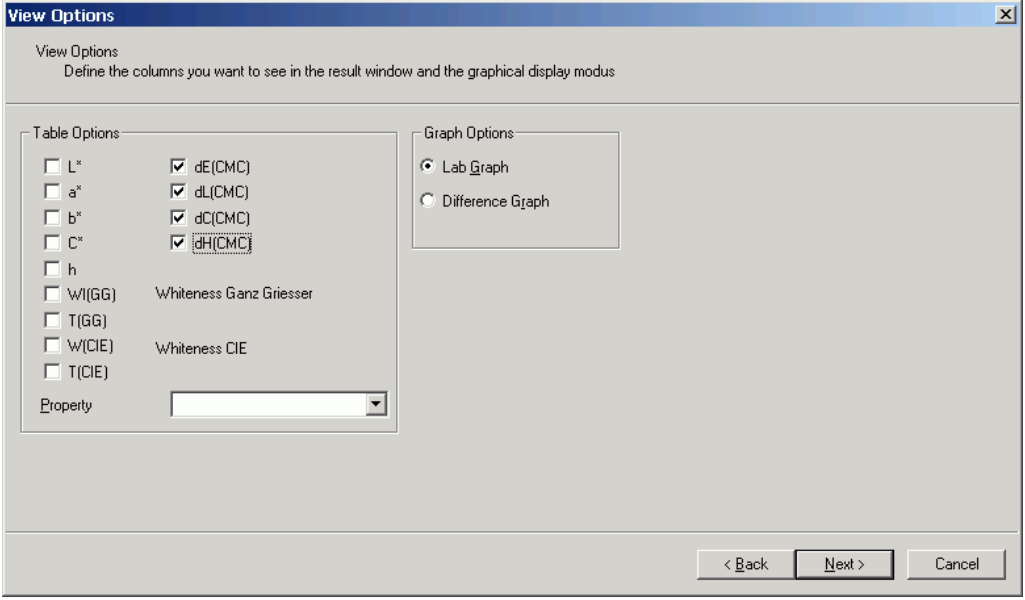
- 10 Select the tapering parameters.

The parameters can be different than selected for clustering. In addition to the sort type you must select a tapering method.

Refer to [Tapering Parameters Tab on page 7-163](#).

- 11 Click **Next**.

The following dialog box appears.



View Options

View Options
Define the columns you want to see in the result window and the graphical display modus

Table Options:

- ☐ L*
- ☐ a*
- ☐ b*
- ☐ C*
- ☐ h
- ☐ W(GG) Whiteness Ganz Griesser
- ☐ T(GG)
- ☐ W(CIE) Whiteness CIE
- ☐ T(CIE)
- Property

Graph Options:

- ☒ Lab Graph
- ☐ Difference Graph

< Back Next > Cancel

- 12 Define what you would like to see in the results window.

Refer to [View Options Tab on page 7-165](#).

- 13 Click **Next**.

The following dialog box appears.

The last wizard page is used to set up the output and to select the coding you would like to use for groups (clusters) and tapers. The print output sort order is linked to individual print forms. One is used to print the job ordered by Group/Taper code, and the second is sorted identically to the order you have displayed in the output screen. You can change the order in the output screen by clicking in the table columns.

- 14 Click **Next** to finish the wizard.

Modifying a Sort Script

Action	Result/Notes
1 Select either the option Maintain Sort Script on the „Datacolor Sort“ menu or on the context-sensitive menu.	The „Sort Script Maintenance“ dialog box appears. Refer to Specifying A New Sort Script on page 5-126 and Sort Script Maintenance Dialog Box on page 7-167 for more information about the settings.
2 Modify the data and click OK .	



Note

Existing sort jobs are not modified automatically if you change the sort script. Modifications are taken into account if you recalculate the sort job.

Maintain the Sample Property

With the „Maintain Sample Property“ function, you can add or modify a sample property and its value (user defined field).

In the „Property“ tab, it is possible to specify or modify a property.

In the „Sample Property“ tab, you can set the values.

Properties and values are assigned to the batch selected in the table. The new property is added to the Datacolor file USER.FLD.

Action		Result/Notes
1	Select the option Maintain Sample Property either on the „Datacolor Sort“ menu or on the context-sensitive menu.	The „Sample Property“ dialog box appears. Refer to Sample Property Dialog Box on page 7-169 .
2	Modify the data and click OK .	

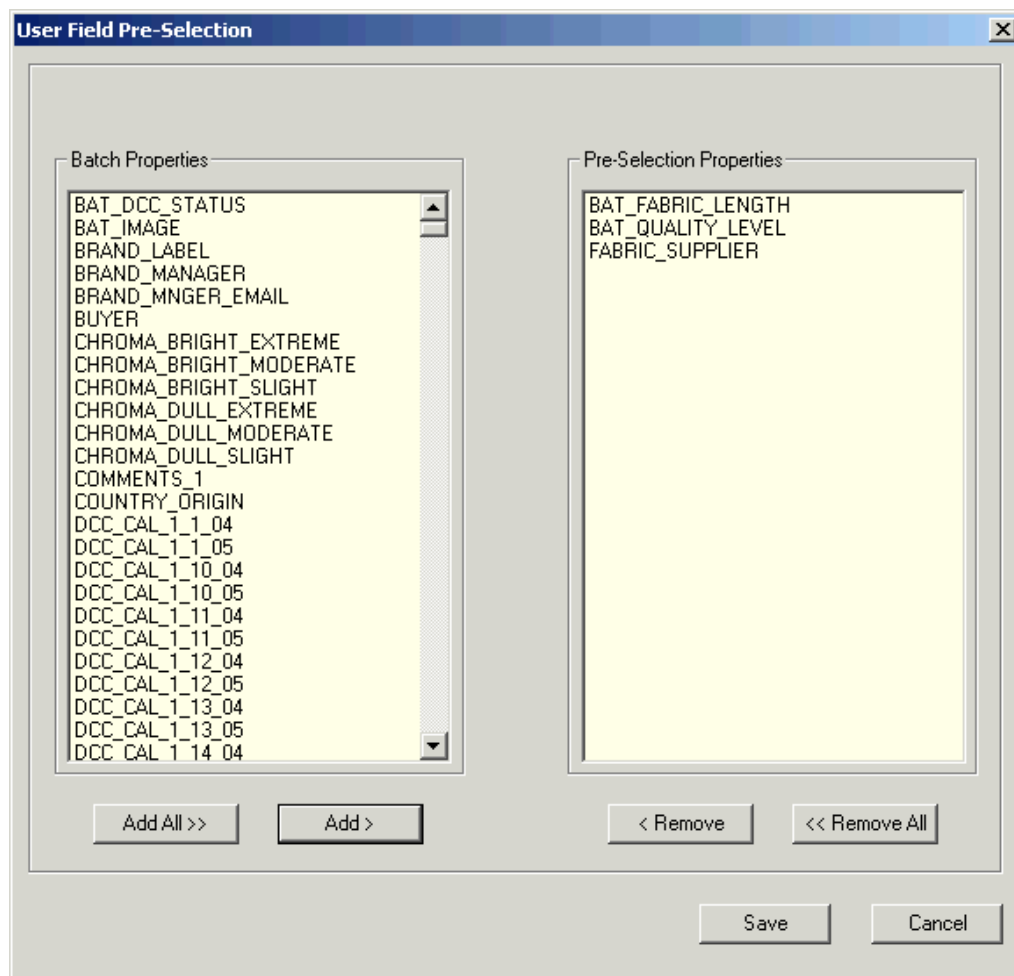


Note

If you have installed Datacolor TOOLS, do not add or modify properties in Datacolor SORT. This may affect your Datacolor TOOLS desktop data. Properties may be used as input fields by screen forms in Datacolor TOOLS. Make all modification with Datacolor TOOLS Form Editor instead.

Pre-Selections of User Defined Fields

The „User.fld“ file may contain many fields that cannot be used by Datacolor SORT. This task is used to select only relevant user defined fields for Datacolor SORT.



Action	Result/Notes
1 Select the fields in the „Batch Properties“ list box and click Add to move them into the „Pre-Selection Properties“ list box.	Datacolor SORT shows only the pre-selected fields to filter the sample list according your field settings or to input the batch property field value when you measure new batches.

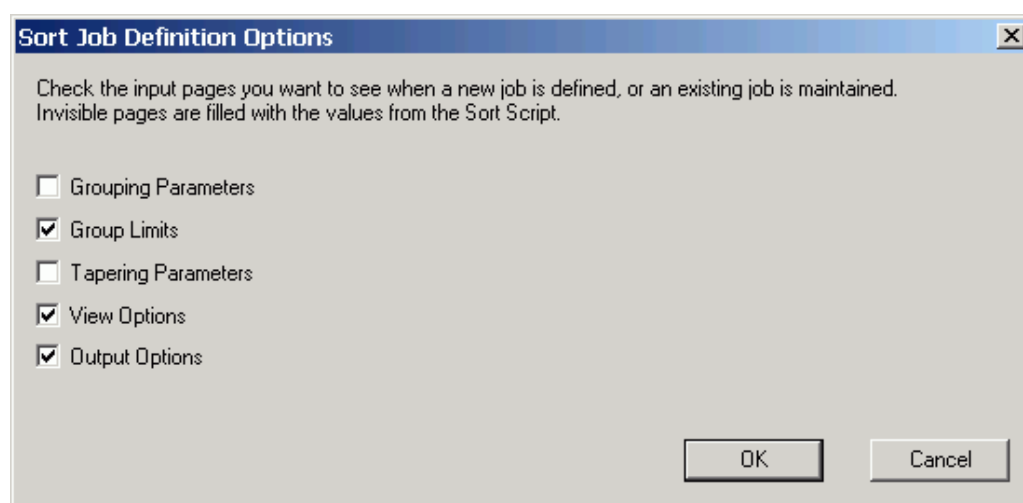
SORT job Definition Options

This function program is used to create or modify tolerances. Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

	Action	Result/Notes
1	Select either the option Sort Job Definition Options on the „Datacolor Sort“ menu or on the context-sensitive menu.	The „Sort Job Definition Options“ dialog box appears. Refer to Sample Property Dialog Box on page 7-169 .
2	Modify the data and click OK .	

Check the input pages you want to see when a new SORT job is defined.

The default settings for the sort job definition are:



Note

If you want to be sure that a user works only with the predefined settings of the Sort Script, you have to limit the access rights, respectively.

Login as User „DCI“ and run the option „User Administration“ (Menu Tools → User Manager → User Administration).

Datacolor BLEND (Option)

Datacolor BLEND is a color recipe prediction software, especially designed to assist users in the complex process of fiber-blending.

Datacolor BLEND is a powerful tool for calculating the required amounts of pre-dyed fiber material to be used in the fiber-blending process, for both laboratory and production use. Datacolor BLEND is designed with user-friendliness in mind. Each color can be calculated as a mixture of any fiber material, and from any shade. An important additional function is that dyeing recipes can be predicted with Datacolor MATCH^{Textile}, in order to calculate the dyestuff amounts for dyeing fibers not currently in stock.

The functions for recipe creation and correction help the user to calculate blends with maximum efficiency, and, where required, at the lowest cost.

Datacolor BLEND is based on Datacolor MATCH^{Textile}, the most comprehensive color recipe software for textile processing.

The application of fiber blending (melanges) requires different mathematics in order to calculate the amounts of individual colored fibers required to specify a melange fabric (felt, garment, etc.).

Companies that are involved in this application either use dyed fiber skeins only, and mix them in various percentages to obtain the desired mixture, or have their own (fiber) dye house for producing the "raw" material themselves, and are capable of carrying out supplementary dyeing if a mixture of existing colored fibers does not result in the target color. In addition to the demand for blending and dyeing, several fabrics are also created by mixing different materials (CO/PES).

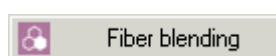
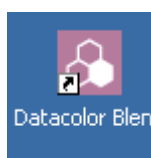
The Datacolor BLEND module for Datacolor MATCH^{Textile} is able to serve all the process demands of fiber blenders, as it offers the capability of calculating the required percentages of pre-colored fibers and of calculating the "supplementary dyeing".

The data set preparation for fiber blending is different from the calibration series for dyeing. It is necessary to have a set of black and white fiber mixtures and a 100%-representative sample of each color. The data set preparation of Datacolor MATCH^{Textile} has been modified to reflect these requirements, and, in addition, the matching and correction user interfaces have been adapted.

Starting Datacolor BLEND

Datacolor BLEND can either be installed as a stand-alone application or as a module of Datacolor MATCH^{Textile}.

Starting Datacolor BLEND



- 1 On the Windows start menu or the desktop, click the Datacolor MATCH^{Textile} or the Datacolor BLEND icon.
The Datacolor MATCH^{Textile} explorer with the "Overview" window appears.
- 2 Click the **Fiber Blending** icon.
The „Recipe List Window“ with the existing blend recipes appears.
Refer to [Recipe List Window on page 7-91](#).

Specifying A New Fiber Set

Similar to Datacolor MATCH^{Textile} colorant sets, you must specify fiber sets before you can calculate fiber recipes. The colorant set preparation program (Colibri) contains therefore a new option to build such fiber sets.

	Action	Result/Notes
1	Select the option General Calibration on the „File“ menu.	The „Colorant Set List“ window with the existing fiber sets appears. Refer to Colorant Set List Window on page 7-76 .
2	On the „Colorant set“ or the context-sensitive menu, select New → Fiber Mixing .	The „Fiber Set“ window appears. Refer to Blend Fiber Set Window on page 7-173 .
3	Specify the fiber set name	<ul style="list-style-type: none"> The ID is built using the 24 leading characters and can be modified. Automatically, the „Industry Type“ is set to „Fiber blending“ and the process is created. The default „Calibration Method“ is „Rohner Function“. You can select „Approximation“.
4	Continue with Black and White Fibers on page 5-136 .	

Black and White Fibers

Action	Result/Notes
1	In the table column „Product“, click New .

Product	Values
Name	White-Wool
Product Supplier ID	DC
Product Type	Black or White
Note	
Actual Price	1
Creation Date	
Modification Date	

- Specify name, product supplier, and actual price.
- Click **OK**. The „Black Fiber“ dialog box appears.

Product	Values
Name	Black-Wool
Product Supplier ID	OC
Product Type	Black or White
Note	
Actual Price	4
Creation Date	
Modification Date	

4 Specify name, product supplier, and actual price.

5 Click **OK**.

The „Create Calibration Series“ dialog box appears.

Create calibration serie

Product: (All Data) Wool-white-felt

New Modify

Product	#	Quantity	[2]	[3]	[4]
Wool-white-felt	4	100.00	95	90	70
Black-wool-felt	4	0.00	5.00	10.00	30.00

Type of sample input: ☒ Measurements ☐ From database

Normalize mixture to: 100

Complete mixture to: 100

Measure with inputs of concentration values

Prefix: Wool-white-felt

Sample: Wool-white-felt [100.00/ 0.00]

Multiple: ☒

1 / 4

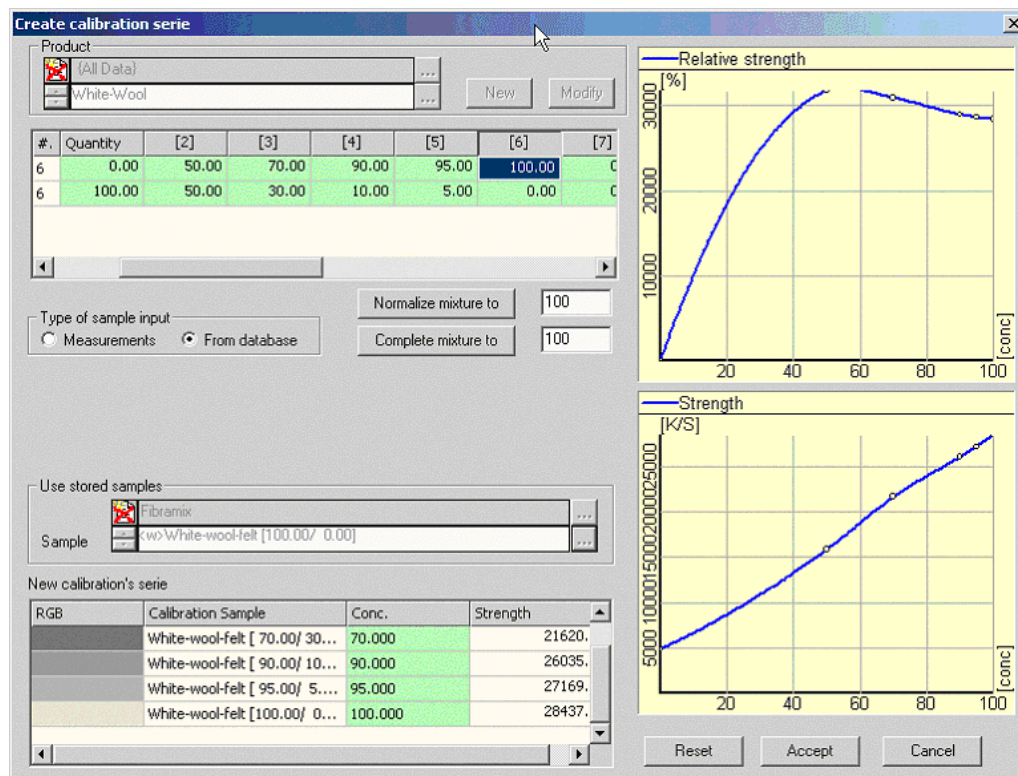
New calibration's serie

RGB	Calibration Sample	Conc.	Strength
-----	--------------------	-------	----------

Reset Accept Cancel

- 6 Fill in the concentration of the white fiber part.
Click then **Complete mixture to**.

The program completes the black fiber concentrations.



- 7 Select or measure the samples and click **Accept**. The „Fiber Set“ window appears with the specified fibers.
- 8 **Continue** with *Colored Fibers on page 5-140*.

Colored Fibers

	Action	Result/Notes
1	In the table column „Product“, click New .	The „Create Calibration Series“ dialog box appears.
2	Click New .	The „Product Definition“ dialog box appears.

Product	Values
Name	* Wool/ Yellow
Product Supplier ID	DC
Product Type	Color Fiber
Note	
Actual Price	10
Creation Date	
Modification Date	

- Specify name, product supplier, and actual price.
- Click **OK**.
The „Create Calibration Series“ dialog box appears.

Create calibration serie

Product

{All Data}	...
Wool Yellow	...

New Modify

Product	#	Quantity
Copy of Wool Yellow	1	100.00

Type of sample input

☒ Measurements ☐ From database

Measure with inputs of concentration values

Prefix Copy of 'Wool Yellow' ☒ Multiple 1 / 1

Sample Copy of 'Wool Yellow' [100.00]

New calibration's serie

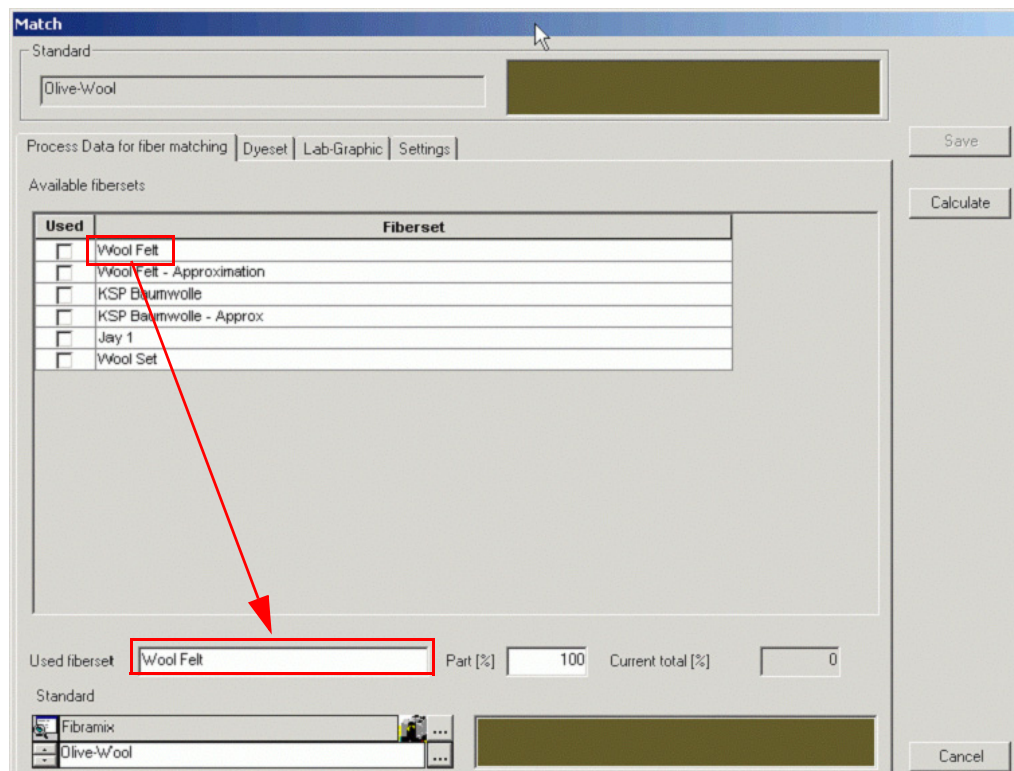
RGB	Calibration Sample	Conc.	Strength
-----	--------------------	-------	----------

Reset Accept Cancel

- 5 **Measure** the sample. Refer to [Calibrating Your Spectrophotometer on page 5-10](#) and [Measurement on page 5-20](#).
- 6 Click **Accept**. The new color fiber is added to the fiber set.
The program goes back to the „Fiber Set“ window.
- 7 Specify the other colored fibers in the same way.

Recipe Calculation

Action	Result/Notes
1 On the context-sensitive menu of the „Recipe List“ window, click Match .	The „Match“ dialog box appears. Refer to BLEND Match Dialog Box on page 7-176 .



- 2 Select the standard.
- 3 Select a fiber set by double-clicking the name. The fiber set appears in the list box „Used fiber set“. The „Part“ is set to 100%.

Standard: Olive-Wool

Process Data for fiber matching | Dyeset | Lab-Graphic | Settings

Fiberset: Wool Felt | Part [%]: 100

Batch and color difference: {All Data}

Share: [] | Max Of Share: [] | --> R%

dE/Mi theory to standard
dE/Mi theory to batch

Selection:

0/1	A/S/M	Dyestuff	Compul	Fixed	Min.(100%)	Max.(100%)	Relation
1	<input checked="" type="checkbox"/>	Wool-white-felt	<input type="checkbox"/>			100	
2	<input checked="" type="checkbox"/>	Black-wool-felt	<input type="checkbox"/>			100	
3	<input checked="" type="checkbox"/>	Yellow-wool-felt	<input type="checkbox"/>			100	
4	<input type="checkbox"/>	Orange-wool-felt	<input type="checkbox"/>			100	
5	<input checked="" type="checkbox"/>	Red-wool-felt	<input type="checkbox"/>			100	
6	<input checked="" type="checkbox"/>	Blue-wool-felt	<input type="checkbox"/>			100	
7	<input type="checkbox"/>	Navy-wool-felt	<input type="checkbox"/>			100	
8	<input type="checkbox"/>	Grey-wool-felt	<input type="checkbox"/>			100	
9	<input type="checkbox"/>	Brown-wool-felt	<input type="checkbox"/>			100	

- 4 In the „Dye Set“ tab, select the fibers you want to use. Refer to [Dye Set Tab on page 7-177](#) and [Lab Graphic Tab on page 7-178](#).




Note

The fiber selection is more important for this application than with Datacolor MATCH^{Textile}, because the program may calculate many recipes with a good colorimetric result, but the visual effect depends strongly to the fiber colors of the standard. The measurement of the standard is an average of all colors used for the standard.

- 5 Set the parameters of the „Settings“ tab, if necessary. Refer to [Settings Tab on page 7-120](#).
- 6 Click **Calculate**. The „Recipe List“ appears. Refer to [BLEND Recipe Calculation Result Table on page 7-179](#) and [Review \(recipe table\) on page 5-76](#).
- 7 Select the recipe in the table and save it.

Result Table of Recipe Calculation

DCIMatch - [Olive-Wool - 001]																
File Table Tools Instrument Window Help																
																
Standard Olive-Wool Formula CieLab Default[D65,A,F11]																
dE* D65	1	0.56	0.57	0.62	0.62	0.63	0.67	0.67	0.74	0.76	0.79	1.49	1.70	1.85	2.29	2.40
dE* A	0	0.56	0.55	0.61	0.58	0.58	0.63	0.65	0.70	0.78	0.70	1.44	1.56	1.69	2.28	2.45
dE* F11	0	0.68	0.61	0.70	0.67	0.67	0.71	0.73	0.78	0.82	0.78	1.49	1.71	1.87	2.35	2.44
dE* Average	0	0.57	0.58	0.64	0.63	0.63	0.67	0.68	0.74	0.79	0.76	1.47	1.66	1.80	2.31	2.43
Metamerism A	0.7	0.05	0.07	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.08	0.22	0.23	0.13	0.19	0.15
Metamerism F11	0	0.17	0.17	0.18	0.17	0.17	0.16	0.16	0.17	0.14	0.09	0.06	0.04	0.25	0.25	0.25
CMCCON02 A	0	3.00	2.99	2.98	2.98	2.98	2.97	2.97	2.97	2.98	2.95	2.91	2.82	2.79	2.97	3.02
CMCCON02 F11	0	2.11	2.12	2.14	2.13	2.13	2.11	2.11	2.09	2.13	2.10	2.06	2.05	2.04	1.86	1.91
Price	0	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.65	1.66	1.60	1.62	1.63	1.67	1.68
Total concentration [%]		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Trial	XX															
Dyestuff	1(3)	2(4)	3(3)	4(2)	5(4)	6(4)	7(4)	8(4)	9(4)	10(4)	11(4)	12(4)	13(4)	14(2)	15(3)	
Wool-white-felt			0.0000				0.0001			0.1306	0.0014		0.0001			
Black-wool-felt	29.4717	29.7363	30.1544	30.3211	30.2186	28.0384	27.6538	26.0062	26.9741	30.7579	26.4411	25.9293	25.5401			
Yellow-wool-felt	69.5161	69.5865	69.8456	69.6789	69.8881	69.8763	69.9470	70.0170	69.1112	69.1113	68.0323	63.9749	63.2585	72.3544	73.0672	
Orange-wool-felt								0.0000	0.0005	0.0002						
Red-wool-felt			0.0000													
Blue-wool-felt	1.0122	0.8972														0.0003
Navy-wool-felt					0.0927	2.0817	2.3991	3.9768							27.6456	26.9325
Grey-wool-felt						0.0036			1.9142		7.5252	0.0112				
Brown-wool-felt					0.0005							10.0646	11.2013			
Recipe with D65																
Standard with D65																

Recipe Calculation with several Fiber Sets



Note

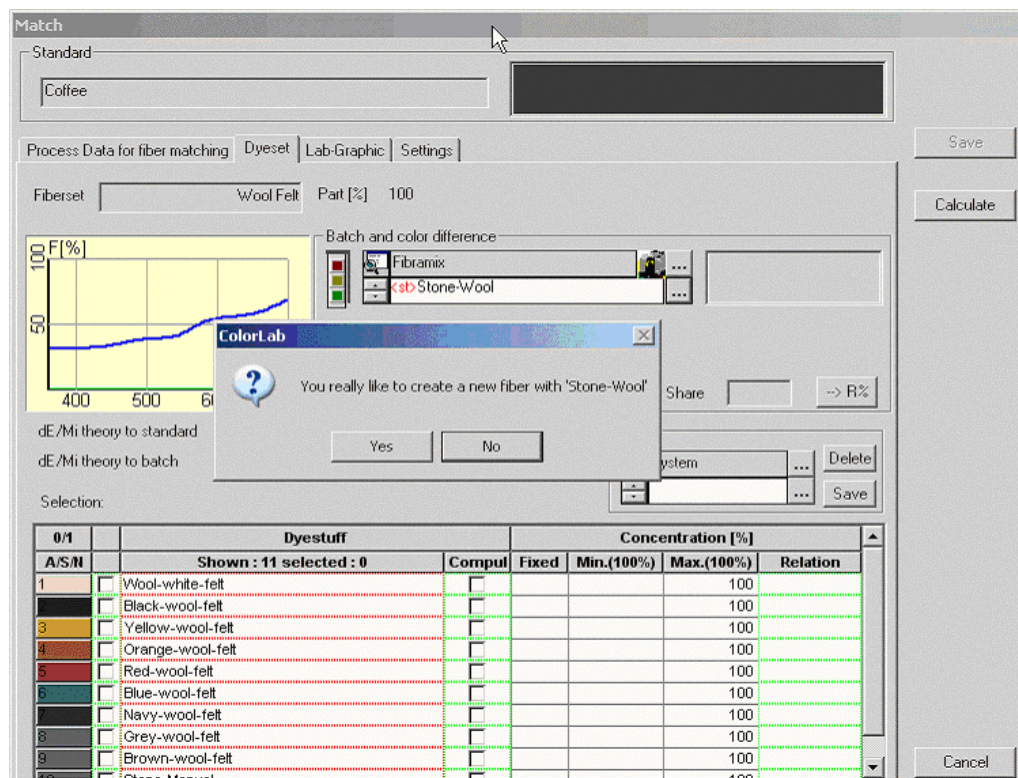
If you want to calculate a recipe for several fibers, e.g., Polyester/Wool, you must change the „Part“ to the percentage used for fiber set 1. If the „Part“ is not equal 100%, the program asks for a 2nd, 3rd, ... Fiber sets as soon, as the recipe for the 1st fiber set is calculated.

The recipes are calculated one after the other, because the 2nd fiber recipe is influenced by the first. This behavior of Datacolor BLEND is a different to Datacolor MATCH^{Textile}.

- 8 Select the next fiber set and repeat the calculation procedure starting with instruction 3.

Recipe Calculation with An Existing Production Lot of Used Fibers

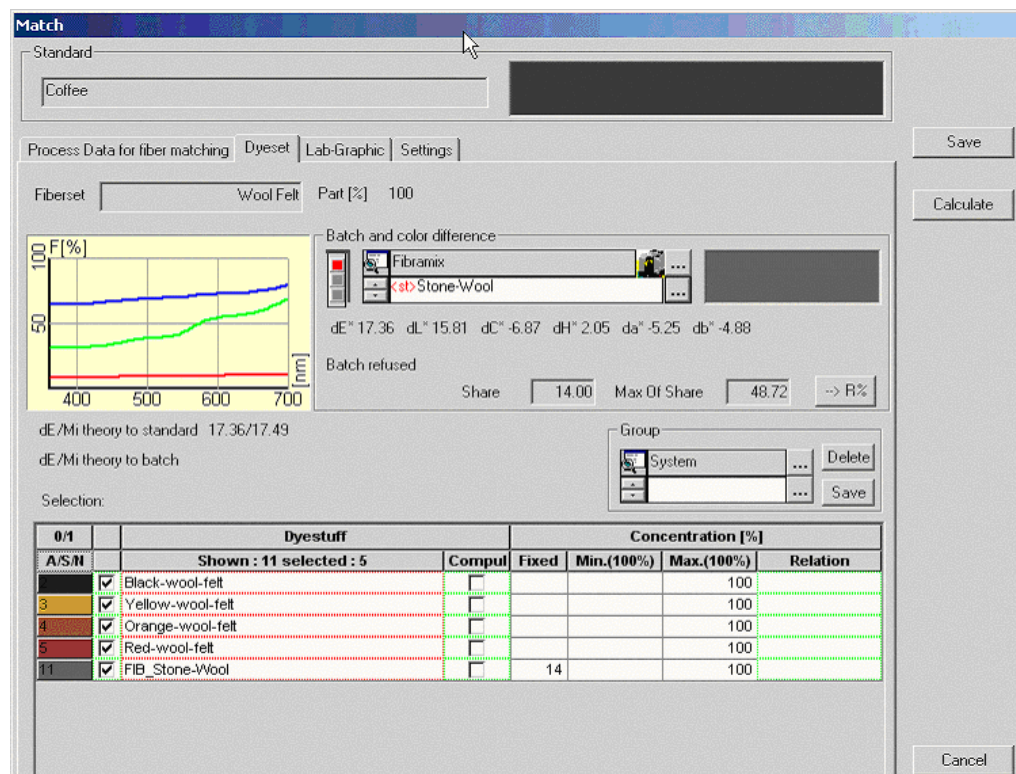
If an existing production lot should be used as fiber for the recipe calculation, you must measure or select a sample of the production lot as batch. The program asks, if you like to specify a new fiber (based on that measurement) and gives a proposal for the maximum percentage this fiber can be used. This value is very rough information. In reality, you should start with smaller concentration. If no recipe can be calculated, you can switch back to modify the concentration again.



Example

The program asks to specify a new fiber on base of the batch measurement „Stone-Wool“. A fiber with the name „FIB_Stone-Wool“ is created.

These automatically created fibers cannot be used in the normal matching routine. They are hidden.



The proposal (Max Of Share) for the „Batch-Fiber“ is given with 48.72%. For this example the share is reduced to 14.00%. Some information can be get in the graph. The blue curve represents the batch, the green curve the standard and the red curve is the theoretical curve representing the part that is used (share). Very important is that the red curve is below the green curve of the standard.

Calculated recipes with 14% of the batch already produced.

DCIMatch - [Coffee - 001]				
File Table Tools Instrument Window Help				
Standard Coffee				
Formula Cielab Default[D65]				
dE* D65	1	0.02	0.26	2.13
Metamerism A	0.7	0.22	0.29	0.81
Metamerism F11	0	0.12	0.14	0.65
CMCCON02 A	0	1.18	1.22	2.02
CMCCON02 F11	0	0.81	0.80	0.76
Sensitivity (Hue)	0	0.42	0.32	0.21
Price	0	1.10	1.10	1.26
Total concentration [%]	100.00	100.00	100.00	100.00
Trial				
Dyestuff		1(4)	2(3)	3(4)
Black-wool-felt	45.8852	45.8604	39.6500	
Yellow-wool-felt	1.0780		19.6466	
Orange-wool-felt	39.0368	40.1396		
Red-wool-felt			26.7034	
FIB_Stone-Wool	14.0000	14.0000	14.0000	
Recipe with D65				
Standard with D65				
Standard with A				
Recipe with A				

Calculation of the Theoretical Color Needed to Correct the Filer Lot

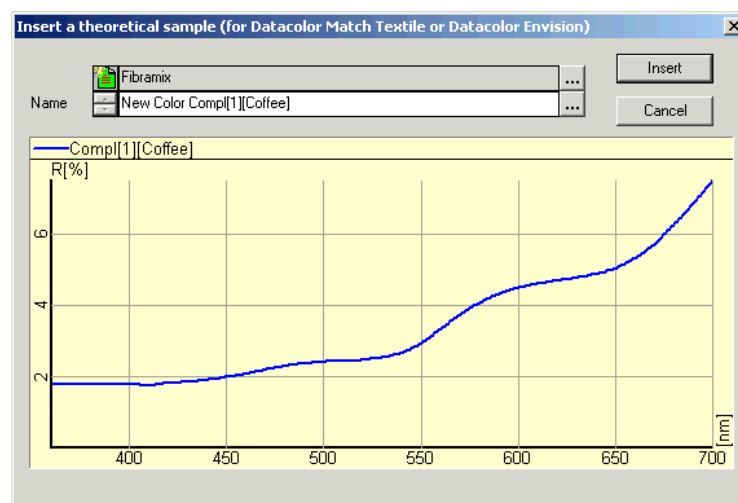
Instead of calculating a recipe using a part of the existing lot, it is possible to calculate the theoretical reflectance curve of the color that is necessary to correct the existing lot. The theoretical reflectance curve is used in Datacolor MATCH^{Textile} to calculate a recipe for dyeing a new fiber. This new fiber is blended later with the existing lot.

O/I	A/S/M	Dyestuff	Compul	Fixed	Min.(100%)	Max.(100%)	Relation
		Shown : 8 selected : 5					
	<input checked="" type="checkbox"/>	Black-wool-felt	<input type="checkbox"/>			100	
3	<input checked="" type="checkbox"/>	Yellow-wool-felt	<input type="checkbox"/>			100	
4	<input checked="" type="checkbox"/>	Orange-wool-felt	<input type="checkbox"/>			100	
5	<input checked="" type="checkbox"/>	Red-wool-felt	<input type="checkbox"/>			100	
9	<input checked="" type="checkbox"/>	FIB_Stone-Wool	<input type="checkbox"/>	14		100	

Action

Result/Notes

- Click -> R% to calculate the theoretical reflectance curve. The „Insert a theoretical sample“ dialog box appears.

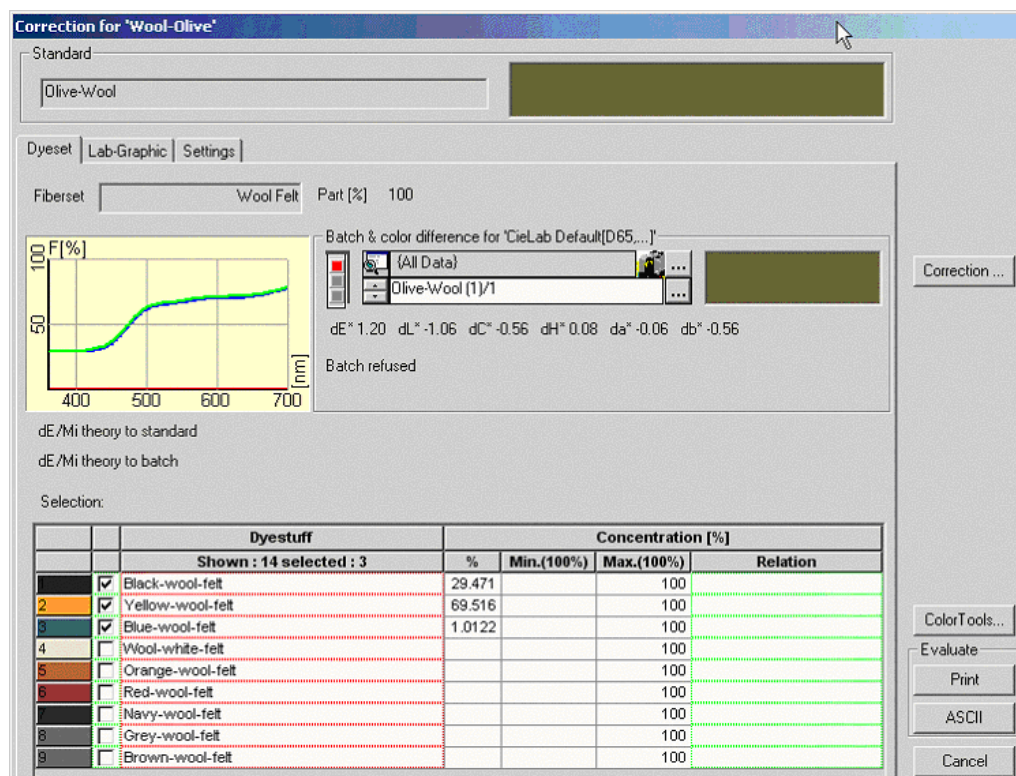


- Accept or modify the sample name and click **Insert** to save the sample. The sample can now be used for matching in Datacolor MATCH^{Textile}.

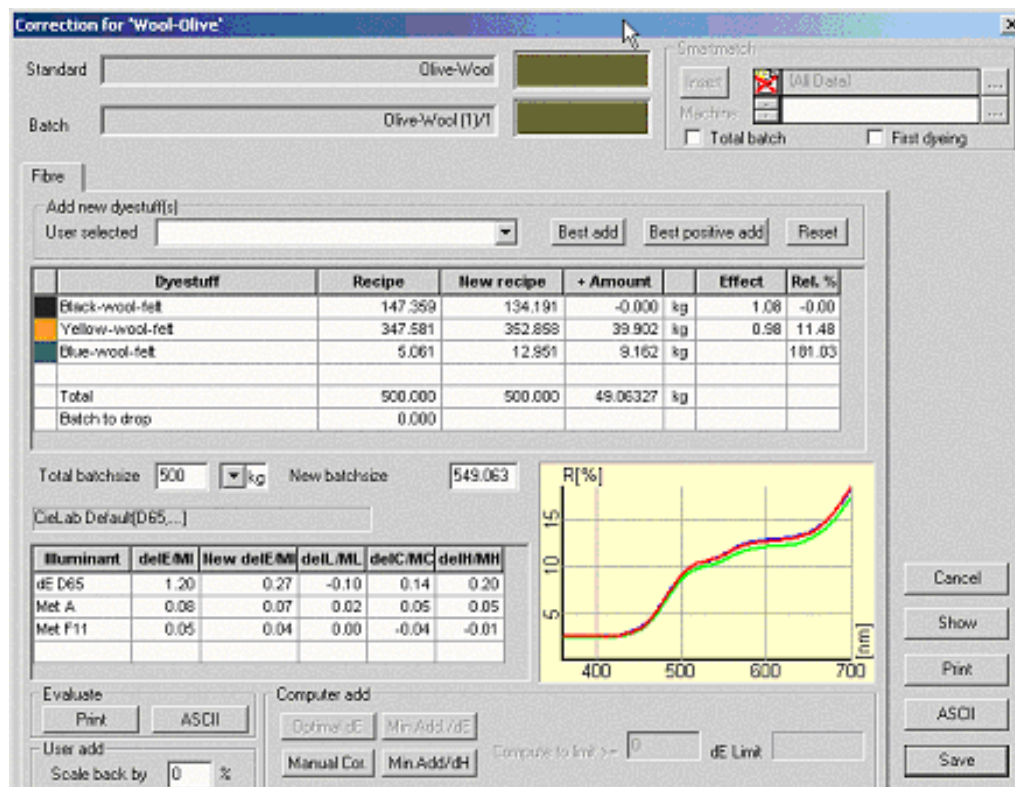
Recipe Correction

The Datacolor BLEND correction task does not distinguish between laboratory and production correction. Both corrections are calculated. The new recipe is saved as soon as the correction is saved. In the correction printout are both, the new recipe and the addition, if a production correction is required.

Action	Result/Notes
1 In the „Recipe List“ window, select the recipe and on the context-sensitive menu select Pass Fail and Correction (or press F7).	The „Correction Dialog“ box appears. Refer to BLEND Correction Dialog Box on page 7-179 .



- | | |
|---|---|
| <p>2 In the “Batch and Color Difference” field, measure or select the sample.</p> <p>3 If necessary, alter the data in the dyestuffs table.</p> <p>4 Click Correction.</p> | <p>Refer to Matching on page 5-74, section Selecting dyestuffs for matching on page 5-71.</p> <p>The “BLEND Correction Recipe Dialog Box” appears.
Refer to Specifying, Modifying and Deleting Objects on page 5-8.</p> |
|---|---|



- 5 In the "BLEND Correction Recipe Dialog Box" dialog box, you can look at the result of the matching. The color differences between "Standard" and "Batch" are displayed. Click **Show** for displaying a print preview. Click **Print** to print the recipe data.

Refer to [BLEND Recipe Calculation Result Table on page 7-179](#).

The „BLEND Correction Recipe“ can be configured. Refer to [View Configuration Dialog Box \(Laboratory Correction Table\) on page 7-100](#).

- 6 Click **Save**.

The corrected recipes (laboratory and production) are saved.

BLEND Fast Correction

The “Fast Correction” function is used for corrections without an existing recipe. It is based on a theoretical calculated recipe of the standard or a recipe typed in manually. This task is mainly used for production correction.

	Action	Result/Notes
1	On the context-sensitive menu, select Fast Correction , or press F8 .	The “Fast Correction Recipe Input” dialog box appears. Refer to BLEND Fast Correction Dialog Box for a detailed description of the parameters.
2	In the “Process Data for Fiber Matching” tab, select the Fiber Set , accept or modify the Part for the selected fiber set and select the Standard .	
3	In the “Colorant Set” tab, select the fibers used for the recipe and specify the concentration.	
4	Select the fibers and type the concentrations valid for the current batch.	
5	Measure or select the batch to be corrected.	
6	Click Correction . Continue with chapter Recipe Correction on page 5-148 .	The “Recipe Correction” tab appears.

Displaying and Printing Existing BLEND Recipes

Action	Result/Notes
1 Select the recipe in the "Recipe List" window.	
2 On the context-sensitive menu, select Lab Dyelot , or, press Enter .	The "Show Full Recipe Dialog Box" dialog box appears.

Recipe Output

New output features

- ❶ Colorimetric data is printed (color difference and metamerism for standard, batch and standard, theoretical batch of correction).
- ❷ Information if the recipe was manually modified.
- ❸ The last measured batch.

07.02.2005 15:03 DCI

datacolor 

Blend Recipe

Name Stone-Wool
Recipe_ID 6543
Standard Stone-Wool **Weight** 10.00 g

Fiber price	1.37
--------------------	-------------

❶	<i>Tolerance_Name</i>	CieLab Default	<i>Factor</i>	1.00
	<i>DyeSet</i>	Wool Felt	❷ <i>Modified</i>	No
		<i>Measured</i>	<i>Predicted</i>	
	<i>dE(D65)</i>	1.49	2.68	
	<i>Metamerism (A)</i>	0.31	0.49	
	<i>Metamerism (F11)</i>	0.19	0.33	
	<i>Dyeset_Name</i>	Wool Felt	<i>Part</i>	100.00
❸	<i>LastMeasuredBatch</i>	Stone-Wool (1)/1		

Wool-white-felt	Wool-white-felt	55.19 %	5.52 g
Black-wool-felt	Black-wool-felt	28.64 %	2.86 g
Yellow-wool-felt	Yellow-wool-felt	4.00 %	0.40 g
Orange-wool-felt	Orange-wool-felt	12.17 %	1.22 g

Recipe History

If a Batch exists, Datacolor MATCH^{Textile} saves all corrections and modifications of a recipe. Modifications done with the „Edit“ option are also saved. In addition to the recipes, a dLab graph is displayed.

Displaying the history:

- Select the function **History** on the **Recipe** or the context-sensitive menu.

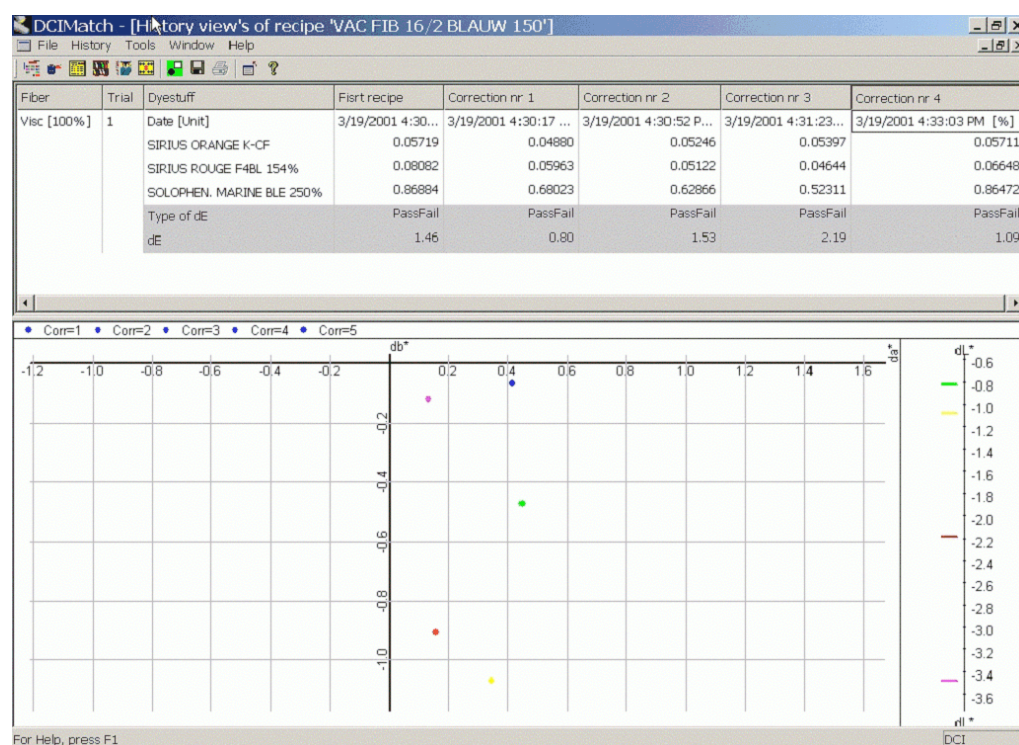
Printing the history:

- Select **Print** on the **History** menu.



Note

The graph is not to be printed.



6

Maintenance and Error Handling

Maintenance of the Spectrophotometer

Refer to the manual of your spectrophotometer.

Maintenance of the Database



Note

The delete, move, copy and rename functions are only available to users having the corresponding access rights.

Deleting Data

You can delete data objects in the corresponding windows and boxes.



Note

An object cannot be deleted, if it is linked to other objects. If the system cannot delete an object, all valid links are listed in the "Delete Check" info box.

Backup

Refer to [Backing Up Using Sybase Utilities on page 4-17](#).

Error Handling

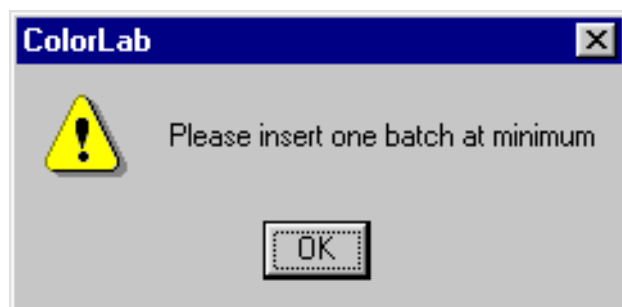
- 1 Note the error message and what you were doing before the error occurred.
- 2 Try to execute the advice of the error message. **Example below:** Specify a minimum of one batch before clicking **Save** again.
- 3 Log out of Datacolor MATCH^{Textile} and restart Windows.
- 4 Restart Datacolor MATCH^{Textile}.

If the error occurs again, contact your Datacolor representative for further advice.

Error Messages

If an error message appears while you are using your system, you should follow the advice above.

Example of an error message:

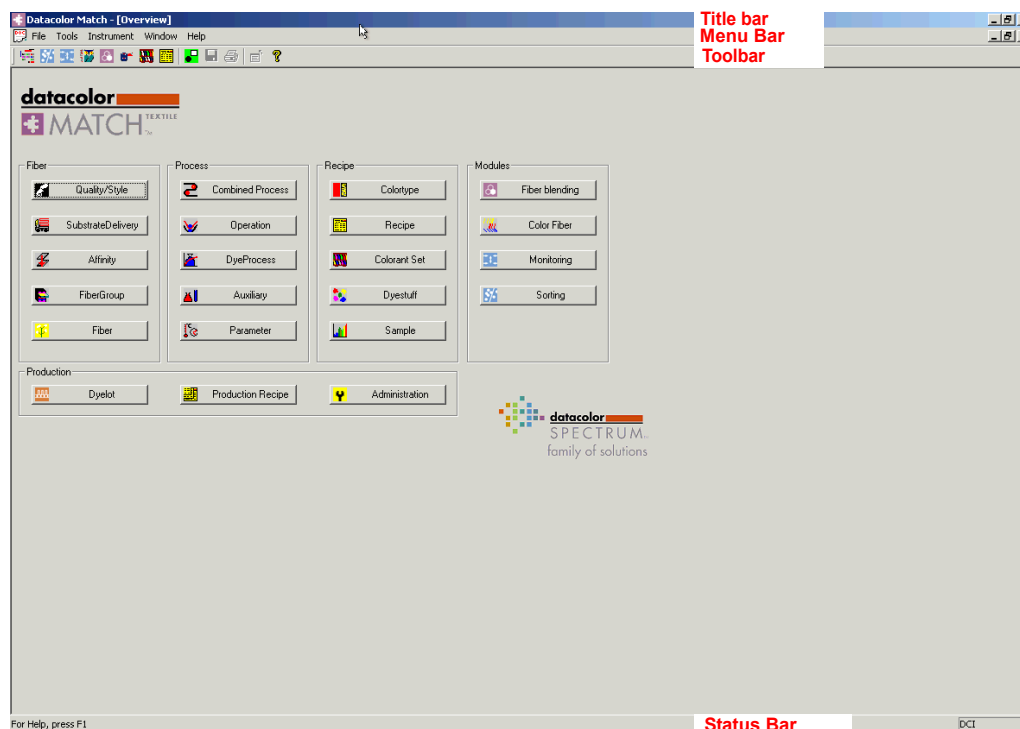


7

Windows and Dialog Boxes

Explorer

Overview Window



Title bar

The title bar contains the title of the program, the title of the current window and, if a list window is opened, the number of data records.

Menu bar

Refer to [General Menu Functions on page 7-4](#) for the general functions or to the related window descriptions for window specific functions.

Toolbar

Refer to [Toolbar Functions on page 7-7](#).

Status bar

Display of messages.

Buttons in the overview window**Fiber:**

Quality/Style	Opens the “Quality/Style List” window. Refer to Quality/Style List Window on page 7-87 .
Substrate Delivery	Opens the “Substrate Delivery List” window. Refer to Substrate Delivery List Window on page 7-87 .
Affinity	Opens the “Affinity List” window. Refer to Affinity List Window on page 7-88 .
Fiber Group	Opens the “Fiber Group List” window. Refer to Fiber Group List Window on page 7-87 .
Fiber	Opens the “Fiber List” window. Refer to Fiber List Window on page 7-86 .

Process:

Combined Process	Opens the “Combined Process List” window. Refer to Combined Process List Window on page 7-93 .
Operation	Opens the “Operation List” window. Refer to Operation List Window on page 7-93 .
Dye Process	Opens the “Dye Process List” window. Refer to Dye Process List Window on page 7-88 .
Auxiliary	Opens the “Auxiliary List” window. Refer to Auxiliary List Window on page 7-89 , and Specifying, Modifying or Deleting a Product on page 5-34 .
Parameter	Opens the “Parameter List” window. Refer to Parameter List Window on page 7-86 , Parameter Definition Dialog Box on page 7-57 , and Specifying, Modifying or Deleting a Product on page 5-34 .

Recipe:

Color Type	Opens the “Color Type List” window. Refer to Color Type List Window on page 7-85 .
Recipe	Opens the “Recipe” application (used for matching, correction and printing recipes) and displays the “Recipe List” window. Refer to Matching on page 5-74 , Correction on page 5-91 , Displaying and Printing Existing Recipes on page 5-104 , and Recipe List Window on page 7-91 .
Colorant Set	Opens the “Colorant Set” application (used for colorant set preparation) and displays the “Colorant Set List” window. Refer to Specifying Colorant Sets on page 5-47 , and Colorant Set List Window on page 7-76 .
Dyestuff	Opens the “Dyestuff List” window. Refer to Dyestuff List Window on page 7-89 .
Sample	Opens the “Sample List” window. Refer to Sample List Window on page 7-85 .

Modules: (Options)

Fiber Blending	Refer to Datacolor BLEND (Option) on page 5-134 .
Color Fiber	Refer to Datacolor BLEND (Option) on page 5-134 .
Monitoring	Refer to Datacolor MONITOR (Option) on page 5-106 .
Sorting	Refer to Datacolor SORT (Option) on page 5-118 .

Production: (Option)

Buttons used for Datacolor TICKET. Refer to Datacolor TICKET (Option) on page 5-115 .	
Dye Lot	Opens the „Dye Lot List“ window. Refer to Datacolor TICKET - Dye Lot on page 5-117 .
Production Recipe	Opens the „Production Recipes List“ window. Refer to Datacolor TICKET - Production Recipe on page 5-115 .
Administration	Opens the „Datacolor PROCESS Administration“ dialog box. Refer to Datacolor TICKET - Administration on page 5-117 .

Status bar

Display of messages.

General Menu Functions

File

Datacolor Sorting	Refer to Datacolor SORT (Option) on page 5-118 .
Batch Series	Opens the „Batch Series List“ window. Refer to Datacolor MONITOR (Option) on page 5-106 .
SmartMatch	Opens the “SmartMatch List” window. Refer to SmartMatch Result List Window on page 7-94 , Approving on page 5-84 , and Manual Input of SmartMatch Points on page 5-90 .
Fiber Blending	Opens the „Recipe List“ window. Refer to Recipe List Window on page 7-91 and Datacolor BLEND (Option) on page 5-134 .
Basic Data	Opens the list window last opened. The context-sensitive menu is used to open the other basic data windows. Refer to Specifying Basic Data on page 5-25 .
General Calibration	Opens the “Colorant Set” application (used for colorant set preparation) and displays the “Colorant Set List” window. Refer to Specifying Colorant Sets on page 5-47 , Colorant Set List Window on page 7-76 , and displays the basic data list of the last session.
Recipe	Opens the “Recipe” application (used for matching, correction and printing recipes) and displays the “Recipe List” window. Refer to Recipe Calculation (Matching) on page 5-67 , Correction on page 5-91 , Displaying and Printing Existing Recipes on page 5-104 , and Recipe List Window on page 7-91 .
Overview	Opens the “Overview” window (main screen).

Save	Saves the current data.
Close	Closes the currently active window. If data is altered, the program requests the data be saved.
Close All	Closes all opened windows except the "Overview" window.
Print	Prints data of the currently opened "Colorant Set List" or "Recipe" window using the default Windows printer.
Print Setup	Is used for setting up the default Windows printer.
Send Mail	Is used to send e-mails. Refer to Sending E-mails on page 4-25 .
Scan Mail	Is used to receive and select e-mails.
Exit	Closes the program.
Tools	
Toolbar	Switches the toolbar on (check mark) and off.
Status Bar	Switches the status bar on (check mark) and off.
User Manager	Change Password: Refer to Changing the Password on page 4-2 . User Administration: Refer to Specifying, Modifying and Deleting User's Data on page 4-2 .
User's Browser Definition	Opens the "Browse Columns for Explorer" dialog box. Refer to Browser Customizing on page 4-6 .
Define Units	Opens the "Unit" dialog box. Refer to Defining Units on page 4-11 .
Automatic SmartMatch Housekeeping	Refer to Automatic SmartMatch Maintenance on page 5-86 .
Options	Opens the "Options" dialog box. Refer to Options on page 4-11 .
Import	Opens the "Import" dialog box for sample import. Refer to Import and Export on page 4-12 .
Export	Opens the "Export" dialog box for sample export. Refer to Exporting Data on page 4-12 .
Import Print Form	Imports print forms without using the Page View Designer. Refer to Importing Print Forms on page 4-29 .
Export Print Form	Exports print forms without using the Page View Designer. Refer to Exporting Print Forms on page 4-29 .
ASCII forms	New: Opens the „ASCII Output Definition“ dialog box. Change: Opens the „ASCII Output Definition“ dialog box. Delete: Opens the „Delete ASCII Form“ dialog box. Refer to ASCII Output (Option) on page 4-20 .
Backup	Opens the "Backup" dialog box. Refer to Backing Up Using Sybase Utilities on page 4-17 .
Calibrate Monitor	Function for calibrating monitors using Datacolor SPYDER2. Refer to Calibrating the Monitors Using Datacolor SPYDER2 on page 4-24 .

Instrument

Calibrate Instrument	Opens the „Calibration Conditions“ dialog box. Refer to Calibrate Tab on page 7-18 and Calibration and Measurement on page 5-10 .
Instrument Setup	Opens the „Instrument Setup“ tab of the „Measurement Main Window“. Refer to Instruments Setup Tab on page 7-19 and Calibration and Measurement on page 5-10 .
Measurement Setup	Opens the „General Options“ tab of the „Measurement Main Window“. Refer to Instruments Setup Tab on page 7-19 and Calibration and Measurement on page 5-10 .
Diagnostic Instrument	Only if the green tile test is installed. Opens the „Prepare for Diagnostic“ dialog box. Refer to UV Calibration Tab on page 7-21 and Green Tile Test on page 5-18 .
UV Calibration	Only for instruments with whiteness option. Opens the „Measurement Main Window“. Refer to UV Calibration Tab on page 7-21 and UV Calibration on page 5-11 .
Ganz/Griesser Calibration	Only for instruments with whiteness option. Opens the „Measurement Main Window“. Refer to UV Calibration Tab on page 7-21 and UV Calibration on page 5-11 .
Ganz/Griesser Parameters	Only for instruments with whiteness option. Opens the „Measurement Main Window“. Refer to UV Calibration on page 5-11 .

Window

New Window	Creates a copy of the currently selected window.
Cascade	Arranges the overview and the opened windows as a cascade.
Tile	Arranges the overview in the upper and the opened window in the lower part of the explorer.

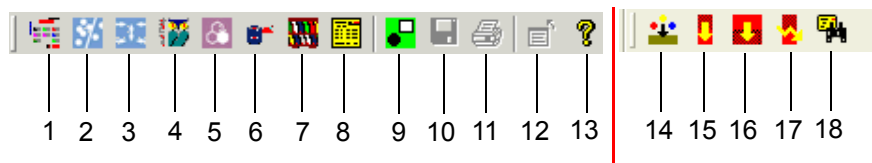
Help

Help Topics	Opens the Acrobat Reader with the „Datacolor MATCH ^{Textile} Dye Lot User's Guide“.
About ColorLab	Opens the “About ColorLab” information box with release, copyright and user information.

**Note**

Refer to the related window description for window specific menu functions.

Toolbar Functions



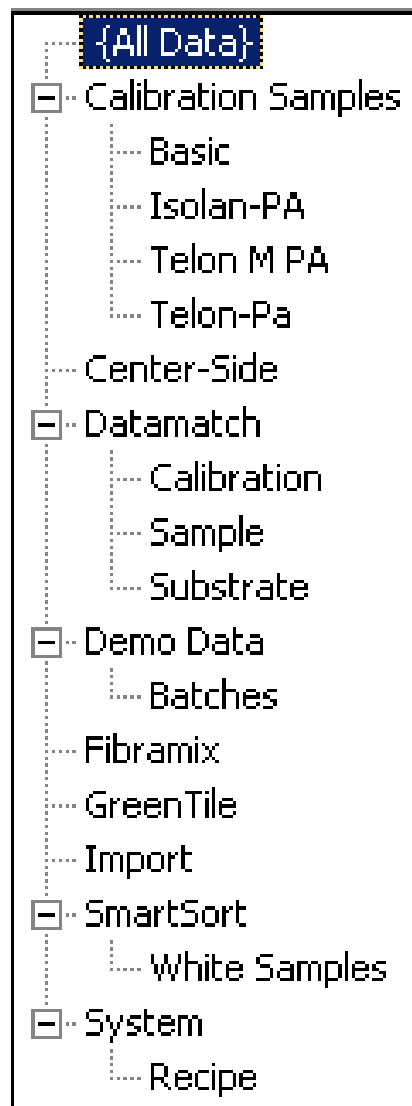
General toolbar

- | | | |
|----|----------------------------|---|
| 1 | Overview | Opens the "Overview" window. |
| 2 | Datacolor SORT | Refer to Datacolor SORT (Option) on page 5-118 . |
| 3 | Datacolor MONITOR | Opens the „Batch Series List“ window. Refer to Datacolor MONITOR (Option) on page 5-106 . |
| 4 | SmartMatch | Opens the "SmartMatch List" window. Refer to SmartMatch Result List Window on page 7-94 , Approving on page 5-84 , and Manual Input of SmartMatch Points on page 5-90 . |
| 5 | Datacolor BLEND | |
| 6 | Basic Data | Opens the basic data application and displays the basic data list of the last session. Refer to Browser Customizing on page 4-6 and Browse and Selecting on page 5-2 . |
| 7 | Calibration (colorant set) | Opens the "Colorant Set" application (used for colorant set preparation) and displays the "Colorant Set List" window. Refer to Specifying Colorant Sets on page 5-47 , Colorant Set List Window on page 7-76 |
| 8 | Recipe | Opens the "Recipe" application (used for matching, correction and printing recipes) and displays the "Recipe List" window. Refer to Recipe Calculation (Matching) on page 5-67 , Correction on page 5-91 , Displaying and Printing Existing Recipes on page 5-104 , Recipe List Window on page 7-91 . |
| 9 | Instrument Calibration | Opens the "Calibration Conditions" dialog box (corresponds to the "Calibration" tab of the "Measurement" dialog box). Refer to Calibrate Tab on page 7-18 , and Calibration and Measurement on page 5-10 . |
| 10 | Save | <i>Only active in recipe application.</i> Saves recipes and laboratory corrections. |
| 11 | Print | Prints data of the currently opened "Colorant Set List" or "Recipe" window using the default Windows printer. |
| 12 | Close | Closes the currently displayed window and asks for saving if some data has been altered. |
| 13 | Help | Opens the Datacolor MATCH ^{Textile} User's Guide. |

Recipe toolbar

- | | |
|--------------------------|--|
| 14 Match | Opens the "Match" dialog box.
Refer to Match Dialog Box on page 7-116 . |
| 15 Laboratory Correction | Opens the "Correct or Approve Your Recipe" dialog box.
Refer to Laboratory Correction on page 5-92 . |
| 16 Production Correction | Opens the "Production Correction" dialog box. Refer to Production Correction on page 5-96 . |
| 17 Fast Correction | Opens the "Fast Correction" dialog box. Refer to Fast Correction on page 5-99 . |
| 18 Search and Correct | Opens the "Search and Correct" dialog box used for searching recipes. Refer to Search and Correct Dialog Box on page 7-109 . |

Folder Structure



All objects are displayed in a structured list at the left of the “Explorer” window.

Opening and closing structure levels

+ A + sign indicates that there are hidden subordinate folders.

Click the + sign to open the next structure level.

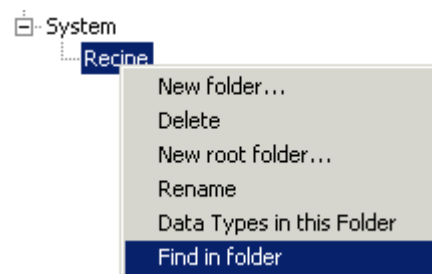
- Click the - sign to close all subordinate structure levels.

Selection of object types

1. Select the requested object type using the left mouse button.

If “All Data” is selected, all object types can be displayed.

Context-sensitive menu



New Folder	Adds a new subfolder to the selected folder. <i>Type a meaningful name.</i>
Delete	Deletes the selected folder (only if the folder is empty).
New Root Folder	Adds a new root folder. <i>Type a meaningful name.</i>
Rename	Is used to rename the selected folder.
Data Type in this Folder	Opens the „Data in Folder“ dialog box used for searching data types and the corresponding data in the selected folder. Refer to Data in Folder Dialog Box on page 7-13
Find in Folder	Opens the „Find <data type> in Folder“ dialog box used for searching data with a determined name or part of the name. The <data type> of the opened list window is used. Refer to Find in Folder Dialog Box on page 7-14

Functions of the “Basic Data” Menu

Product	Opens the “Product Property Sheet”. Refer to Product Property Sheet on page 7-31 and Specifying, Modifying or Deleting a Product on page 5-34 .
Quality/Style	Opens the “Quality/Style Property Sheet”. Refer to Quality/Style Property Sheet on page 7-22 and Specifying, Modifying or Deleting a Quality/Style on page 5-26 .
Dye Process	Opens the “Dye Process Property Sheet”. Refer to Dye Process Property Sheet on page 7-29 , and Specifying, Modifying or Deleting a Dye Process on page 5-37 .
Customer	Opens the “Customer Property Sheet”. Refer to Customer Property Sheet on page 7-43 and Specifying, Modifying or Deleting Customers on page 5-39 .
Color Type	Opens the “Color Type Property Sheet”. Refer to Color Type Property Sheet on page 7-45 and Specifying, Modifying or Deleting a Color Type on page 5-43 .
Parameter Definition	Opens the “Parameter Definition” dialog box. Refer to Parameter Definition Dialog Box on page 7-57 and Specifying, Modifying or Deleting Parameters on page 5-40 .
Tolerance	Opens the “Tolerance Block Program” dialog box. Refer to Tolerance Block Program Dialog Box on page 7-46 and Specifying, Modifying or Deleting Tolerances on page 5-44 .
Combined Process	Opens the “Combined Processes” window. Refer to Combined Processes Browse Window on page 7-58 and Specifying Combined Processes on page 5-61 .
Operation	Opens the “Operations” browse window. Refer to Operations Browse Window on page 7-65 , and Specifying, Modifying, Deleting An Operation on page 5-64 .
Sample	Opens the “Color Sample Calculator” dialog box. Refer to Sample Input Dialog Box on page 7-72 .
Browse Data	Opens a submenu with the following functions: Refer to Browser Customizing on page 4-6 and Browse and Selecting on page 5-2 for information about the use of the list windows.
Illuminant List	Opens the “Illuminant List” window. Refer to Illuminant List Window on page 7-85 .
Sample List	Opens the “Sample List” window. Refer to Sample List Window on page 7-85 , and Manual Input and Modification of Samples on page 5-24 .
Color Type List	Opens the “Color Type List” window. Refer to Color Type List Window on page 7-85 , and Specifying, Modifying or Deleting a Color Type on page 5-43 .
Tolerance List	Opens the “Tolerance List” window. Refer to Tolerance List Window on page 7-86 , and Specifying, Modifying or Deleting Tolerances on page 5-44 .

Parameter List	Opens the “Parameter List” window. Refer to Parameter List Window on page 7-86 , and Specifying, Modifying or Deleting Parameters on page 5-40 .
Fiber List	Opens the “Fiber List” window. Refer to Fiber List Window on page 7-86 , and Specifying, Modifying or Deleting a Quality/Style on page 5-26 .
Fiber Group List	Opens the “Fiber Group List” window. Refer to Fiber Group List Window on page 7-87 , Fiber Group Tab on page 7-25 , and Specifying, Modifying or Deleting a Quality/Style on page 5-26 .
Substrate Delivery List	Opens the “Substrate Delivery List” window. Refer to Substrate Delivery List Window on page 7-87 , Substrate Delivery Dialog Box on page 7-27 , and Specifying, Modifying or Deleting a Quality/Style on page 5-26 .
Quality/Style List	Opens the “Quality/Style List” window. Refer to Quality/Style List Window on page 7-87 , Quality/Style Property Sheet on page 7-22 , and Specifying, Modifying or Deleting a Quality/Style on page 5-26 .
Affinity List	Opens the “Affinity List” window. Refer to Affinity List Window on page 7-88 , Quality/Style Property Sheet on page 7-22 , and Specifying, Modifying or Deleting a Quality/Style on page 5-26 .
Dye Process List	Opens the “Dye Process List” window. Refer to Dye Process List Window on page 7-88 , and Specifying, Modifying or Deleting a Dye Process on page 5-37 .
Dyestuff Class List	Opens the “Dyestuff Class List” window. Refer to Dyestuff Class List Window on page 7-88 , and Specifying, Modifying or Deleting a Dye Class on page 5-38 .
Dyestuff List	Opens the “Dyestuff List” window. Refer to Dyestuff List Window on page 7-89 , and Specifying, Modifying or Deleting a Product on page 5-34 .
Auxiliary List	Opens the “Auxiliary List” window. Refer to Auxiliary List Window on page 7-89 , and Specifying, Modifying or Deleting a Product on page 5-34 .
Color Fiber List	Opens the „Product List“ Window. Refer to Product List Window on page 7-90 , and Specifying, Modifying or Deleting a Product on page 5-34 .
Supplier List	Opens the “Supplier List” window. Refer to Supplier List Window on page 7-90 , and Specifying, Modifying or Deleting a Product on page 5-34 .
Customer List	Opens the “Customer List” window. Refer to Customer List Window on page 7-91 , and Specifying, Modifying or Deleting Customers on page 5-39 .
Combined Process List	Opens the “Combined Process List” window. Refer to Combined Process List Window on page 7-93 , and Specifying Combined Processes on page 5-61 .

Operation List Opens the "Operation List" window. Refer to [Operation List Window on page 7-93](#), and [Specifying, Modifying, Deleting An Operation](#).

General functions:

Display Displays a list with the selected objects.

Print Prints list with the selected objects.

ASCII Output Creates a text file if a corresponding form exists. Refer to [ASCII Output \(Option\) on page 4-20](#).

User's Browser Definition Opens the "Browse Columns for Explorer" dialog box. Refer to [Browser Customizing on page 4-6](#).



Note

The delete and rename functions are only available to users with the corresponding access rights.

Rename Is used to rename the selected object.

Delete Deletes the selected object after confirmation.

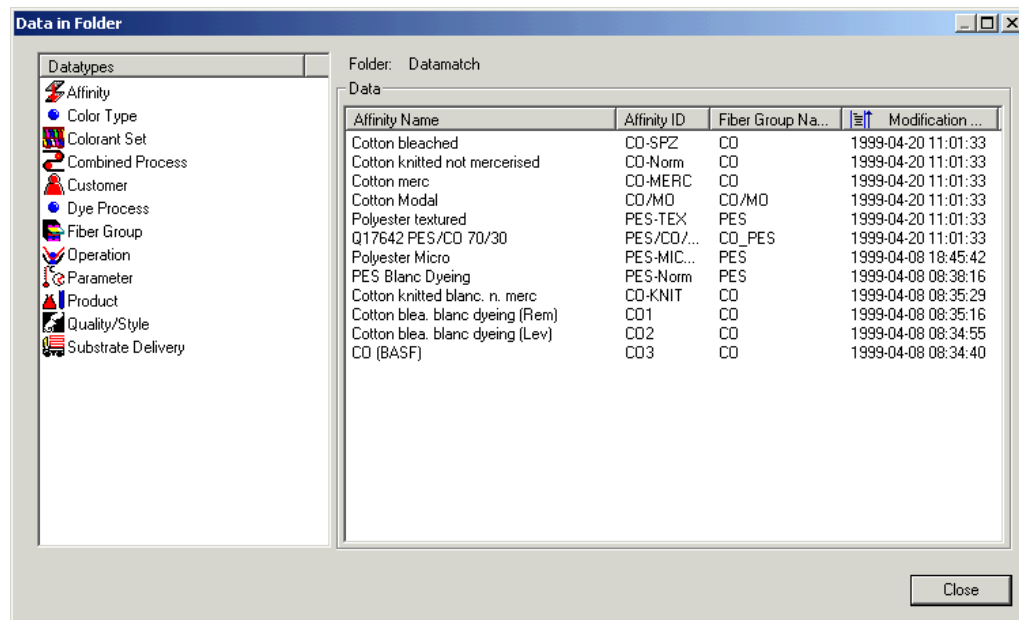
Move to Moves a selected object to another folder.

Filter Refer to [Browse Filters on page 4-8](#).

Reset Filter Resets the selected filter.

Data in Folder Dialog Box

Used to search for data types and the corresponding data records stored in the folder selected in the folder structure.



Data type box:

Shows all data types that the folder selected in the folder structure contains.

Data box

Shows all data records of selected data type.

Context-sensitive menu of the Data box:

User's Browser Definition Opens the "Browse Columns for Explorer" dialog box. Refer to [Browser Customizing on page 4-6](#).



Note

The delete and rename functions are only available to users with the corresponding access rights.

Rename

Is used to rename the selected object.

Delete

Deletes the selected object after confirmation.

Move to

Moves a selected object to another folder.

Filter

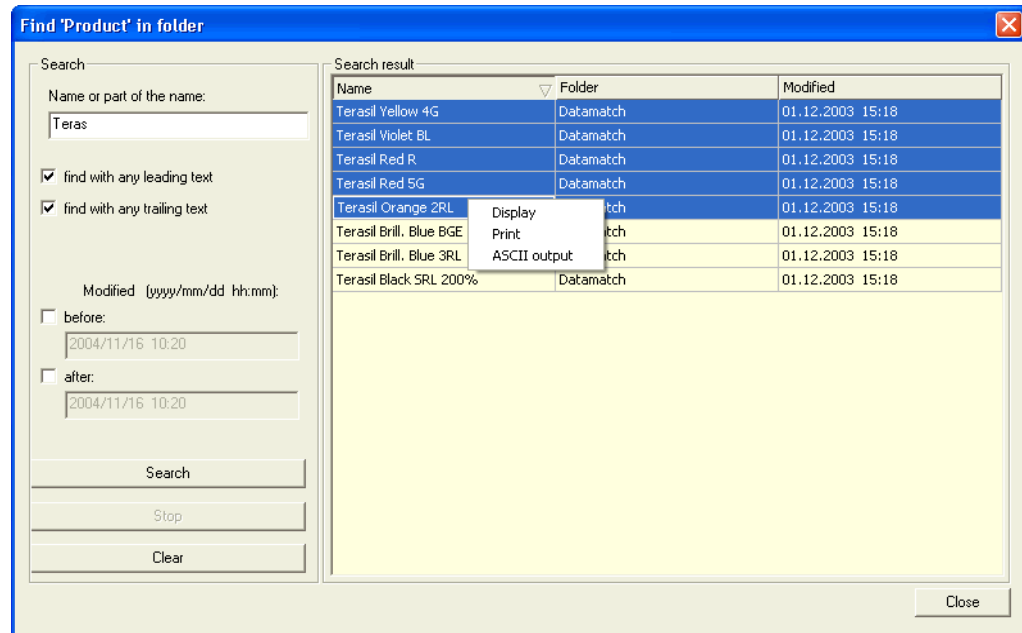
Refer to [Browse Filters on page 4-8](#).

Reset Filter

Resets the selected filter.

Find in Folder Dialog Box

Used for searching data records with a determined name or part of the name. The data type of the opened list window is used. Refer to [Searching objects of a determined data type on page 5-3](#).



Search criteria:

You can type a complete name or a part of it. If you are typing a part it is necessary to check one or both of the boxes for leading or trailing text.



Note

Wildcards cannot be used.

Additionally, you can select the time range of the last modification.

Buttons:

- | | |
|--------|---|
| Search | Starts the search. |
| Stop | Stops the current search. |
| Clear | removes all data from the input and list boxes. |

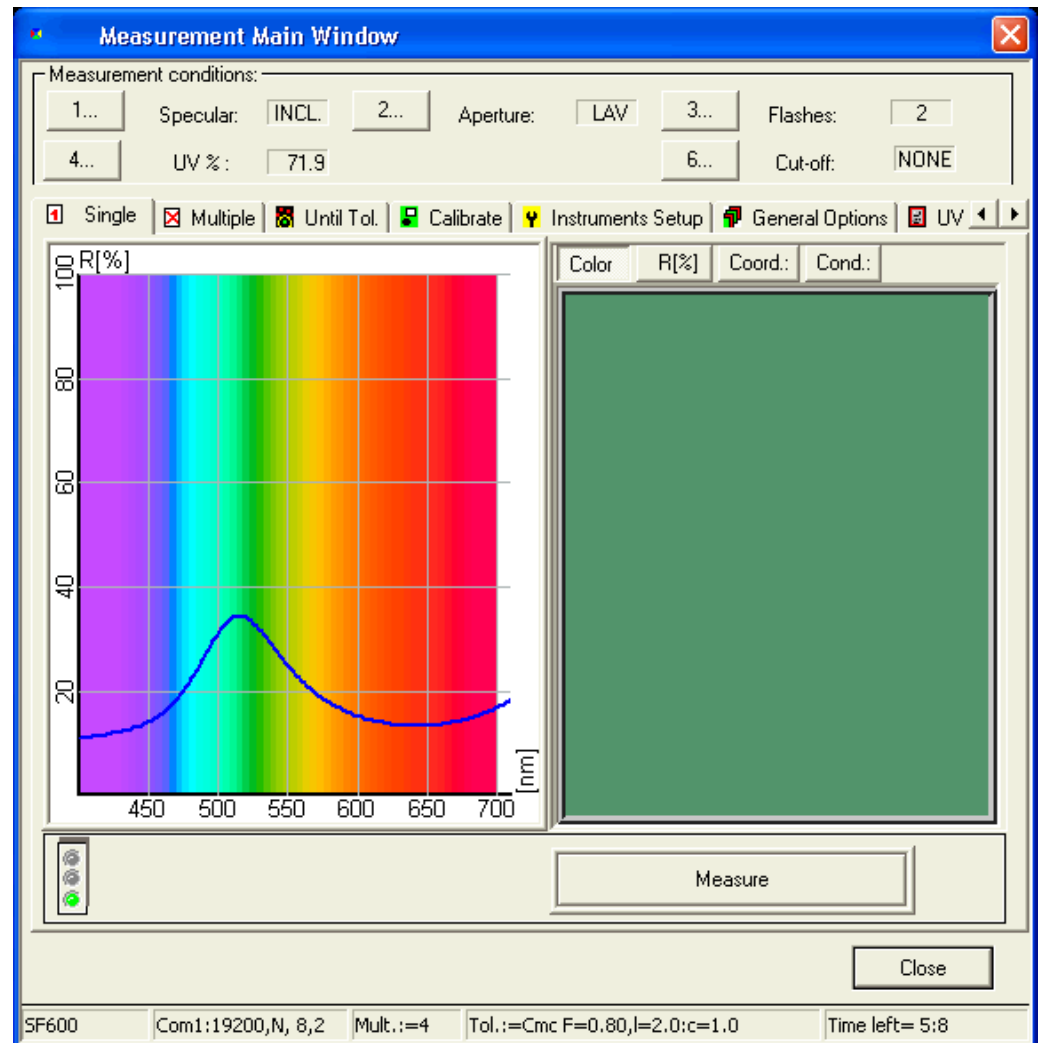
Context-sensitive menu in the „Search Result“ table:

- | | |
|--------------|--|
| Display | Displays a print preview of the selected object. |
| Print | Prints data of the selected object. |
| ASCII Output | Saves data of the selected object into a ASCII output. |

Measurement Main Window

The “Measurement” dialog box is used for selection and setting up the instrument, calibration, and measurement. Refer to [Calibration and Measurement on page 5-10](#).

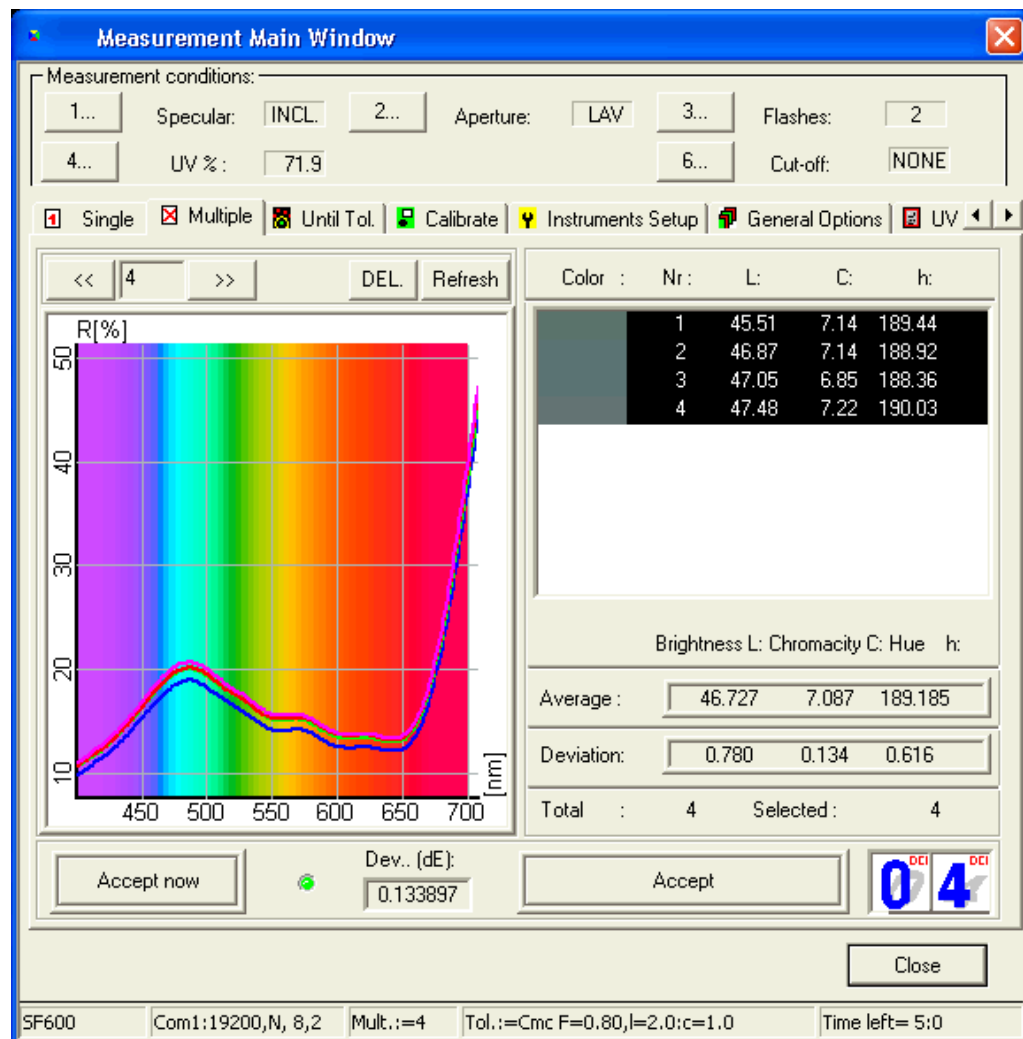
Single Tab (Example)



Refer to the manual of your spectrophotometer for instrument specific information.

„Color“ tab	Shows the color of the measured sample.
„Reflectance“ tab	Shows the reflectance values of the measured sample.
„Coordinates“ tab	Shows the color coordinates (e.g., yxz Lab) of the measured sample.
„Conditions“ tab	Shows the measurement conditions.

Multiple Tab



Parameters

Used for a measurement series.

The graph and the fields show the result of the measurement. **Average and deviation are calculated according to the selected measurements.**

In the table, the measurements can be selected or canceled using the mouse.

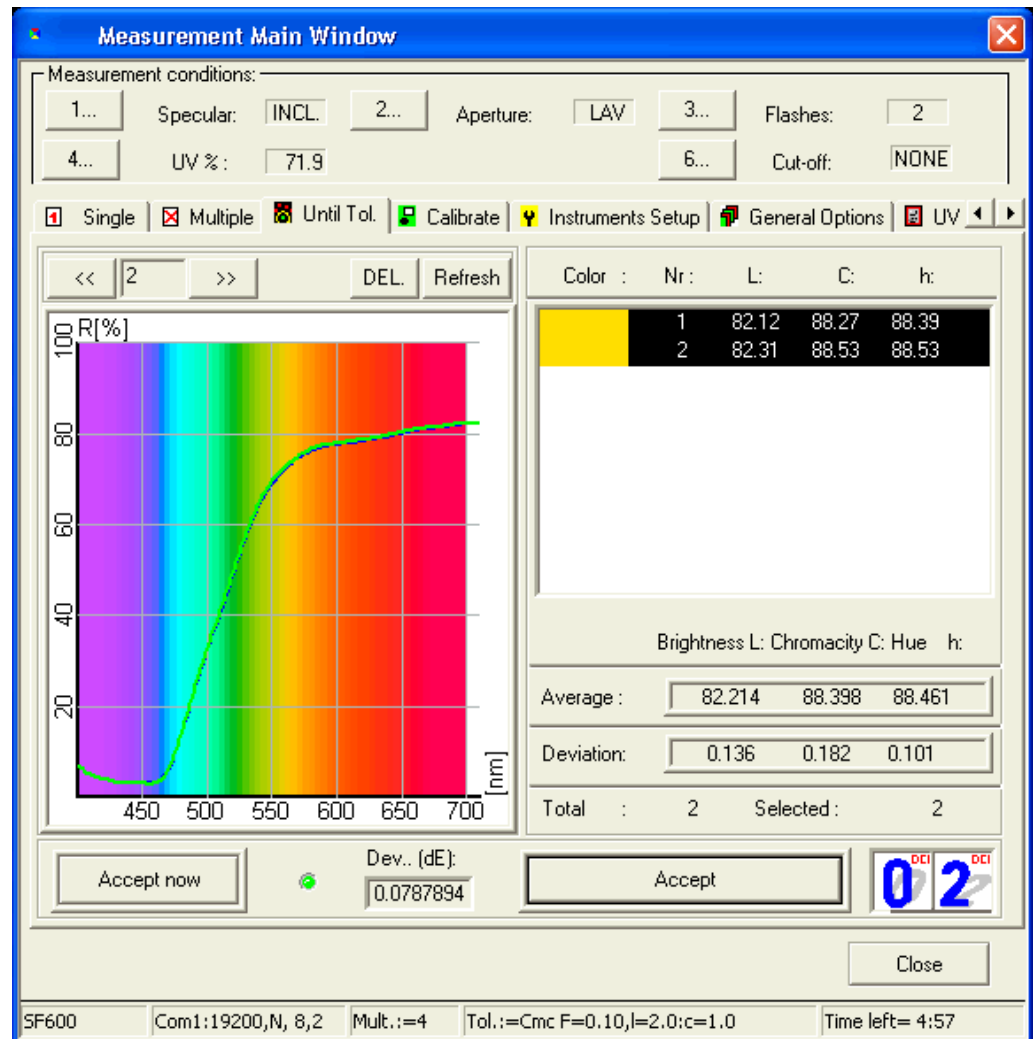
Measurements can also be canceled using the measurement selection and the **DEL** buttons at the top of the graph.

Accept now Selects all measurements.

Measure Executes the measurement.

Close Closes the "Measurement" dialog box and saves the currently calculated values.

Until Tolerance Tab



Parameters

Used for multiple measurement until the color differences do no longer exceed the tolerance values.

The graph and the fields show the result of the measurement. **Averages and deviation are calculated according to the selected measurements.**

Measurements can be selected or canceled in the table using the mouse.

Measurements can also be canceled using the measurement selection and the **DEL** buttons at the top of the graph.

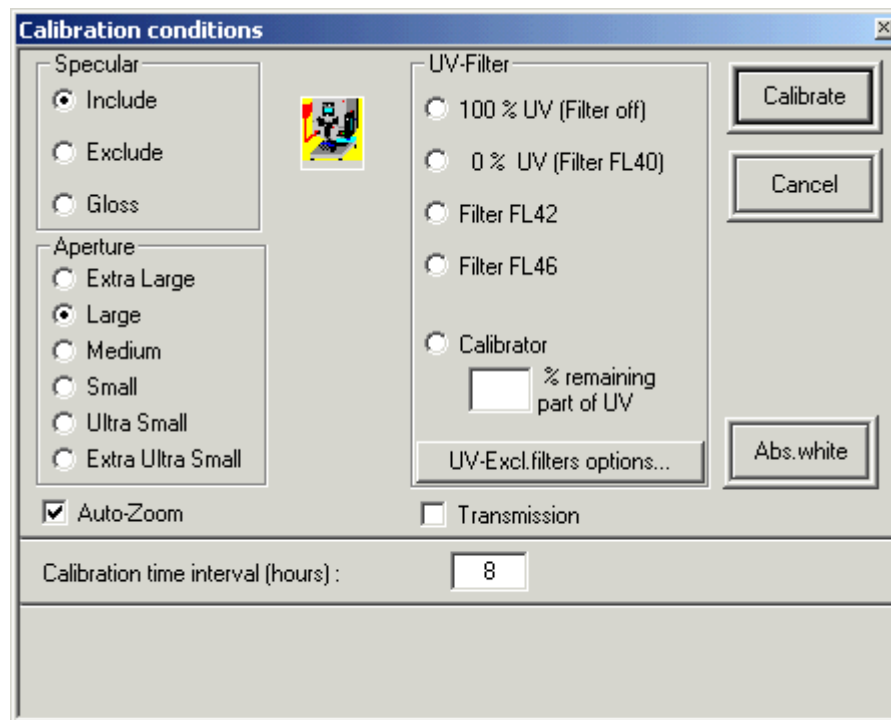
Accept now Selects all measurements.

Measure Executes the measurement.

Close Closes the "Measurement" dialog box and saves the currently calculated values.

Calibrate Tab

Opens the "Calibration Conditions" dialog box.



Refer to the manual of your spectrophotometer.

Instruments Setup Tab

Measurement Main Window

Measurement conditions:

1... Specular: INCL. 2... Aperture: LAV 3... Flashes: 2

4... UV %: 71.9 6... Cut-off: NONE

☒ Single ☒ Multiple ☒ Until Tol. ☒ Calibrate ☒ Instruments Setup ☒ General Options ☒ UV

Instrument type: SF600 : DCI Spectraflash 600

Driver requested: Unispef32.dll

Communication parameters: Com1:19200,N, 8,2

Communication port: Com1

Bits per Seconds: 19200 Advanced...

Data bits: 8

Parity bit: N

Stop bit: 2

Serial Number: 132

Save Setup

Close

SF600 Com1:19200,N, 8,2 Mult.:4 Tol.:Cmc F=0.10,l=2.0:c=1.0 Time left= 4:54

Parameters

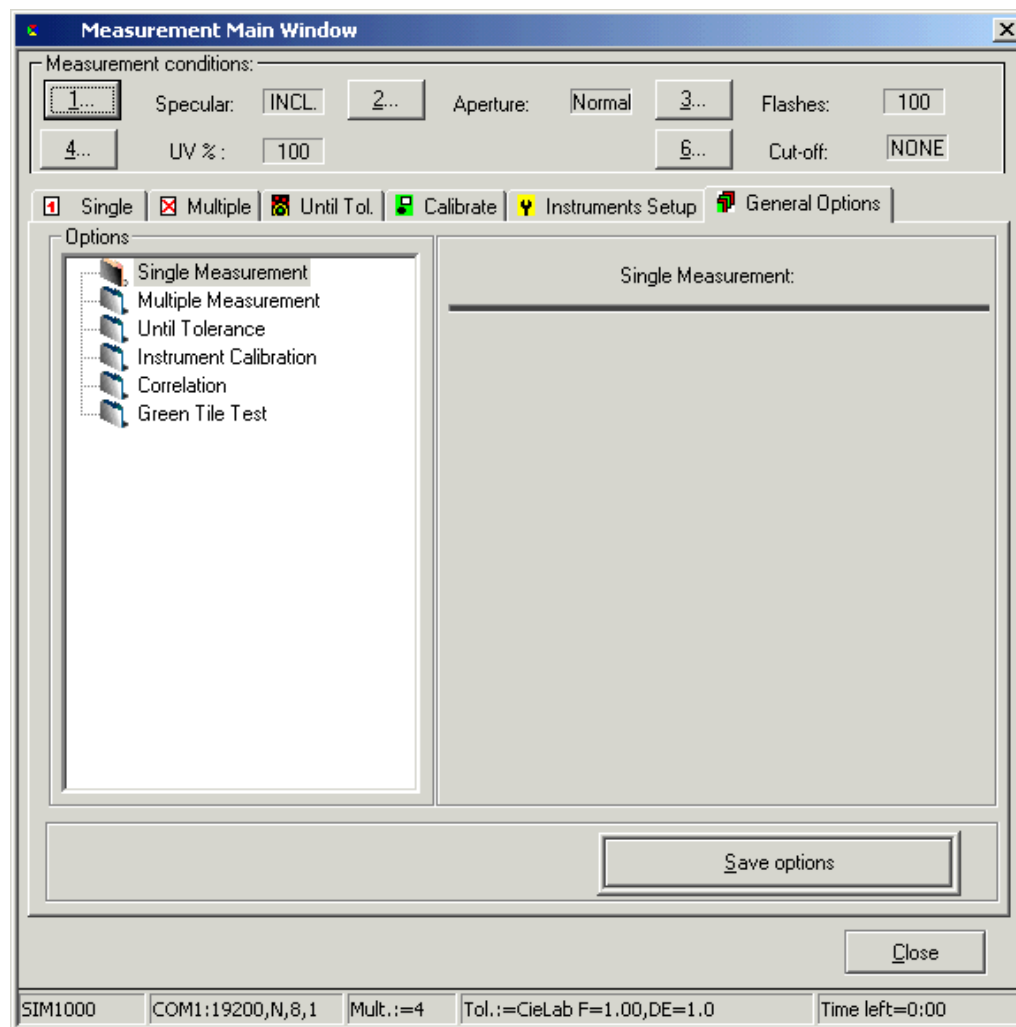


Caution

An alteration of these parameters can interrupt the communication between the PC and the spectrophotometer.

Refer to the manual of your spectrophotometer.

General Options Tab



Parameters

Definition of general parameters for single measurement, multiple measurement, until tolerance, calibration, and green tile test (Refer to [Green Tile Test on page 5-18](#)).

Until tolerance Select the formula and specify the tolerance to be accepted.

Correlation Refer to [Configuring and Enabling the Maestro Correlation Feature on page 5-16](#).

UV Calibration Tab

Calibration Methods



Note

There are several methods that can be used to calibrate the adjustable UV filter position. Please refer to the whiteness standard you are using to determine the method to be used.

Ganz/Griesser: This procedure uses the Ganz/Griesser calibration method. The light source is filtered to simulate the D65 Illuminant and the Ganz Griesser parameters are used to calculate the filter position. In addition, the target whiteness value is based on 10% standard observer data.

CIE using D65/10: The light source is filtered to simulate the D65 illuminant. This is the procedure used to perform a CIE Whiteness evaluation.

ISO Brightness (C): The light source is filtered to simulate Illuminant C. This is the procedure used to perform an ISO Brightness evaluation.

Example Using the Ganz/Griesser Method

The screenshot shows the 'Measurement Main Window' with the 'UV Calibration' tab selected. The window contains several sections for configuring measurement conditions and calibration parameters.

Measurement conditions:

- 1... Specular: EXCL. 2... Aperture: LAV 3... Flashes: 2
- 4... UV %: 68.0 6... Cut-off: NONE

Navigation buttons: Multiple, Until Tol., Calibrate, Instruments Setup, General Options, UV Calibration (selected).

Periodical Illuminant checker:

Nominal Whiteness:		UV Filter Position [%]:	
Whiteness of test- tile:	150	Position to set [%]:	70
Whiteness found:		using position [%]:	
Whiteness Difference:			

Color display: A large area showing a white square on the left and a black square on the right. Above it are tabs for Color, Coord., and Cond.

UV Calibration Methods:

- Whiteness parameters...
- Re-Calibrate parameters...
- D65/10 (Ganz-Griesser)
- D65/10 (CIE Whiteness)
- C (ISO Brightness)

Buttons: Accept, Auto-Calibrator, Close.

Status bar: SF600 COM1:19200,N, 8,2 Mult.:4 Tol.:CieLab F=1.00,DE=1.0 Time left=4:40

Refer to [UV Calibration on page 5-11](#).

Quality/Style Property Sheet

Buttons

Save	Saves the displayed quality definition.
Delete	Deletes the displayed quality definition after confirmation.
Clear	Clears the fields of the currently displayed tab.
Close	Closes the window. If data is altered, the program requests the data be saved.

Quality/Style Tab

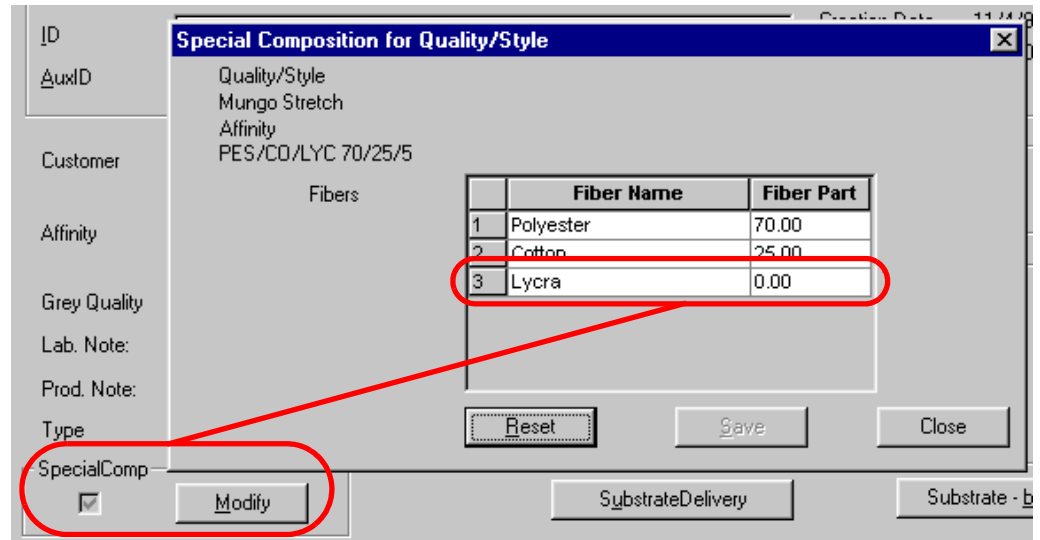
Parameters

Name	Unique name of the quality/style.
ID	Unique identification of the quality/style.
AuxID	Additional identification of the quality/style.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Customer	Name of the customer.
Affinity	Name of the affinity.
Grey Quality/Style	Note on the raw quality/style.
Lab. Note	Additional notes for the laboratory.
Prod. Note	Additional notes for production.
Type	Quality/style type.
Special Comp.	If checked, the composition of quality/style is modified.

Modify (button)

Opens the “Special Composition for Quality/Style” dialog box used for changing the fiber parts.

Example: In a composition of polyester, cotton and Lycra, the Lycra cannot be dyed. If you do not set the Lycra part to 0%, a recipe is calculated for the Lycra part too.



Substrate Delivery (button)

Opens the “Substrate Delivery Dialog” box to measure a new substrate delivery. Refer to [Calibration and Measurement on page 5-10](#), [Specifying, Modifying or Deleting a Quality/Style on page 5-26](#), and [Substrate Delivery: Example on page 5-30](#).

Substrate Blank Dyeing (button)

If this button is activated, you have not measured a substrate. Opens the “Substrate Delivery Dialog” box to measure the first substrate delivery. Refer to [Calibration and Measurement on page 5-10](#), [Specifying, Modifying or Deleting a Quality/Style on page 5-26](#), and [Substrate Delivery: Example on page 5-30](#).

Process Type

Check boxes: **Exhaust**, **Continuous / Printing**.

Use Affinity SmartMatch

If checked, SmartMatch points of all qualities linked with the same affinity are used.

Caution

It is indispensable when this method of SmartMatch matching that only qualities with the same dye behavior are linked to an affinity. Otherwise, the results of matching are unusable.

Characteristics

(Notes) **Weight:** weight
Width: width
Weft: weft material
Warp: warp material.

Affinity Tab

Quality/Style PropertySheet

Quality/Style Affinity Fiber Group Fiber

Name: (All Data) 17642 PES/CO 70/30

ID: PES/CO/70/30

AuxID:

Creation Date: 08.04.1999

Modification: 20.04.1999

User ID: DCI

Fiber Group: Datamatch

Fibers: CO_PES

Search Dyesets

	Fiber Name	Fiber Part
1	Cotton	30.00
2	Polyester	70.00

Total: 4 Levafix SPB (Soda) Exclude

2 Disperse Dispersol Exclude

Save Delete Clear Close

Parameters of the „Affinity“ tab

Name	Unique name of the affinity.
ID	Unique identification of the affinity.
AuxID	Additional identification of the affinity.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Fiber Group	Selection of the fiber group.
Search Colorant Sets (button)	Displays in the “Colorant Set” field the selection boxes for colorant sets.

Fibers:

Fiber Name	Name of the fiber.
Fiber Part	Share of the fiber in percent. The summary of all parts must be 100%.

Colorant Set

Is used to set the link between colorant set and affinity.

Fiber Group Tab

Quality/Style PropertySheet

Quality/Style | Affinity | Fiber Group | Fiber

Name: ...

ID: ...

AuxID:

Creation Date: 08.04.1999

Modification: 20.04.1999

User ID: DCI

Available Fibers:

- Modal
- Polyamid
- Polyacryl
- Viscose
- Wool

>>

<<

Selected Fibers:

- Cotton (Cotton/Modal)
- Polyester

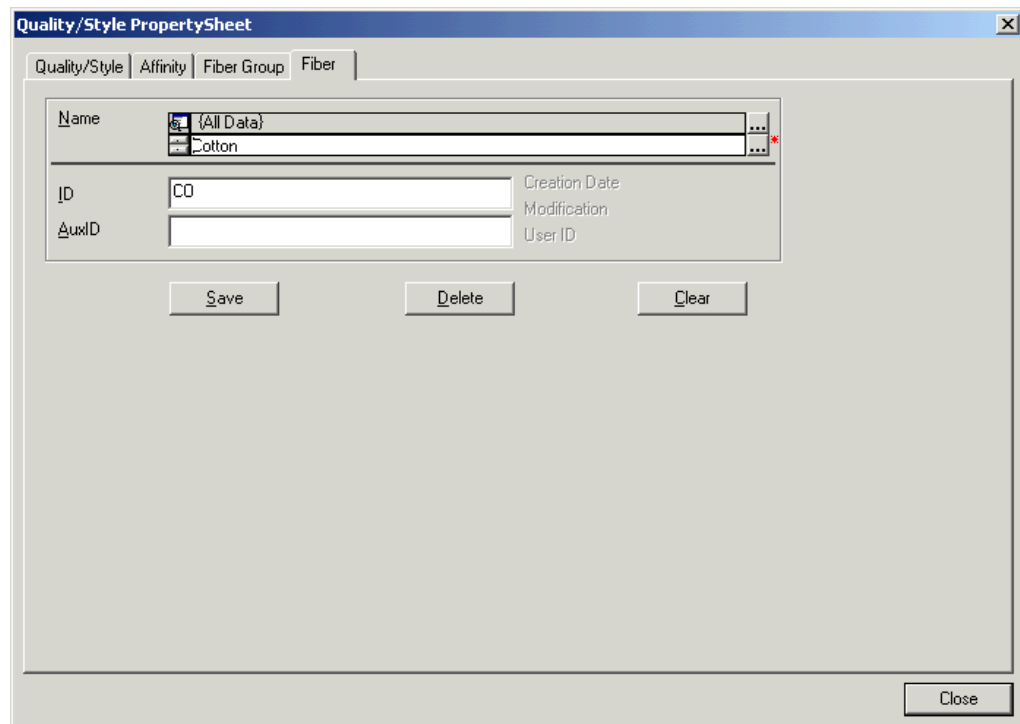
Save Delete Clear

Close

Parameters

Name	Unique name of the fiber group.
ID	Unique identification of the fiber group.
AuxID	Additional identification of the fiber group.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Available/Selected Fibers	<p>In the "Available Fibers" list box, all available fibers are listed. In the "Selected Fibers" list box, the fibers are listed used for the current quality/style definition.</p> <p>The fibers of the two boxes can be selected and moved from one to the other box using the move buttons between the boxes (or double-click the fiber name).</p>

Fiber Tab



The image shows a Windows dialog box titled "Quality/Style PropertySheet". It has four tabs: "Quality/Style", "Affinity", "Fiber Group", and "Fiber". The "Fiber" tab is currently selected. Inside the dialog, there is a "Name" field with a dropdown menu showing "(All Data)" and "Cotton". Below this are three input fields: "ID" (containing "CD"), "AuxID" (empty), and "Creation Date" (empty). To the right of these fields are labels for "Modification" and "User ID". At the bottom of the dialog are three buttons: "Save", "Delete", and "Clear". A "Close" button is located at the bottom right corner of the dialog box.

Parameters

Name	Unique name of the fiber.
ID	Unique identification of the fiber.
AuxID	Additional identification of the fiber.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.

Substrate Delivery Dialog Box

SubstrateDelivery Dialog

Quality/Style: Q17642 PES/CO 70/30

Creation Date: 25.07.2002

Modification:

User ID: DCI

SubstrateDelivery:

New

Q17642 PES/CO 70/30-1

Sample

Sample Measure ...

Fibers

Color	Fiber Name	Effect	Measure
	Cotton
	Polyester

Save Delete Close

Substrate Delivery

Combo box Selection of existing substrate deliveries.

Table columns

Color Color display.

Fiber Name Unique name of the fiber.


Effect Opens the "Substrate Delivery Effect Dialog" box. Refer to [Calibration and Measurement on page 5-10](#), [Specifying, Modifying or Deleting a Quality/Style on page 5-26](#), and [Substrate Delivery: Example on page 5-30](#).

Buttons

New Click to specify a new substrate delivery.

Sample Opens a dialog box to select an existing sample.

Measure Opens the "Measure" dialog box. Refer to [Calibration and Measurement on page 5-10](#).

Measure Directly  Executes the measurement.

Insert Enters the currently displayed substrate delivery.

Delete Deletes the currently displayed substrate delivery.

Close Closes the "Substrate Delivery Dialog" box. If data is altered, the program requests the data be saved.

Substrate Delivery Effect Dialog Box

	Fiber Name	Dyeset	Effect
1	Cotton	Levafix SPB (Soda)	1
2	Cotton	Remazol SPB (Silicate)	1

Insert an new Effect for a Dyeset

Remazol SPB (Silicate) [Browse]

[Insert]

[Save] [Delete] [Close]

Table columns

Fiber Name	Fiber name.
Colorant Set	Unique name of the colorant set (colorant set).
Effect	Effect factor for the recipe calculation (little correction).
Insert a New Effect for a Colorant Set.	Selection box for the colorant set (colorant set). The browse button opens a browse dialog box used to search for colorant sets.



Note

It is possible to create different effects for different colorant sets. The effects must be defined in the "Effect Using" column.
Refer to [Substrate Delivery: Example on page 5-30](#).

Buttons

Insert	Adds the current colorant set to the table.
Save	Saves the currently displayed effect.
Delete	Deletes the currently displayed effect.
Close	Closes the "Substrate Delivery Effect Dialog" box. If data is altered, the program requests the data be saved.

Dye Process Property Sheet

Dye Process Tab

DyeProcess PropertySheet

Dye Process | Process Factors

Name:

ID: Creation Date: 08.04.1999

AuxID: Modification: 04.06.1999

User ID: DCI

Dye Class:

Process Type: ☐ Exhaust ☒ Continuous Pickup [%]: Unit:

Enter the Dyefibergroups. (Group of fiber[s] dyed in the same bath, ie CO,COVI)

	Fiber(s)	
1	CO	
2	CO	MO
3	CO	

Parameters

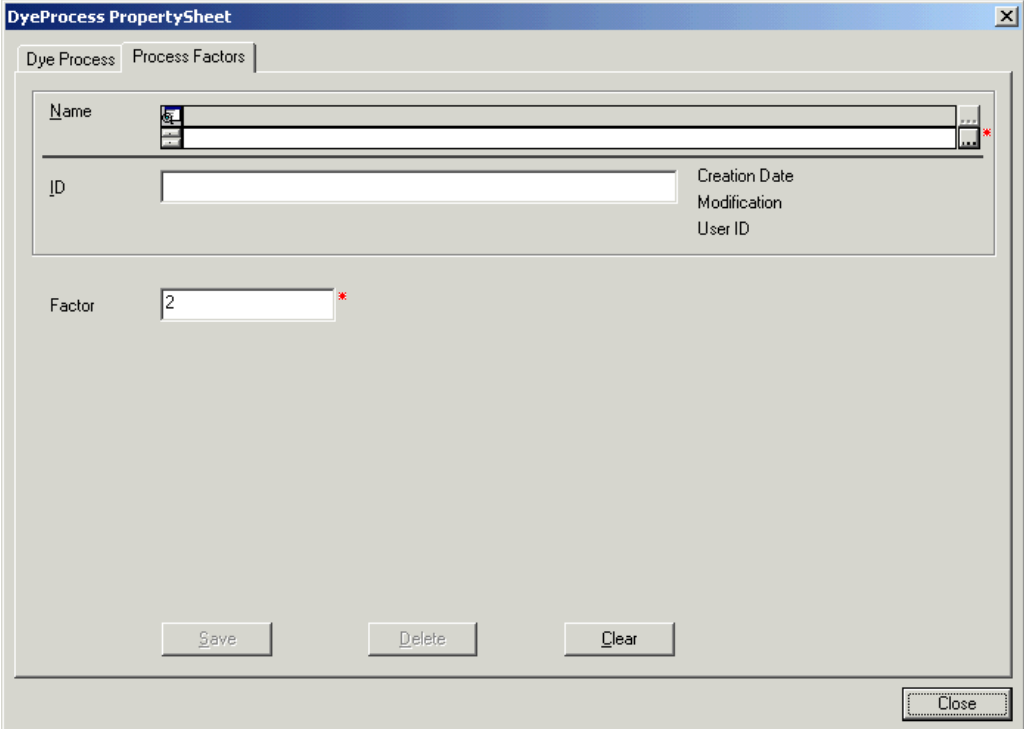
Name	Unique name of the fiber.
ID	Unique identification of the fiber.
AuxID	Additional identification of the fiber.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Dye Class	Selection box for the dye class.
Process Type	Selection of process type, liquor ratio/pickup, and unit.

Table:

Shows the dye fiber group: fibers or fiber groups dyed in the same bath and using the same recipe. Refer to [Specifying dye fiber groups on page 5-37](#).

Process Factors Tab

Used to name process factors.



The image shows a Windows-style dialog box titled "DyeProcess PropertySheet". It has two tabs: "Dye Process" and "Process Factors", with the latter being the active tab. The dialog contains several input fields and buttons. At the top, there is a "Name" field with a small icon on the left and a dropdown arrow on the right. Below this is an "ID" field. To the right of the "ID" field are three labels: "Creation Date", "Modification", and "User ID". Below the "ID" field is a "Factor" field containing the number "2". At the bottom of the dialog are four buttons: "Save", "Delete", "Clear", and "Close".

Parameters

Name	Unique name of the factor.
ID	Unique identification of the factor.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Factor	Input of a process factor.

Product Property Sheet

Buttons

Save	Saves the displayed product definition.
Delete	Deletes the displayed product definition after confirmation.
Clear	Clears the fields of the currently displayed tab.
Close	Closes the window. If data is altered, the program requests the data be saved.

Auxiliary Tab

The screenshot shows the 'Product PropertySheet' dialog box with the 'Auxiliary' tab selected. The dialog is divided into several sections. The top section contains 'Name' (Cibatex APS), 'ID' (CIB-APS), and 'AuxID' (CIB-APS). The middle section contains 'Product Supplier' (CIBA), 'Product Type' (Auxiliary), 'Product Form' (Solid), 'Default Delivery' (CIBA-1999.06.03), 'Product Strength' (100%), 'Specific Gravity' (0), 'Lab Strength Factor' (1), 'Actual Price' (1.7), 'Invent Unit' (kg), and 'Special Stock Solution' (Default Auxiliary). The bottom section contains a 'Note' field and a 'FormulaSetting...' button. At the very bottom are buttons for 'Save', 'Delete', 'Clear', and 'Close'.

Parameters

Name	Unique name of the product.
ID	Unique identification of the product.
AuxID	Additional identification of the product.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of the creating or last modifying user.
Product Supplier	Unique name of the product supplier.
Product Type	Product type, e.g., Auxiliary (default).
Product Form	Product form, e.g. liquid or solid.
Default Delivery	Date of the default delivery selected from the delivery list. Data are imported from Datacolor Process.

Product Strength	Currently supplied concentration.
Specific Gravity	Specific weight.
Lab Strength Factor	Current laboratory strength factor.
Actual Price	Current price (per inventory unit).
Invent. Unit	Unit for the calculation of costs. This unit is defined in the „Unit Selection“ tab of the „Options“ dialog box together with a weight or volume. It is necessary because the sample weight and the batch volume are normally too low for the calculation of the costs.
Special Stock Solution	Special stock solution. If stock solution is activated in the options, the default stock solution is selected. If a specific stock solution is required for a product, you must define it in the “Stock Solution” tab.
Note	Field for additional notes.
Formula Setting (button)	Opens the “Formula Setting” dialog box for product settings used by the production software. Refer to Formula Setting Dialog Box on page 7-42 .

Product Supplier Tab

Product PropertySheet

Dyestuff Type(Form)		Dye Description		Stock Solution	
Auxiliary	Product Supplier	Dyestuff	DyeClass	Supplier Dyename	Dyestuff Color
Name	<input type="text" value="{All Data}"/> <input type="text" value="CIBA"/>				
ID	<input type="text" value="CIBA"/>	Creation Date	<input type="text" value="08.04.1999"/>		
AuxID	<input type="text"/>	Modification	<input type="text" value="03.06.1999"/>		
		User ID	<input type="text" value="DCI"/>		
Contact person	<input type="text" value="Mr. Müller"/>				
Address	<input type="text" value="Klybechstrasse 141"/>				
Address 2	<input type="text"/>				
City	<input type="text" value="BASEL"/>				
Zip code	<input type="text" value="4002"/>				
State	<input type="text"/>				
Country	<input type="text" value="Switzerland"/>				
Phone number	<input type="text"/>				
Fax number	<input type="text"/>				
E-Mail	<input type="text"/>				
<input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Clear"/>					
<input type="button" value="Close"/>					

Parameters

Name	Unique name of the product supplier.
ID	Unique identification of the product supplier.
AuxID	Additional identification of the product supplier.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Contact Person	Name of the contact person.
Address	Address of the product supplier.
Address 2	Additional address of the product supplier.
City	Address: Name of the city.
Zip Code	Zip code.
Country	Name of the country.
Phone Number	Phone number of the product supplier.
Fax Number	Fax number of the product supplier.
E-Mail	E-mail address of the product supplier.

Dyestuff Tab

Product PropertySheet

Dyestuff Type(Form)		Dye Description		Stock Solution	
Auxiliary	Product Supplier	Dyestuff	Dye Class	Supplier Dyename	Dyestuff Color
Name [All Data] [Bezaktiv Red S-3B 150%]					
ID BRD S3B		Creation Date 08.04.1999		Modification 04.04.2000	
AuxID BRD S3B		User ID DCI			
Supplier Dyename [Bezaktiv]		Dye Description		Dyestuff Type (Form)	
Dyestuff Color [Red]				Dyestuff Strength [150] [%]	
Dyename Ext.				Compose Name	
Dye Class [All Data] [Reactive]					
Product Supplier [All Data] [Bezema AG]		Product Type		Dyestuff	
Default Delivery <No Delivery>		Product Form		Solid	
Lab strength Factor 1		Actual Price 28		Color Index	
Invent Unit kg		Specific Gravity 0		Special Stock Solution	
Note		Default Dyestuff			
Save		Delete		Clear	
Close					

Parameters

Name	Unique name of the dyestuff.
ID	Unique identification of the dyestuff.
AuxID	Additional identification of the dyestuff.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Supplier Dye Name	Dye name of the supplier.
Dye Description	Description, e.g., Brilliant.
Dyestuff Color	Name of the color.
Dyestuff Type (Form)	Dyestuff type, e.g., Light.
Dye Name Ext.	Dyestuff name extension.
Dyestuff Strength	Currently supplied strength.
Dye Class	Dye class, e.g., Disperse.
Compose Name (button)	If activated a dyestuff name is composed using "Supplier Dye Name," "Dye Description", "Dyestuff Color, and "Dyestuff Type."
Product Supplier	Unique name of the product supplier.
Product Type	Product type, e.g., Dyestuff (default).
Default Delivery	Date of the default delivery selected from the delivery list. Data are imported from Datacolor Process.

Product Form	Product form, e.g. liquid or solid.
Lab Strength Factor	Current laboratory strength (differences to the default delivery).

**Note**

The Lab Strength Factor is a divisor.

Example:

Original: 100%. New delivery: 97%. Lab Strength Factor: 0.97

The original quantity is **divided** into 0.97.

Exception: If the recipe is sent to a laboratory dispenser the concentration is corrected.

Actual Price	Current price (per inventory unit).
Invent. Unit	Inventory unit.
Specific Gravity	Specific gravity.
Color Index	Refer to Color index on page 8-2 .
Note	Field for additional notes.
Special Stock Solution	Special stock solution.

Dye Class Tab

Product PropertySheet

Dyestuff Type(Form)		Dye Description		Stock Solution	
Auxiliary	Product Supplier	Dyestuff	DyeClass	Supplier Dyename	Dyestuff Color
Name: <input type="text" value="{All Data}"/> <input type="button" value="..."/> <input type="button" value="Reactive"/>					
ID	<input type="text" value="REA"/>		Creation Date	08.04.1999	
AuxID	<input type="text"/>		Modification	20.04.1999	
			User ID	DCI	
Note: <input type="text"/>					
Technical Data					
	Parameter Name	ID	Prototype		
1	Lightfastness 1/6	L 1/6	Rating		
2	Lightfastness 1/1	L 1/1	Rating		
3	Washing C2	WSH C2	Rating		
4	Washing E2	WSH E2	Rating		
5	Prespiration alkaline	PRES AL	Rating		
6	Prespiration acid	PRES AC	Rating		
7	Hypochlorite bleaching mild	HYPO M	Rating		
8	White discharge dark	WT DISCH D	Listbox: Yes Partly No		
9	Colored discharge pale	COL DISCH P	Listbox: Yes Partly No		
10	Colored discharge dark	COL DISCH D	Listbox: Yes Partly No		
11					
12					

Buttons:

Parameters

Name	Unique name of the dye class.
ID	Unique identification of the dye class.
AuxID	Additional identification of the dye class.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Note	Field for additional notes.

Technical Data:

Table with the parameter sequence assigned to all dyestuffs of a colorant set with this dye class. The values are to be assigned to the colorant set program.

Supplier Dye Name Tab

Product PropertySheet

Dyestuff Type(Form) | Dye Description | Stock Solution

Auxiliary | Product Supplier | Dyestuff | DyeClass | Supplier Dyename | Dyestuff Color

Name: Bezaktiv *

ID: B | Creation Date

AuxID: | Modification

Supplier: (All Data) Bezema AG *

DyeClass: (All Data) Reactive *

Save | Delete | Clear

Close

Parameters

Name	Unique supplier dye name, e.g., Terasil, Remazol.
ID	Unique identification of the supplier dye name.
AuxID	Additional identification of the supplier dye name.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Supplier	Unique name of the supplier.
Dye Class	Dye class, e.g., Disperse.

Dyestuff Color Tab

The screenshot shows a Windows-style dialog box titled "Product PropertySheet". It has a tabbed interface with three tabs: "Dyestuff Type(Form)", "Dye Description", and "Stock Solution". The "Dye Description" tab is currently selected. Below the tabs, there are several input fields and labels. The "Name" field contains the text "Bordeaux". The "ID" field contains "BOR". The "AuxID" field is empty. To the right of these fields, there are labels for "Creation Date", "Modification", and "User ID", each with a corresponding empty input field. At the bottom of the dialog, there are three buttons: "Save", "Delete", and "Clear". A "Close" button is located in the bottom right corner.

Parameters

Name	Unique name of the dyestuff color.
ID	Unique identification of the dyestuff color.
AuxID	Additional identification of the dyestuff color.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.

Dyestuff Type (Form) Tab

The screenshot shows a Windows-style dialog box titled "Product PropertySheet". It has a tabbed interface with the following tabs: Auxiliary, Product Supplier, Dyestuff (selected), Dye class, Supplier Dyename, and Dyestuff Color. The "Dyestuff" tab is active and contains the following fields and controls:

- Dyestuff Type(Form)**: A label above a text field containing "Conc.".
- Dye Description**: A label above a text field containing "C".
- Stock Solution**: A label above a text field.
- Name**: A label above a text field containing "Conc.".
- ID**: A label above a text field containing "C".
- AuxID**: A label above a text field.
- Creation Date**: A label above a text field.
- Modification**: A label above a text field.
- User ID**: A label above a text field.
- Buttons**: "Save", "Delete", and "Clear" buttons are located below the input fields.
- Close**: A button located at the bottom right of the dialog box.

Parameters

Name	Unique name of the dyestuff type, e.g. gran., conc., supra.
ID	Unique identification of the dyestuff type.
AuxID	Additional identification of the dyestuff type.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.

Dye Description Tab

The screenshot shows a Windows-style dialog box titled "Product PropertySheet". It has a tabbed interface with the "Dye Description" tab selected. The tabs are: Auxiliary, Product Supplier, Dyestuff, Dye Description, Supplier Dyename, and Dyestuff Color. The "Dye Description" tab contains three sub-sections: "Dyestuff Type(Form)", "Dye Description", and "Stock Solution". The "Dye Description" sub-section has three input fields: "Name" (containing "Brilliant"), "ID" (containing "BR"), and "AuxID" (empty). To the right of these fields are three labels: "Creation Date", "Modification", and "User ID". Below the input fields are three buttons: "Save", "Delete", and "Clear". A "Close" button is located at the bottom right of the dialog box.

Parameters

Name	Unique name of the dye description, e.g., Brilliant, Dark.
ID	Unique identification of the dye description.
AuxID	Additional identification of the dye description.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.

Stock Solution Tab

Product PropertySheet

Auxiliary | Product Supplier | Dyestuff | DyeClass | Supplier Dyename | Dyestuff Color

Dyestuff Type(Form) | Dye Description | Stock Solution

Name:

ID: Creation Date: 04.04.2000

AuxID: Modification: User ID: DCI

Description:

Exhaust

Amount smaller than ... [g]	Stock Solution 1:
0.5	10
0.1	100
0.01	1000
0.001	10000

Continuous

Amount smaller than ... [g]	Stock Solution 1:
1	10
0.5	100
0.05	1000

Save Delete Clear

Close


Parameters

Name	Unique name of the stock solution.
ID	Unique identification of the stock solution.
AuxID	Additional identification of the stock solution.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Description	Field for an additional description.
Exhaust/Continuous	Input fields for the stock solutions in relation to the amount in g. Refer to Specifying A Stock Solution on page 5-36 .

Formula Setting Dialog Box

Note: These settings are used in production software only !

Formula Setting for 'Persoftal L'

Default Unit  ml/l

Auxiliary calculation with supplier dyestuff strength ☐

☐ Print if zero ☐ Print only with price
☐ Calculate without print ☐ Use small fonts
☐ Repeat value

Totalize quantities
☐ Minimum
☒ Maximum
☐ Total

Minimum Value Max. decimal places

Maximum Value

ErrorMessage

Parameters

Default Unit Unit for the formula.

Save (button) Saves the current settings.

Close (button) Closes the window. If data is altered, the program requests the data be saved.

All other parameters are only used for production.

Customer Property Sheet

Buttons

Save	Saves the displayed customer definition.
Delete	Deletes the displayed customer definition after confirmation.
Clear	Clears the fields of the currently displayed tab.
Close	Closes the window. If data is altered, the program requests the data be saved.

Customer Tab

The screenshot shows a Windows-style dialog box titled "Customer PropertySheet". It has a tab labeled "Customer". Inside the dialog, there are several input fields and buttons. The "Name" field has a dropdown menu currently showing "{All Data}" with "Marks & Spencer" listed below it. To the right of the Name field, there are labels for "Creation Date" (14.04.1999), "Modification" (16.11.1999), and "User ID" (DCI). Below the Name field, there are fields for "ID" (containing "M&S") and "AuxID" (empty). Further down, there is a "ToleranceName" field with a dropdown showing "System" and "MS89" below it, and a "ToleranceFactor" field containing the number "1". At the bottom right, there is an "Address..." button. At the bottom center, there are three buttons: "Save", "Delete", and "Clear". At the bottom right corner, there is a "Close" button.

Parameters

Name	Unique name of the customer.
ID	Unique identification of the customer.
AuxID	Additional identification of the customer.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Tolerance Name	Unique name of the tolerance definition. Using the context-sensitive menu, you can open the "Option" input form to specify tolerances.
Tolerance Factor	Tolerance factor.
Address (button)	Opens the "Address" dialog box.

Address Dialog Box

Parameters

Name	Unique name of the customer.
ID	Unique identification of the customer.
AuxID	Additional identification of the customer.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Address	Address of the product supplier.
Address 2	Additional address of the product supplier
City	Address: Name of the city.
Zip Code	Zip code.
Country	Name of the country.
Contact Person	Name of the contact person.
Phone Number	Phone number of the product supplier.
Fax Number	Fax number of the product supplier.
E-Mail	E-mail address of the product supplier.

Buttons

Save	Saves the displayed address.
Close	Closes the window. If data is altered, the program requests the data be saved.

Color Type Property Sheet

Buttons

Save	Saves the displayed color type definition.
Delete	Deletes the displayed color type definition after confirmation.
Clear	Clears the fields of the currently displayed tab.
Close	Closes the window. If data is altered, the program requests the data be saved.

Parameters of the "Color Type" tab

Name	Unique name of the color type.
ID	Unique identification of the color type.
AuxID	Additional identification of the color type.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Lab Note	Additional Notes for the laboratory.
Prod. Note	Additional Notes for the production.
Tolerance Name	Unique name of the tolerance.
Tolerance Factor	Tolerance factor.
White	Check it, if the sample is a measurement of a blank substrate or an optical brightened sample.

Tolerance Block Program Dialog Box

General parameters

Name	Unique name of the tolerance.
Modification	Date of last tolerance.
User ID	Identification of creating or modifying user.
Description	Text field.

Buttons

Delete	Deletes the selected tolerance.
Default	Sets the default values in the selected tab.
Save	Saves the current tolerance.
Close	Closes the dialog box.

[Refer the following pages for information about the tabs.](#)

CieLab Tab

Tolerance Block Program

Name: System
CieLab Default


Creation Date: 01.04.1999
Modification: 04.04.2000
User ID: DCI

Description:

☒ CieLab
 ☐ CMC
 ☐ Datacolor
 ☐ FMC2
 ☐ JPC79
 ☐ MS89
 ☐ Cie 94
 ☐ DIN 99

Illuminant	dE*	dL* max	da* max	db* max	dC* max	dH* max
All Illuminants	1.00	0.00	0.00	0.00	0.00	0.00

☒ Symmetric tolerances



Delete Default Save

Close

Parameters

Table Input values for minimum and maximum tolerances.

Symmetric Tolerances Minimum and maximum values are symmetric.

Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

Datacolor Tab

Parameters

Datacolor Block Training	Opens the “Datacolor Tolerance Block” dialog box.
Block Manual Input	Opens the “Manual Input of Tolerance Values” dialog box.
Tolerance Values	Opens the “Tolerance Values Output” dialog box used for information about tolerance values.

Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

FMC2 Tab

The screenshot shows the 'Tolerance Block Program' dialog box with the 'FMC2' tab selected. The 'Name' field contains 'System' and 'FMC-2'. The 'Creation Date' is '01.04.1999', 'Modification' is blank, and 'User ID' is 'DCI'. The 'Description' field is empty. Below the description are tabs for various color spaces: CieLab, CMC, Datacolor, FMC2 (selected), JPC79, MS89, Cie 94, and DIN 99. A table with two columns, 'Illuminant' and 'Limit', is displayed. The first row shows 'All Illuminants' with a 'Limit' of '1.00'. A color checker chart is visible in the bottom left. At the bottom right are buttons for 'Delete', 'Default', 'Save', and 'Close'.

Illuminant	Limit
All Illuminants	1.00

Parameters

Table Input for tolerance value.

Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

JPC79 Tab

Tolerance Block Program

Name: System (dropdown menu) JPC-79 (dropdown menu) ... *

Creation Date: 01.04.1999
Modification:
User ID: DCI

Description:

CieLab CMC Datacolor FMC2 JPC79 MS89 Cie 94 DIN 99

Illuminant	Limit
All Illuminants	1.00

Color calibration icon

Delete Default Save Close

Parameters

Table Input for tolerance value.

Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

MS89 Tab

Tolerance Block Program

Name:

Creation Date: 01.04.1999
Modification:
User ID: DCI

Description:

☐ Cielab
 ☐ CMC
 ☐ Datacolor
 ☐ FMC2
 ☐ JPC79
 ☒ MS89
 ☐ Cie 94
 ☐ DIN 99

Only illuminants msTL84-10, msD65-10 and msA-10 are approved for MS89!

Illuminant	dE*	DH	'DC'	'DL'
msTL84-10	1.20	0.60	0.80	0.80
msD65-10	1.50	0.75	1.00	1.00
msA-10	1.50	0.75	1.00	1.00

Parameters

Table Input of dE values. The other tolerance values are calculated.
Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

**Note**

The user can only modify the dE values. DH, DC and DL are calculated automatically. These values are displayed after saving the tolerance, and closing and opening the dialog box.

Cie 94 Tab

The screenshot shows the 'Tolerance Block Program' dialog box with the 'Cie 94' tab selected. The dialog has a title bar with a close button. Inside, there's a 'Name' field with a dropdown menu showing 'System' and a red asterisk. Below this is a section for 'Creation Date', 'Modification', and 'User ID'. A 'Description' field is also present. A row of tabs includes 'CieLab', 'CMC', 'Datacolor', 'FMC2', 'JPC79', 'MS89', 'Cie 94' (selected), and 'DIN 99'. The 'Cie 94' tab contains a group box with 'DE : 1', 'CIE94 (l : c : h)', 'KI : 2', 'Kc : 1', and 'Kh : 1'. At the bottom left is a 'CIE' logo, and at the bottom right are 'Delete', 'Default', 'Save', and 'Close' buttons.

Parameters

Table Input for tolerance values.

Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

DIN99 Tab

Tolerance Block Program

Name:

Creation Date
Modification
User ID

Description:

☐ CieLab
 ☐ CMC
 ☐ Datacolor
 ☐ FMC2
 ☐ JPC79
 ☐ MS89
 ☐ Cie 94
 ☒ DIN 99

DIN99 Parameters: Ke = Change Kch =

DE(99):

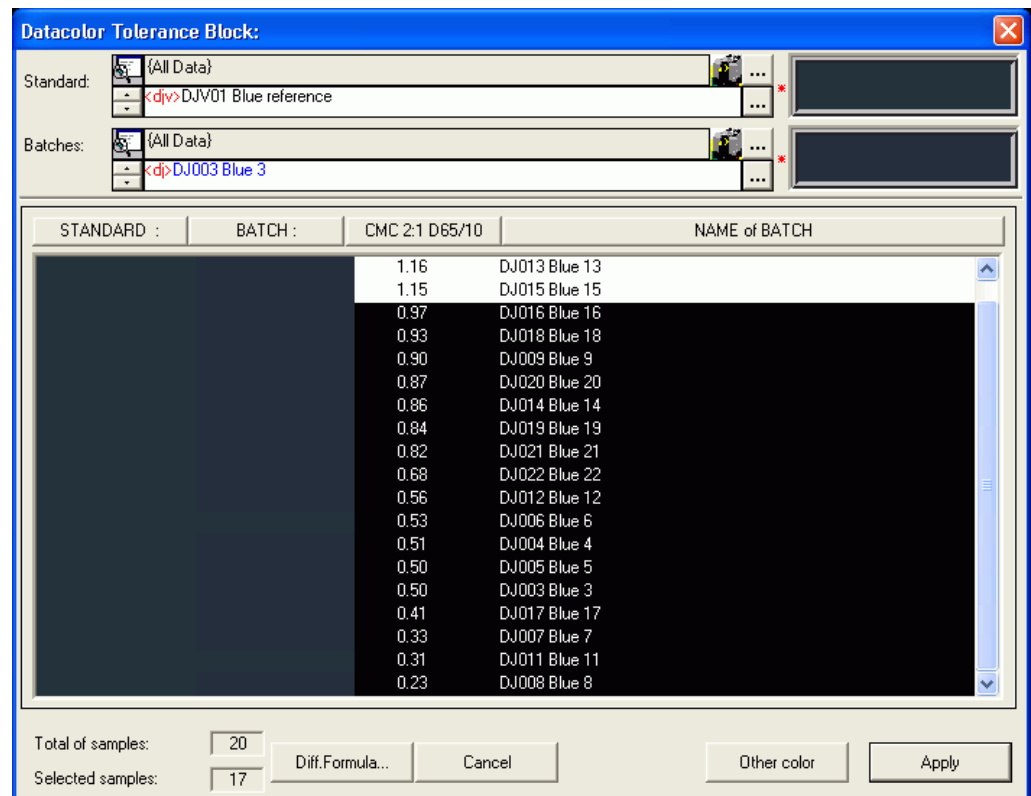
Deltas:	Low	High
L(99):	<input type="text" value="0"/>	<input type="text" value="0"/>
a(99):	<input type="text" value="0"/>	<input type="text" value="0"/>
b(99):	<input type="text" value="0"/>	<input type="text" value="0"/>
C(99):	<input type="text" value="0"/>	<input type="text" value="0"/>
H(99):	<input type="text" value="0"/>	<input type="text" value="0"/>

Parameters

Table Input for tolerance values.

Refer to [Specifying, Modifying or Deleting Tolerances on page 5-44](#).

Datacolor Tolerance Block Dialog Box



Standard

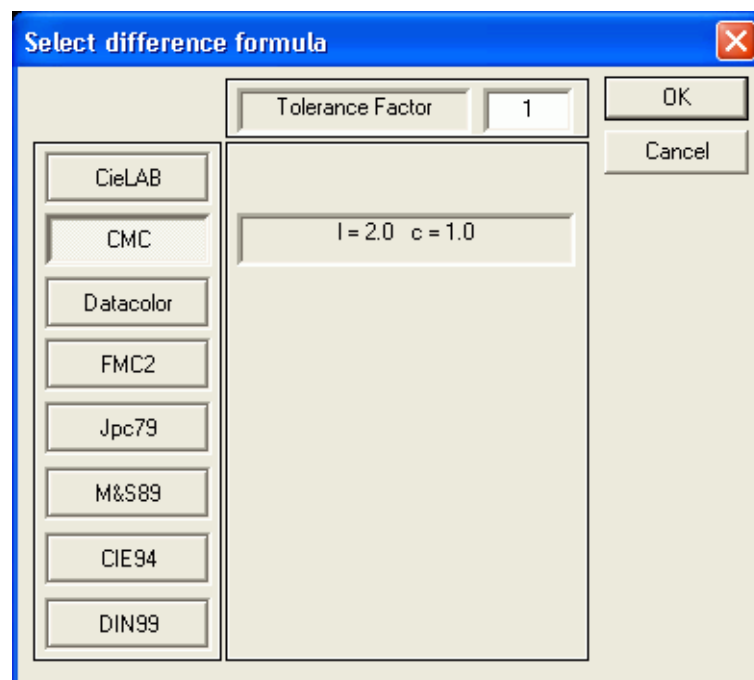
Selection or measurement of the standard.

Batch

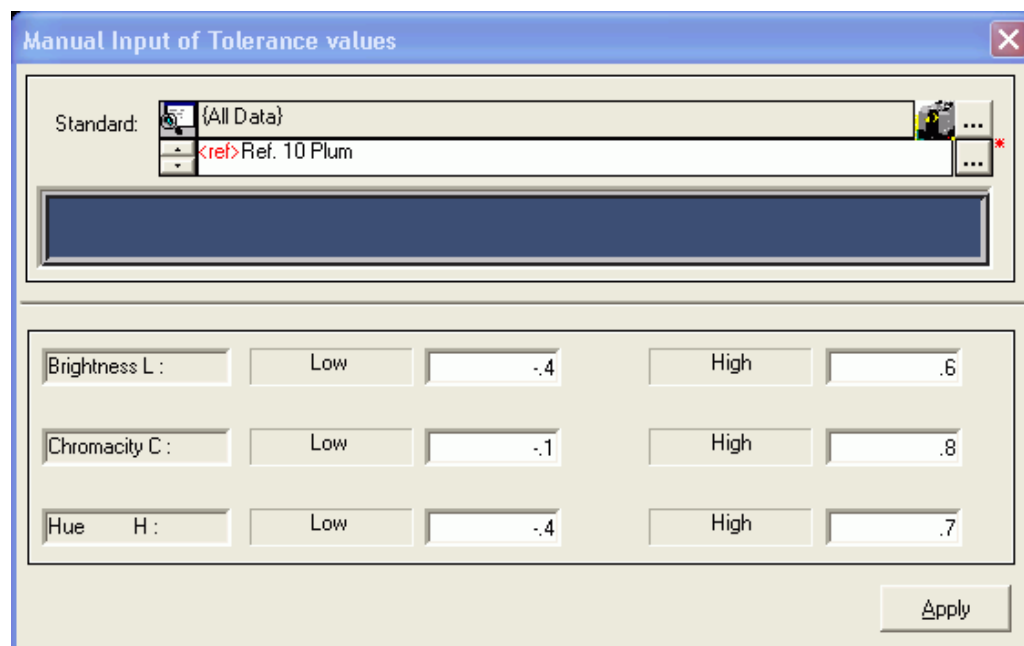
Selection or measurement of the batch.

Diff. Formula (button)

Opens the „Select Difference Formula“ dialog box for the selection of the formula.



Manual Input of Tolerance Values Dialog Box



Parameter Definition Dialog Box

The parameter values are defined in a colorant set for each dye, and are used to set limits for the recipe calculation. Examples: Fastness parameter, operation parameter, etc.

Buttons

Formula Setting	Opens the “Formula Setting” dialog box for product settings used by the production software. Refer to Formula Setting Dialog Box on page 7-42 .
Save	Saves the displayed parameter definition.
Delete	Deletes the displayed parameter definition after confirmation.
Clear	Clears the fields of the currently displayed tab.
Close	Closes the window. If data is altered, the program requests the data be saved.

Parameters

Name	Unique name of the parameter.
ID	Unique identification of the parameter.
AuxID	Additional identification of the parameter.
Creation Date	Date of creation.
Modification	Date of last modification.
User ID	Identification of creating or modifying user.
Parameter Type	Parameter type: Value for numeric values String for a string value List box for a list box.
Unit	Unit. Only used for “Parameter Type Value.”
Text List	Text input for a list box.
Note	Field for additional notes.

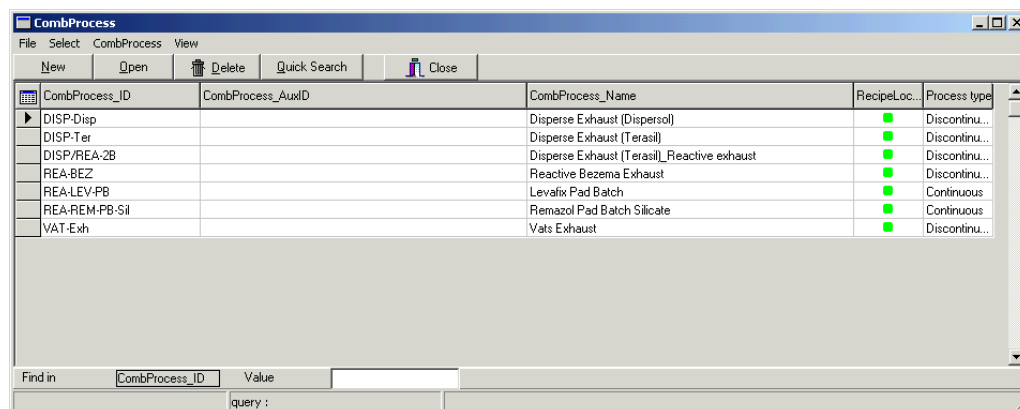
Combined Processes Browse Window



Note

Refer to the Datacolor Process documentation for more information.

Browse window for combined processes. Refer to [Specifying Combined Processes on page 5-61](#).



Functions of the “Select” menu

Quick Search Opens a dialog box used to search combined processes. Refer to [Quick Search Dialog Box on page 7-59](#).

Default Query Selects all combined processes.

User Query **Only for advanced database users.** Opens the “Query Designer.” Refer to the Datacolor Process documentation.

Functions of the “View” menu

Find in ... Value Switches the search bar on and off.

Reset Resets the search bar.

Record Count Displays the number of records in the title bar.

Buttons

New Opens the “Combined Process” window for specifying a new combined process. Refer to [Specifying, Modifying, Deleting A Combined Process on page 5-62](#).

Open Opens the “Combined Process” window with the selected combined process. Refer to [Specifying, Modifying, Deleting A Combined Process on page 5-62](#).

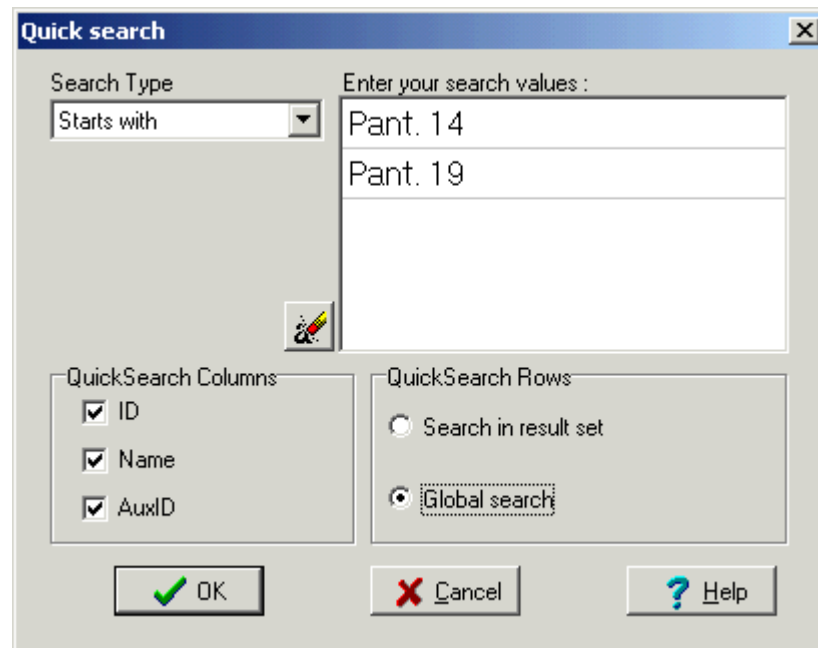
Delete Deletes the currently selected combined process after confirmation.

Quick Search Opens a dialog box used to search combined processes. Refer to [Quick Search Dialog Box on page 7-59](#).

Duplicate Duplicates the currently selected combined process.

Close Closes the window. If data is altered, the program requests the data be saved.

Quick Search Dialog Box



Search Type Values: Exact match, Start with, Ends with, Contains, Use Wildcards.

Enter your search values The values can be removed using the button on the left.

Quick Search Column Check to activate table columns for searching.

**Note**

Refer to the Datacolor Process documentation for more information.

Table columns

CombProcess_ID	Unique identification of the combined process.
CombProcess_AuxID	Additional identification of the combined process.
CombProcess_Name	Unique name of the combined process.

Context-sensitive menu

Refresh Grid	Refreshes the grid.
Select All	Selects all displayed combined processes.
Unselect All	Deselect all combined processes.
Locate	Opens the "Locate" dialog box. Refer to Specifying Combined Processes on page 5-61 .
Filter	Opens the "Filter" dialog box. Refer to Specifying Combined Processes on page 5-61 and to the Datacolor Process documentation.
Show/Hide Columns	Opens the "Selected Fields" dialog box. Using the move buttons, you can move the field columns to be displayed to the "Selected Fields" and remove the field columns that are not to be displayed.
Set Font	Opens the "Font" dialog box used to define the font for the table.

Combined Process Window



Note

Refer to the *Datacolor Process* documentation for more information.

Only available for users with full access.

CombProcess : Levafix Pad Batch (REA-LEV-PB)

File Edit

Navigation: [Previous], [Previous], [Next], [Next], [Add], [Remove], [Apply], [OK], [Cancel], [Help]

Tabs: General | Treatments | Products/Parameters | References / Settings

General Tab Fields:

- ID: REA-LEV-PB
- AuxID: [Empty]
- Name: Levafix Pad Batch
- Process type: Continuous
- CombProcessGroup: Dyeing

Dye process:

Type	DyeProcess_ID	DyeProcess_Name
C	22	Reactive Cold Pad Batch (Soda)

FiberGroup:

- CO
- CO/MO

Lab note: [Text Area]










Production note: [Text Area]

User : DCI | created 08.04.1999, modified 24.09.1999 by DCI

Functions of the “Edit” menu

- | | |
|-----------|--|
| New | Prepares the window for specifying a new combined process. |
| Delete | Deletes the currently displayed combined process. |
| Duplicate | Duplicates the currently displayed combined process. |

Buttons

	First	Jumps to the first combined process of the list.
	Previous	Jumps to the previous combined process.
	Next	Jumps to the next combined process.
	Last	Jumps to the last combined process of the list.
	New	Prepares the window for specifying a new combined process.
	Delete	Deletes the currently displayed combined process.
	Apply	Saves the currently displayed data. The window is not closed.
	OK	Saves the currently displayed data and the window closes.
	Cancel	Closes the window without saving.

Parameters of the “General” tab

ID	Unique identification of the combined process.
CombProcess_AuxID	Additional identification of the combined process.
CombProcess_Name	Unique name of the combined process.
Process Type	Displays the process type the combined process is used for.
<i>Dye Process:</i>	
Type	Type of the dye process.
DyeProcess_ID	Unique identification of the dye process.
DyeProcess_Name	Unique name of the dye process.
Fiber Group	List of the fiber groups.
Lab Note	Additional Notes for the laboratory.
Production Note	Additional Notes for the production.

**Note**

In the “Lab Note” and “Production Note” fields, a context-sensitive menu is used for changing data. The **Cut**, **Copy** and **Paste** functions are used to copy notes from a combined process to others.

Parameters of the “Treatments” tab

The screenshot shows the 'CombProcess : Levafix Pad Batch (REA-LEV-PB)' dialog box with the 'Treatments' tab selected. The 'Process type' is set to 'Continuous'. The 'Operations' table lists the following:

#	Name	LabOperation_ID	ProdOperation_ID
1	PAD	REA-LEV-PB	REA-LEV-PB
2	BATCHING		BTCH
3	RINSE		RNS-CNT
4	ACIDIFICATION		ACD-CNT
5	SOAPING		SP-CNT
6	RINSE		RNS-CNT
7	TOTAL TIME		T-T

Below the operations table, there is a section for 'Valid machinegroup for the treatment:' with a table showing:

MachineGroup_ID	MachineGroup_Name
FOUL	FOULARD

The status bar at the bottom indicates 'User : DCI' and 'created 08.04.1999, modified 24.09.1999 by DCI'.

Process Type

Process type.

Name

Unique process name.

Visible Operations:

Regular

The normal operation list is displayed.

Additions

The operation list for an addition process is displayed.

Operations:

#

Ordinal number.

Name

Description of the operation. Default: No operation name.

LabOperation_ID

Unique identification of the operation used in the laboratory.

ProdOperation_ID

Unique identification of the operation used for production.



If the calculator is highlighted, the operation is based on a formula. A double-click on the calculator opens the “Formula Edit” window. Refer to [Specifying Formulae on page 5-66](#).

Valid machine group for the treatment:

MachineGroupID

Unique identification of the machine group.

MachineGroupName

Name of the machine group.

Context-sensitive menu of the "Operations" table

Open Operation	Opens the "Treatment Operation" dialog box. Refer to Specifying, Modifying, Deleting A Combined Process , and Specifying, Modifying, Deleting An Operation on page 5-64 .
Edit Operation Count	Opens the "Formula Edit" window. Refer to Specifying Formulae on page 5-66 .
Clear Operation Count	Refer to Specifying, Modifying, Deleting An Operation on page 5-64 .

Context-sensitive menu of the "Machine Group" table

Edit Criteria	Opens the "Formula Edit" window. Refer to Specifying Formulae on page 5-66 .
Delete Criteria	Deletes the selected criteria after confirmation.

Parameters of the "Product/Parameters" tab*Product table:*

Product_ID	Unique identification of the product.
Product_Name	Unique name of the product.
Value	Numeric value.
Unit_ID	Unit.

Parameter table:

Parameter_ID	Unique identification of the parameter.
Parameter_Name	Unique name of the parameter.
String Value	String value.
Value	Numeric value.

Parameters of the "References/Settings" tab

Default Prod. Form Data/Default Lab. Form Data	<i>Display of the corresponding data.</i>
Table:	Name of the linked form and number of records.
Open (button)	Opens the selected form.

Operations Browse Window



Note

Refer to the *Datacolor Process documentation* for more information.

Browse window for operations. Refer to, [Browse and Selecting on page 5-2](#) and [Specifying, Modifying, Deleting An Operation on page 5-64](#).

Operation_ID	Operation_Name	Operation_AuxID	Lab...	Prod...
1	Reactive	DM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Vat	DM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Disperse	DM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ACD	Acidification		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ACD-CNT	Continuous Acidification		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BTCH	Batching		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DISP-HT	Disperse HT Dyeing		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FN-CTT-AT	Cottoblanco Aftertreatment		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
REA-BZ-XH	Bezema Exhaust Isotherme Method		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
REA-LEV-PB	Levafix Pad Batch		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
REA-REM-PB-Sil	Remazol Pad Batch Silicate		<input type="checkbox"/>	<input checked="" type="checkbox"/>
RED-CL	Reduction Clear		<input type="checkbox"/>	<input checked="" type="checkbox"/>
RNS-50	Rinse 50		<input type="checkbox"/>	<input checked="" type="checkbox"/>
RNS-70	Rinse 70		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RNS-CLD	Cold Rinse		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RNS-CLD-OFL	RNS-CLD-OFL		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RNS-CNT	Continuous Rinse		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Functions of the “Select” menu

- Quick Search** Opens the “Quick Search” dialog box used to search operations. [Quick Search Dialog Box on page 7-59](#).
- Default Query** Selects all operations.
- Custom Query** **Only for advanced database users.** Opens the “Query Designer.” Refer to the *Datacolor Process documentation*.
- Operations used by a given comb. process** Opens the “ITM” dialog box that is used for specifying a CombProcess_ID. After clicking OK, the operations found are listed.
- Operations used by a given Dye lot** Opens the “ITM” dialog box that is used for specifying a Dye Lot_ID. After clicking OK, the operations found are listed.

Functions of the “View” menu

- Find in ... Value** Opens a search bar in the window footer. Click a table column, specify a search value and hit the tabulator key.
- Reset** Resets the search bar in the window footer.
- Record Count** Displays the number of records found.

Buttons

- New** Opens the “Operation” window used to specify a new operation. Refer to [Specifying, Modifying, Deleting An Operation on page 5-64](#).
- Open** Opens the “Operation” window with the data of the selected operation.

Delete	Deletes the selected operation after confirmation.
Quick Search	Opens the "Quick Search" dialog box used to search operations. Quick Search Dialog Box on page 7-59 .
Duplicate	Duplicates the currently selected operation. Refer to Specifying, Modifying, Deleting An Operation on page 5-64 .
Close	Closes the "Operation" window.
Table columns	
Operation_ID	Unique identification of the operation.
Operation_AuxID	Additional identification of the operation.
Operation_Name	Unique name of the operation.
Lab	If checked, the operation is used in the laboratory.
Prod.	If checked, the operation is used in production.
Context-sensitive menu	
Refresh Grid	Refreshes the grid.
Select All	Selects all operations of the list.
Unselect All	Removes the selections.
Locate	Opens the "Locate" dialog box. It is used to search data records containing the entered string in the "Field Value" field.
Filter	Opens the "Filter" dialog box used for defining search filters. Refer to Browse and Selecting on page 5-2 .
Show/Hide Columns	Opens the "Selected Fields" dialog box. Using the move buttons, you can move the field columns to be displayed to the "Selected Fields" and remove the field columns that are not to be displayed.
Set Font	Opens the "Font" dialog box used to define the font for the table.

Operation Window



Note










Refer to the *Datacolor Process* documentation for more information.

General Parameters

Functions of the “Edit” menu

New	Prepares the window for specifying a new operation.
Delete	Deletes the currently displayed operation.
Duplicate	Duplicates the current operation. This function can be used for specifying a new operation with only small differences to the current operation.

Buttons

	First	Jumps to the first operation of the list.
	Previous	Jumps to the previous operation.
	Next	Jumps to the next operation.
	Last	Jumps to the last operation of the list.
	New	Prepares the window for specifying a new operation.
	Delete	Deletes the currently displayed operation.
	Apply	Saves the currently displayed data. The window is not closed.
	OK	Saves the currently displayed data and the window closes.
	Cancel	Closes the window without saving after confirmation.

Parameters of the General Tab

ID	Unique identification of the operation.
AuxID	Additional identification of the operation.
Name	Unique name of the operation.
Lab operation	If the box is checked the operation is used in the laboratory.
Prod. Operation	If the box is checked the operation is used for production.
Note	Field for additional notes.



Note

A context-sensitive menu for each input field is used for changing data.

Table Columns of the “Control Line” Tab

ID	Name	Value	Unit
1			REA
2	VOL	Volume	<Formula> l
3	D-TEMP	Dyeing Temperature	60 °C
4		Add Chemicals	.
5	MERNX	Meropan	1.5 g/l
6	BIA109	Biavin 109	0.3 g/l
7		Add Salt within 5 min	.
8	NaCl	Common Salt	<Formula> g/l
9	W-T	Waiting Time	10 min
10	REA	Reactive	<Formula>
11	W-T	Waiting Time	10 min
12	Soda	Soda	5 g/l
13	W-T	Waiting Time	10 min
14	NaOH38	NaOH Caustic 38° Bé	<Formula> ml/l
15	D-T	Dyeing Time	55 min
16	AcAc	Acetic Acid	1 ml/l

User : DCI created 14.04.1999, modified 31.03.2000 by DCI

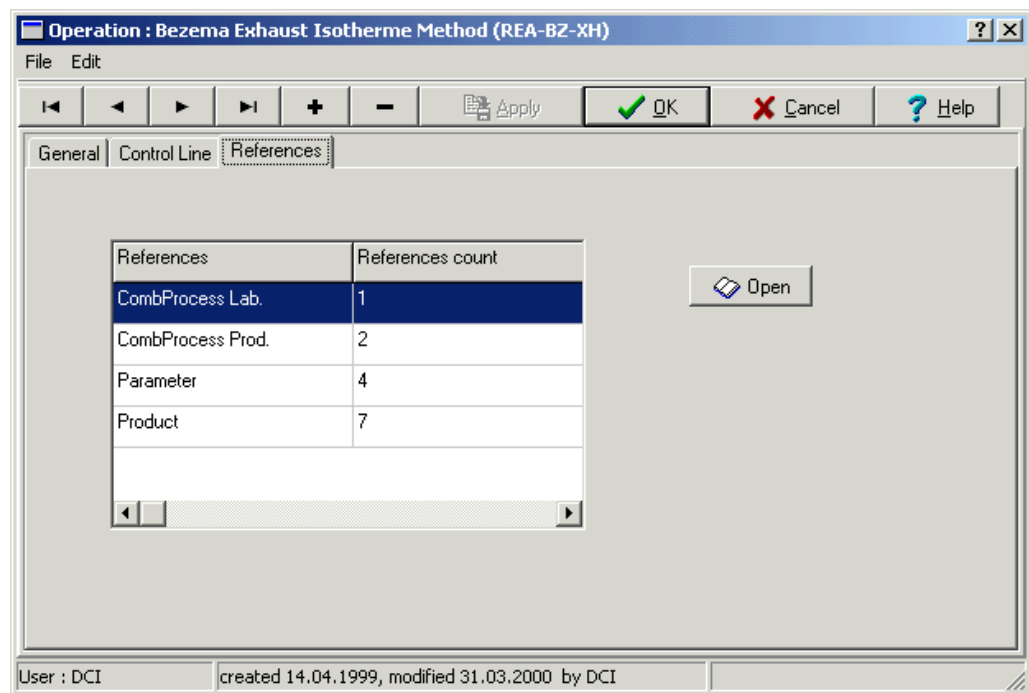
ID	Identification of the object.
Name	Name of the object.
Value	Numeric value. The button opens the “Formula Edit” window. Refer to Specifying Formulae on page 5-66 .
Unit	Unit belonging to the numeric value.



Note

A context-sensitive menu is used for specifying new control lines. Refer to [Specifying, Modifying, Deleting An Operation on page 5-64](#).

Parameters of the References Tab



References

Referenced objects.

References count

Number of objects.

Open

Opens the corresponding Datacolor Process window with the referenced objects.

Formula Edit Window

Refer to [Specifying Formulae on page 5-66](#).

Formula_Edit

X: ☒ Dye class ☐ Product Disperse ☐ Interpolate on X

Dye class: Disperse

	4x4	≤.1	≤.5	≤1	>1
≤5	4	7	10	13	
≤10	5	8	11	14	
≤20	6	9	12	15	
>20	6.5	9.5	12.5	15.5	

Y: ☒ Liquor ratio ☐ Pickup ☐ Interpolate on Y

Round to:

☐ Raise error if result < minimum
☐ Raise error if result > maximum

Parameters

Combobox Selection of dye class or product (X axis).

Interpolate on X/Y If checked, the linear interpolation of intermediate values is switched on.

Liquor Ratio/Pick Up Selection for the Y axis.

Decision Table: Set the range limits in the X and Y axis.
Set the absolute values in the corresponding table cells.

Round to Rounds to the entered number of units.

Example

"Round to" value is 5, unit is kg: The result is calculated in steps of 5 kg.

Raise error if result < minimum

If checked and the result is lower than the minimum value, an error message appears and the matching is stopped.
If not checked, the minimum value is set.

Raise error if result > maximum

If checked and the result is higher than the maximum value, an error message appears and the matching is stopped.
If not checked, the maximum value is set.

Context-sensitive menu

Add Row/Column	Adds a row/column after the selected one.
Delete Row/Column	Deletes the selected row/column.
Build Formula	Opens the "Expression Wizard" dialog box used for creating formulae.

Sample Input Dialog Box

The "Sample Input" dialog box is used for the manual input of samples based on reflectance values or color coordinates.

General parameters

Name	Unique name of the color sample.		
Description	Additional description of the color sample.		
Data Information		Input	Specular
	Reflectance	Manual	Included
	Transmission	Instrumental	Excluded

Date Date of the input.

Buttons

Insert/Save	Used to insert a new or save an existing sample.
Clear	Clears the input fields.
Save As	Used to save a modification.
Close	Closes the "Color Sample Calculator." If data is altered, the program requests the data be saved.

Spectral Tab

Sample Input

Name: Demo Data/Batches
BAT12

Description:

Date: Wed Mar 27 16:12:15 2002

Data information

Input: ☒ Reflectance ☐ Transmission
☒ Manual ☐ Instrumental

Specular: ☒ Included ☐ Excluded

Spectral | Coordinates

Data Input:
 1. Wavelength: 400
 Last Wavelength: 700
 Wavelength Interval: ☐ 5 ☒ 10 ☐ 20

Manual Data Entry

Graph: R[%] vs Lambda[nm]

	0	10	20	30	40	50	60	70	80	90
400	4.87	4.85	4.83	4.87	4.89	4.97	5.08	5.24	5.52	5.91
500	6.42	6.92	7.31	7.77	8.75	10.57	13.07	15.65	18.26	24.46
600	37.30	51.63	61.88	68.06	71.50	73.27	74.06	74.33	74.44	74.29
700	74.04									

Checksum: 905.01 ± Delta R: 0

Buttons: Clear, Save, Save As..., Close

Parameters

Data Input

First Wavelength	Starting wavelength for data input.
Last Wavelength	Ending wavelength for data input.
Wavelength Interval	Wavelength steps for data input.
Spectral Data Length	Number of values.

Graph

Graphical view of the result.

Context-sensitive Menu

Reset	Resets the last manual data entry.
Change Color	Opens the "Color" window twice to define the colors of the graph. The first definition is for the background, the second for the lines.
With Origin	If checked, the current graph is displayed with the coordinate zero point.
Grid	If checked, a grid is displayed.
Fonts	Opens the "Font" dialog box used to define the font for the graph.
Points	If checked, the interval points are displayed.
Log View	Logarithmic view.

More Opens the "Options" dialog box that allows changes to the graph display.

Visible Curves - Manual Data Entry

If checked, it is possible to alter the values in the table or the points of the curve manually. If finished, click "Calculate" to recalculate the curve.

Table

The results of the calculation are displayed.

Checksum Summary of all values.

+ Delta R Clicking the + button adds positive or negative values to the fields.

Coordinates Tab

Sample Input

Name: Demo Data/Batches
BAT12

Description:

Data information:

Input: ☒ Reflectance ☐ Transmission ☒ Manual ☐ Instrumental

Specular: ☒ Included ☐ Excluded

Date: Wed Mar 27 16:12:15 2002

Spectral Coordinates

Type: ☒ XYZ ☐ xyY ☐ CIE Lab ☐ CIE LCH

Coordinates:

X: 27.1597 Y: 18.4946 Z: 5.49808

Illuminant: D65 / 10

Buttons: Clear, Save, Save As..., Close

Parameters

Used for specifying recipes manually:

Type	XYZ: xyZ CIE Lab CIE LCH
Coordinates	Coordinate values. The result depends on type selection.
Illuminant	Name of the illuminant.
Color	Color display.

Colorant Set List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browse and Selecting on page 5-2](#).

ColorantSet_Name Unique colorant set name.

SUBSTRATEDELIVERY_NAME
Unique substrate delivery name.

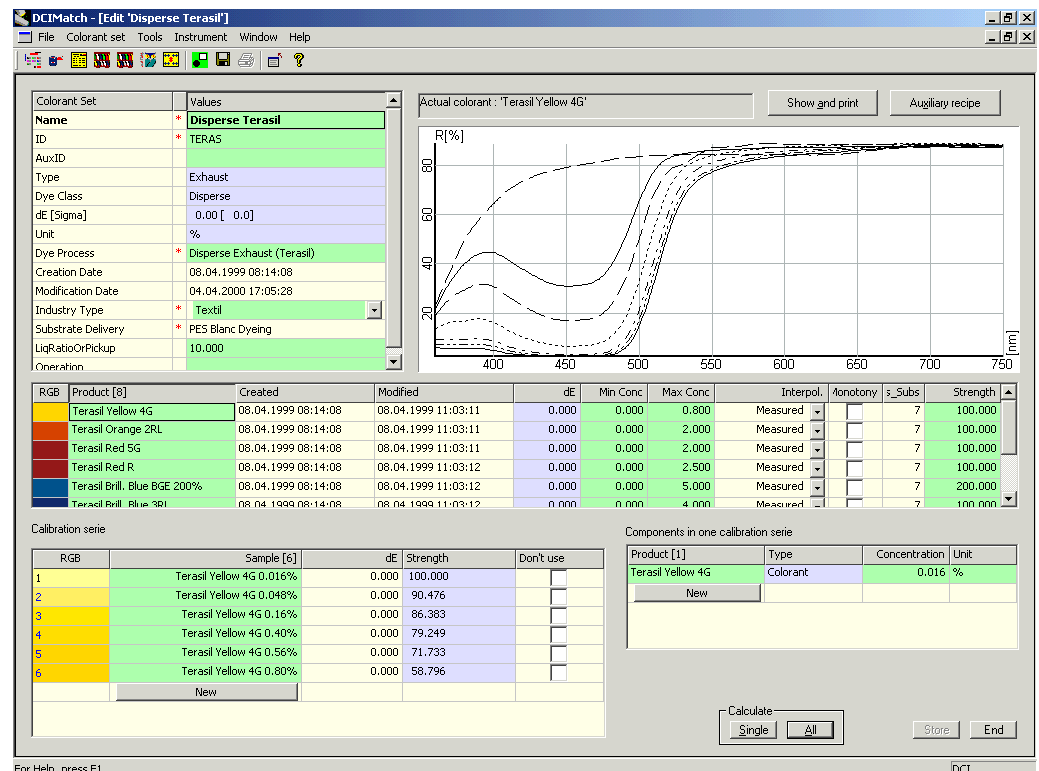
CREATIONDATE Date of creation.

A mouse double-click opens the "Colorant Set" tab of the "Colorant Set" window (Refer to [Specifying Colorant Sets on page 5-47](#)).

Functions of the "Colorant Set" and the context-sensitive menu

New	Opens the Colorant Set" window to specify a new colorant set of the selected type (submenu): Textile / Textile, alternate substrate / Textile Printing with Dyes (Refer to Specifying Colorant Sets on page 5-47 .) / Fiber Mixing . (If option „Datacolor BLEND“ is installed. Refer to Datacolor BLEND (Option) on page 5-134).
Copy	Opens the Colorant Set" window with a copy of the selected colorant set.
Edit	Opens the Colorant Set" window with the selected colorant set.
Show	Displays a print preview of the header or the complete colorant set (submenu).
Rename	Used to rename the currently selected colorant set.
Delete	Used to delete the currently selected colorant set.
Filter	Refer to Browse Filters on page 4-8 .
Reset Filter	Refer to Browse Filters on page 4-8 .
Users Browser Definition	Refer to Browser Customizing on page 4-6 .

Colorant Set Window



Color codes of the fields

Green

Values that can be modified.

Select the field and press the space bar.

Blue

Values calculated while opening the window.

Pale yellow

Values that cannot be modified.

Red *

Mandatory fields.

Buttons

Show and Print

Prints the complete set of data. The print-out is based on a print form.

Auxiliary Recipe

Saves the current list of auxiliaries. If an auxiliary recipe exists, the auxiliaries are added to each new colorant. The concentrations may be edited individually.

Calculate

Single

The selected colorant is recalculated.

All

All colorants of the colorant set are recalculated.

Store

Saves the colorant set.

End

Closes the window. If data has been changed, a dialog box with a save request appears.

Header Information

Name	Unique name of the colorant set.
ID	Unique identification of the colorant set.
AuxID	Additional identification of the colorant set.
Type	Dye process type "Continuous" or "Exhaust".
Dye Class	Dye class, e.g., Disperse.
dE (Sigma)	Delta E: color difference (sample - theory) and standard deviation dependent to the calibration method.
Unit	Unit used for the concentration.
Dye Process	Name of the dye process.
Creation Date	Date of creation.
Modification Date	Date of last modification.
Industry Type	Type of the dyeing process.
Substrate Delivery	Name of the currently used substrate.
Liq. Ratio or Pickup	Liquor ratio or pickup value.
Operation	Name of the operation.

Graphical Display

Graphical view of the calibration results: Values and units of the axis are displayed according to the selected analysis.

Context-sensitive menus

Reset	Resets the "Zoom" and "With Origin" settings.
Change Color	Refer to Customizing Graphs on page 4-30 .
Change Printer Color	Refer to Customizing Graphs on page 4-30 .
With Origin	If checked, the current graph is displayed with the coordinate zero point.
Grid	If checked, a grid is displayed.
Fonts	Opens the "Font" dialog box used to define the font for the graph. Useful for "R% and K/S vs. Wavelength" graph.
Points	If checked, the measurement points are displayed.
Log View	The graph is based on logarithmic values.
More	Refer to Customizing Graphs on page 4-30 .
Visible Curves	List of all curves. The curves may be selected or the selection can be canceled using a mouse click.

Clicking on a curve:

Select	Selects a curve. The measurement points are displayed with a greater diameter.
Hide	Hides the selected curve.
Do not use this point/Use this point (not used for colorant set program)	The selected point is either used or not used for calibration. The point is displayed in a red color if it is not used.
Restore all points	Resets all points. Only used for "Reflectance of Calibration Samples" and "Absorptions of Calibration Samples" graphs.

Colorant Table

Product	Unique name of the product. The header contains the number of listed products.
Created	Date and time of creation.
Modified	Date and time of the last modification.
dE	Delta E: color difference between current samples and the theoretical values. A red background indicates that there are no selected or measured calibration samples.
Min. Conc.	Specification of the minimum concentration.
Max Conc.	Specification of the maximum concentration.
Interpol.	Calibration method: Measured, Smoothed, Automatic.
Monotony	Check to set the „monotony“ interpolation.
No_samples_Sub.	Number of calibration samples plus substrate.
Strength	Product strength in percents.
New (button)	Click to add a new product.

Functions of the context-sensitive menu:

R. vs Wavelength	Displays the reflectance in relation to the wavelength.
K. vs Wavelength	Displays the absorption (K/S) in relation to the wavelength.
K vs Concentration at Maximum Value	Displays the absorption (K/S) in relation to the concentration.
K vs Concentration at Maximum Value	Logarithmically displays the absorption in relation to the dye-stuff concentration (K/S versus concentration.)
Fix your Wavelength	Opens a dialog box used to select the wavelength for the following absorptions curves.
Show Tables	Displays the numeric tables (K table and S table if the two constant method is used.).
Show/Edit Parameters	Displays the parameter values.

KS: Relative Strength	Displays the strength in relation to the dye concentration for selected dyes (in the "Colorant Set" tab). = (strength at first calibration sample) * 100 / (strength at calibration sample)
KS: Absolute Strength	Displays (in the "Colorant Set" tab) the absolute strength for selected dyes. Strength is the summary of norm absorptions of the sample.
Add Colorant	Opens the „Create Calibration Series“ dialog box. Refer to Specifying Colorant Sets on page 5-47 .
Move Colorant	Refer to Moving Colorants on page 5-51 .
Delete Colorant	Removes the selected colorant from the colorant set after confirmation. Refer to Remove A Dyestuff from A Colorant Set on page 5-54 .
Compare with another Colorant	Opens the „Compare Colorants“ dialog box. Refer to Comparing Colorants on page 5-59 .
Use two Graphs	Splits and resets the graphical display.

Calibration Series Table

Results of the calibration series. The first column displays the color of each sample.	
Sample	Unique name of the sample. The header contains the number of listed samples.
dE	Delta E: color difference dependent to the calibration method.
Strength	Relative strength in percents.
Do not use	If checked, the sample is not used for the calculation.

Context-sensitive menu

Re-measure Calibration Sample	Refer to Calibration and Measurement on page 5-10 .
New Calibration Sample	Refer to Specifying Colorants and Calibration Samples on page 5-50 .
Move Calibration Sample	Refer to Moving Colorants on page 5-51 .
Delete Calibration Sample	Removes a calibration sample from the colorant set.
New (button)	Click to add a new calibration sample.

Components in One Calibration Series (Table)

Product	Unique name of the product. The header contains the number of listed products.
Type	Product type.
Concentration	Numeric value of the concentration.
Unit	Unit used for the concentration.
New (button)	Click to add a new product.

Context-sensitive menu

New Calibration Component	Is used to add a product.
Move Calibration Component	Is used to change the order of the products.
Delete Calibration Component	Removes the selected product from the colorant set.

Create Calibration Series Dialog Box

Dialog box for specifying new calibration samples:

Refer to [Specifying Colorants and Calibration Samples on page 5-50](#).

Create calibration serie

Product: [All Data] ... [Terasil Yellow 4G] ... [New] [Modify]

Type of sample input:
☒ Measurements ☐ From database

Measure with inputs of concentration values

Product	# Levels	Concentrations (separated by blank or comma)
Terasil Yellow 4G	6	0.016 0.048 0.16 0.4 0.56 0.8

Prefix: Terasil Yellow 4G ☐ Multiple [Measure]

Sample: Terasil Yellow 4G [0.800] 6 / 6

New calibration's serie

RGB	Calibration Sample	Conc.	Strength
	Terasil Yellow 4G [0.400]	0.400	5.
	Terasil Yellow 4G [0.560]	0.560	6.
	Terasil Yellow 4G [0.800]	0.800	7.

Relative strength [%]

Strength [K/S]

[Reset] [Accept] [Cancel]

Parameters

- | | |
|-----------------|---|
| Product | Selection of the product. |
| New (button) | Opens the „Product“ property box to insert a new product.
Refer to Specifying A New Product on page 5-35 . |
| Modify (button) | Opens the „Product Edition“ dialog box used to modify the selected product. |

Product	Values
Name	* Bezaktiv Blue S-GN 150%
ID	* BBU SGN
AuxID	BBU SGN
Creation Date	* 08.04.1999 08:11:57
Modification Date	* 04.04.2000 10:12:58
User	DCI
Product Supplier ID	* Bezema AG
Product Type	Colorant
Product Form	Solid
Specific Weight	0.000
Note	
Actual Price	42.000
Actual Supplied Conc	* 150.000
Actual Lab Strength	* 1.000
Default delivery	

OK Cancel

Fields with a green background can be edited.

Type of Sample Input Selects the source of the samples.

Measure with Input of Concentration Values (Measurements)

Table with the samples to be measured. Concentrations must be entered (or corrected) before the measurements. Prefix and sample name can be edited.

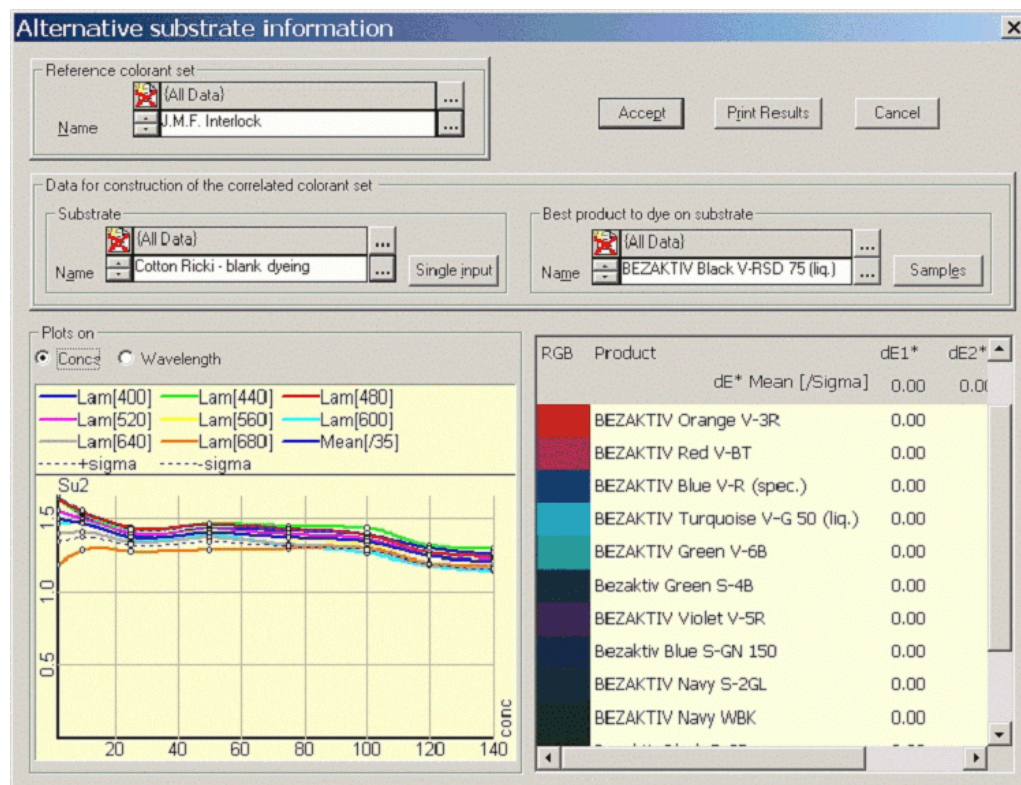
Used Stored Samples (From database) Selection of samples.

New Calibration's Series Table with the measured or selected sample(s).

Reset (button) Removes all samples from the „New Calibration's Series“ table.

Accept (button) Accepts all samples from the „New Calibration's Series“ table.

Alternate Substrate Information Dialog Box



Reference Colorant Set Selection of the existing colorant set used for base of calculation.

Accept (button) Click **Accept** if the result is OK.

Substrate Selection of the new substrate.

Single Input (button) Used to select or specify a quality.

Best Product ... Selection of the dyestuff. The best dyestuff is selected automatically.

Sample (button) Used to measure or select the calibration samples. Refer to [Specifying Colorants and Calibration Samples on page 5-50](#).

Plots on Graph of the results.

Table Results of the calculation.

Illuminant List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Illuminant Name	Unique name of the Illuminant.
Observer Name	Degree observer. Values: 10 or 2.
Creation Date	Date of creation.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Sample List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Name	Unique name of the sample.
RGB Color	Display of the color.
Sample Id.	Unique identification of the sample.
Modification Date	Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Color Type List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Color Type Name	Unique name of the color type.
RGB Color	Display of the color.
Color Type Id.	Unique identification of the sample.
Name	Name of the color Type.
Modification Date	Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Tolerance List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Name	Unique name of the tolerance definition.
Tolerance Id.	Unique identification of the tolerance definition.
Modification Date	Date of last modification.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Parameter List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Parameter Name	Unique name of the parameter.
Parameter Id.	Unique identification of the parameter.
Param. Unit	Related Unit.
Modification Date	Date of last modification.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Fiber List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Fiber Name	Unique name of the fiber.
Fiber Id.	Unique identification of the fiber.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Fiber Group List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Fiber Group Name Unique name of the fiber group.

Modification Date Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Substrate Delivery List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Substrate Delivery Name Unique name of the delivered substrate.

Substrate Delivery Id Unique Identification of the delivered substrate.

Quality Name Unique name of the quality/style.

Modification Date Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Quality/Style List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Quality Name Unique name of the quality/style.

Quality Id. Unique identification of the quality/style.

Affinity Name Unique name of the affinity.

Affinity Id. Unique identification of the affinity.

Modification Date Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Affinity List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Affinity Name	Unique name of the affinity.
Affinity Id.	Unique identification of the affinity.
Fiber Group Name	Unique name of the fiber group.
Modification Date	Date of last modification.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Dye Process List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Dye Process Name	Unique name of the dye process.
Dye Process Id.	Unique identification of the dye process.
Dye Class Name	Unique name of the dye class.
Dye Class Id.	Unique identification of the dye class.
Modification Date	Date of last modification.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Dyestuff Class List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Dyestuff Class Name	Unique identification of the dye class.
Dyestuff Class Id.	Unique name of the dye class.
Modification Date	Date of last modification.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Dyestuff List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Product Name	Unique name of the product.
Product Id.	Unique identification of the product.
Product Supplier Name	Unique name of the product supplier.
ACTUAL_PRICE	Current price.
ACTUAL_CONC	Currently supplied concentration.
Modification Date	Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Auxiliary List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Product Name	Unique name of the product.
Product Id.	Unique identification of the product.
Product Supplier Name	Unique identification of the product supplier.
ACTUAL_PRICE	Current price.
ACTUAL_CONC	Currently supplied concentration.
Modification Date	Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Product List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu.

Product Name	Name of the product.
Product ID	Unique identification of the product.
Product Supplier Name	Name of the product supplier.
ACTUEL_PRICE	Actual price of the product.
ACTUAL_CONC	Current concentration of the product.
Modification Date	Country of the contact person.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Supplier List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu.

Product Supplier	Unique name of the product supplier.
Contact Person	Name of the contact person.
Phone Number	Phone Number of the contact person.
Fax Number	Fax Number of the contact person.
Address	Address of the contact person.
City	City of the contact person.
Country	Country of the contact person.

Functions of the "Basic Data" and the context-sensitive menu

Refer to [Functions of the "Basic Data" Menu on page 7-10](#).

Customer List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Specifying, Modifying or Deleting Customers on page 5-39](#).

Customer Name	Unique name of the customer.
Contact Person	Name of the contact person.
Phone Number	Phone Number of the contact person.
Fax Number	Fax Number of the contact person.
Address	Address of the contact person.
City	City of the contact person.
Country	Country of the contact person.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

Recipe List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the “Tools” menu. Refer to [Browser Customizing on page 4-6](#).

Recipe Name	Recipe name.
Recipe Id.	Unique identification of the recipe.
Batch Id.	Unique identification of the batch.
Status	Recipe status. Values: -1 Recipe Manual Input in Datacolor Process 1 Ready for calculation 2 No solution 4 Calculated 5 Manually modified or inserted 6 Modified by dyestuff exchange
Modification Date	Date of last modification.
Quality Name	Quality/style name.
Combined Process Name	Unique identification of the combined process.

Functions of the “Recipe” and the context-sensitive menu

History	Displays the history of recipe generation and corrections.
Match	Opens the “Match” dialog box. Refer to Match Dialog Box on page 7-116 .
Match in Background	Used if several standards are defined for calculation. (Is only enabled if there are recipes of status 2.)
ReMatch	Re-calculation of a recipe.

Pass Fail and Laboratory Correction	Opens the "Correct or Approve Your Recipe" dialog box. Refer to Laboratory Correction on page 5-92 .
Pass Fail and Production Correction	Opens the "Production Correction" dialog box. Refer to Production Correction on page 5-96 .
Fast Correction	Opens the "Fast Correction" dialog box. Refer to Fast Correction on page 5-99 .
Search Recipes	Opens the "Search and Correct" dialog box used for searching recipes. Refer to Search and Correct An Existing Recipe for A New Standard on page 5-103 .
Search Results	Lists the current result list.
Lab Table Display	Displays the matching results of the selected recipe.
Lab Dye Lot	Opens the "Show Full Recipe" dialog box used for displaying, printing, and dispensing recipe data.
Edit	Opens the "Edit Recipe" dialog box for altering color type and combined process of a recipe. Refer to Modifying Recipes on page 5-79 .
Recipe List	Prints the recipe list of all selected recipes.
Change Dyestuff in Recipes	Opens the "Change one Product in Recipe" dialog box used for changing the product. Refer to Replace Dyestuffs in Recipes on page 5-82 .
User's Browser Definition	Opens the "Browse Columns for Explorer" dialog box. Refer to Browser Customizing on page 4-6 .
Rename	Used to rename a selected recipe.
Delete	Deletes the selected recipe after confirmation.
Filter	Refer to Browse Filters on page 4-8 .
Reset Filter	Resets the selected filter.

Combined Process List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the menu “Tools.” Refer to [Browser Customizing on page 4-6](#).

Combined Process Name Unique name of the combined process.

Combined Process Id. Unique identification of the combined process.

Modification Date Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [“Functions of the “Basic Data” Menu on page 7-10”](#).

Operation List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the “User’s Browser Definition” function of the menu “Tools.” Refer to [Browser Customizing on page 4-6](#).

Operation Name Operation name. A mouse double-click opens the “Operation” window. Refer to [Specifying Combined Processes on page 5-61](#).

Operation Id. Unique identification of the operation.

Modification Date Date of last modification.

Functions of the “Basic Data” and the context-sensitive menu

Refer to [Functions of the “Basic Data” Menu on page 7-10](#).

SmartMatch Result List Window

Table columns

The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

SM Result AK	Identification of the SmartMatch point.
DE__KS	Color difference dependent to the calibration method.
DE_SM	Color difference of the recalculated SmartMatch point.
Modification Date	Date of last modification.
Quality Name	Unique name of the quality/style.
List Products Name	List of dyestuffs used for the SmartMatch point.
Colorant Set Name	Unique name of the colorant set.

Functions of the "Smart" and the context-sensitive menu

Open Population by SM ID

Opens the „Open population for given ID“ dialog box. Type the ID and click **OK** to open the „Current Population“ dialog box. Refer to [Current Population Dialog Box on page 7-125](#).

Show Population of Marked SmartMatch Point

Opens the „Current Population“ dialog box. Refer to [Current Population Dialog Box on page 7-125](#). If a group is selected, a message appears with the group ID. You can open the group using the „Open Population by SM-Id“ function and this ID.

Release Points from Group

The group of SmartMatch points is removed and the single points are saved. Refer to [Release SmartMatch Points from the Group on page 5-88](#).

Automatic SmartMatch Housekeeping

Refer to [Automatic SmartMatch Maintenance on page 5-86](#).

Save Batch as Sample

Opens a dialog box to save a sample using a SmartMatch point or group. Refer to [Saving A Batch as A Sample on page 5-89](#).

User's Browser Definition

Opens the "Browse Columns for Explorer" dialog box. Refer to [Browser Customizing on page 4-6](#).

Rename

Used to rename a selected recipe.

Delete

Deletes the selected recipe after confirmation.

Filter

Refer to [Browse Filters on page 4-8](#).

Reset Filter

Resets the selected filter.

Correct or Approve Your Recipe Dialog Box

Correct or approve your recipe

Name:

Trial:

Product name	Concs.	Unit
Fiber [CO] 100%		
Levafix Yellow E-3RL	0.6478	g/l
Levafix Brown E-2R	0.3468	g/l
Levafix Brilliant Blue E-B	0.3063	g/l

Information on your last batches Color difference is CMC

Fiber(s)	[%]	Batch	Date	del E	del L	del C	del H

Parameters

Name	Name of the selected recipe.
Trial	Selection of the trial to be corrected or approved.
Table:	List of products and concentrations used for the recipe.
Information table:	Color differences of the batches.

Buttons

Pass Fail and Correction	Opens the "Laboratory Correction" dialog box used for laboratory corrections.
Approve	Approves the selected recipe.

Laboratory Correction Dialog Box

Lab Correction for "V0002 ELEFANT - 040400 - 1105"

Trial Number: 1/1 Standard: V0002 ELEFANT

Dyeset: Remazol SPB (Silicate) Part [%]: 100

Batch & color difference for "CieLab Default(D65)"

dE* 2.12 dL* 2.04 dC* 0.55 dH* -0.20 da* -0.05 db* -0.59

Batch refused

☐ SM-Analyse ☒ Total batch

Dyestuff		Concentration [g/l]		
Shown : 17 selected : 3		g/l	Min.(100%)	Max.(100%)
1	Remazol Yellow R Gran.	0.9309		80
2	Remazol Red 3B	2.8531		50
3	Remazol Brilliant Blue BB gran. 133%	2.5747		20
4	Remazol Brilliant Yellow 4GL Gran.			60
5	Remazol Yellow GR			80
6	Remazol Golden Yellow RNL gran. 150%			50
7	Remazol Brilliant Red F3B Gran.			80
8	Remazol Brilliant Red 3BS Gran.			80
9	Remazol Red RB gran. 133%			50
10	Remazol Brilliant Blue R Gran. 133%			80

Buttons: Approve, Save, Laboratory, Reset batch, ColorTools..., Evaluate, Print, ASCII, Cancel

Parameters

General parameters

Trial Number Trial number of the selected recipe.

Standard Measured color to be dyed (target color).

Buttons

Approve Approves the selected recipe (trial).

Save Saves manually entered modifications.

Laboratory Opens the "Recipe Correction" dialog box.

Reset Batch Resets the batch data.

Datacolor Tools Opens the "Datacolor Tools" application for color quality control. Standard and batch are transferred automatically from the Datacolor MATCH^{Textile} database to the Datacolor Tools database.

Evaluate **Print:** Displays the colorimetric data in a print preview.
ASCII: Creates a text file using a specified form. Refer to [ASCII Output \(Option\) on page 4-20.](#)

Cancel Closes the dialog box without saving. **Data that not has been saved will be lost.**

Parameters of the „Colorant Set“ tab

Colorant set	Protected. A „Colorant set“ tab is displayed for each colorant set. The colorant set name and the part of the corresponding fibre (in %) are displayed on the top.
Batch and ...	Selection of the measured sample dyed according to the recipe to be corrected.
Information line:	Differences (dE and dL) between standard, batch, and “Dif. Formula”. On the left, a graphical view of the differences is displayed. If the differences are out of tolerance, the message „Batch refused“ appears and the traffic light is red.
SM Analysis	SmartMatch analysis (graphical display and SmartMatch result table). Color differences (standard/batch) according to the formula used for recipe calculation.
Total batch	Check the box if the batch is measured with all fibres.
Table:	Selection of dyes. Refer to Preliminary Work on page 5-69 , section Selecting dyestuffs for matching on page 5-71 .

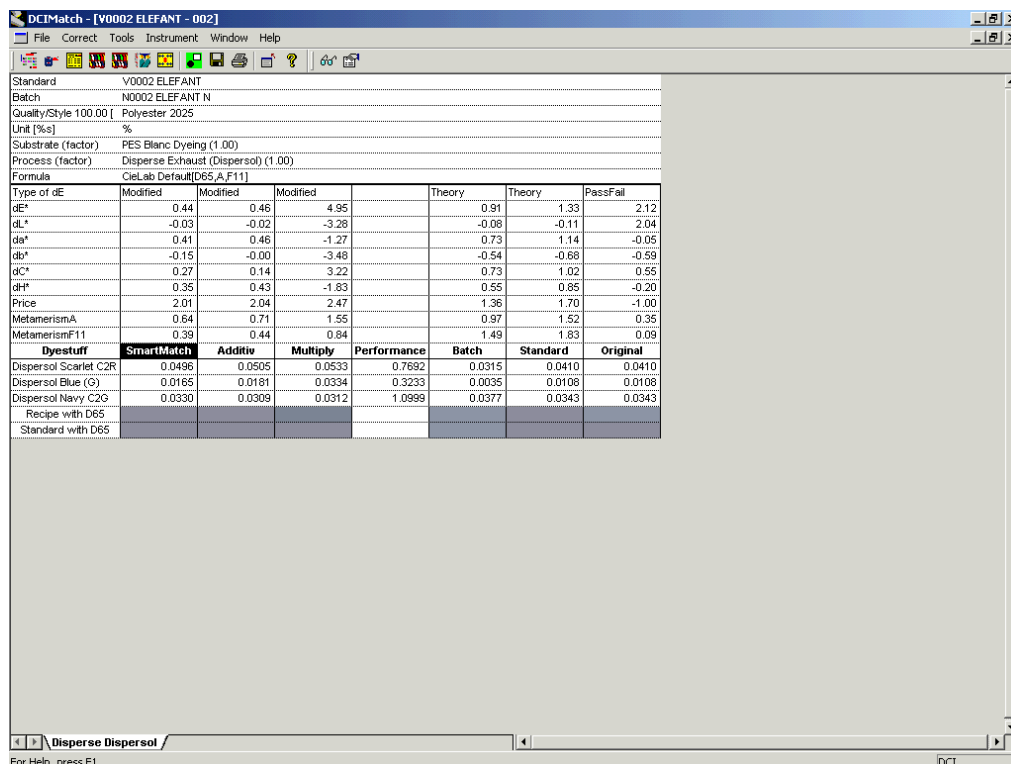
**Note**

Minimum and maximum concentrations can be changed for the correction. This can result in better corrections if more than 4 or 5 colorants are used by the recipe.

Settings tab

The settings cannot be modified.

Laboratory Correction Table



The screenshot shows the DCIMatch software window titled "DCIMatch - [V0002 ELEFANT - 002]". The window contains a menu bar (File, Correct, Tools, Instrument, Window, Help) and a toolbar. Below the menu bar, there are fields for Standard (V0002 ELEFANT), Batch (N0002 ELEFANT N), Quality/Style (100.00), Unit (%), Substrate (factor) (PES Blanc Dyeing (1.00)), Process (factor) (Disperse Exhaust (Dispersol) (1.00)), and Formula (CieLab Default[D65_A_F11]).

Type of dE	Modified	Modified	Modified	Theory	Theory	Pass/Fail
dE*	0.44	0.46	4.95	0.91	1.33	2.12
dL*	-0.03	-0.02	-3.28	-0.08	-0.11	2.04
da*	0.41	0.46	-1.27	0.73	1.14	-0.05
db*	-0.15	-0.00	-3.48	-0.54	-0.68	-0.59
dc*	0.27	0.14	3.22	0.73	1.02	0.55
dH*	0.35	0.43	-1.83	0.55	0.85	-0.20
Price	2.01	2.04	2.47	1.36	1.70	-1.00
MetamerismA	0.64	0.71	1.55	0.97	1.52	0.35
MetamerismF11	0.39	0.44	0.84	1.49	1.83	0.09

Dyestuff	SmartMatch	Additive	Multiply	Performance	Batch	Standard	Original
Dispersol Scarlet C2R	0.0496	0.0505	0.0533	0.7692	0.0315	0.0410	0.0410
Dispersol Blue (G)	0.0165	0.0181	0.0334	0.3233	0.0035	0.0108	0.0108
Dispersol Navy C2G	0.0330	0.0309	0.0312	1.0999	0.0377	0.0343	0.0343
Recipe with D65							
Standard with D65							

At the bottom of the window, there is a status bar with the text "Disperse Dispersol /" and "For Help, press F1".

Table columns

Dyestuff	Used dyestuffs.
SmartMatch	Recipe corrected using the SmartMatch algorithm.
Additive	Recipe corrected using the additive algorithm: standard conc. + original conc. - batch conc.
Multiply	Recipe corrected using the multiplicative algorithm: standard conc. * performance factor
Performance	Relation between batch and original data.
Batch	Data of the measured sample dyed according to the recipe to be corrected. (Recalculated batch recipe)
Standard	Data of the measured sample (color type) to be dyed (target color). (Recalculated recipe for the standard)
Original	Pass Fail: Differences to the original recipe (from the data-base).



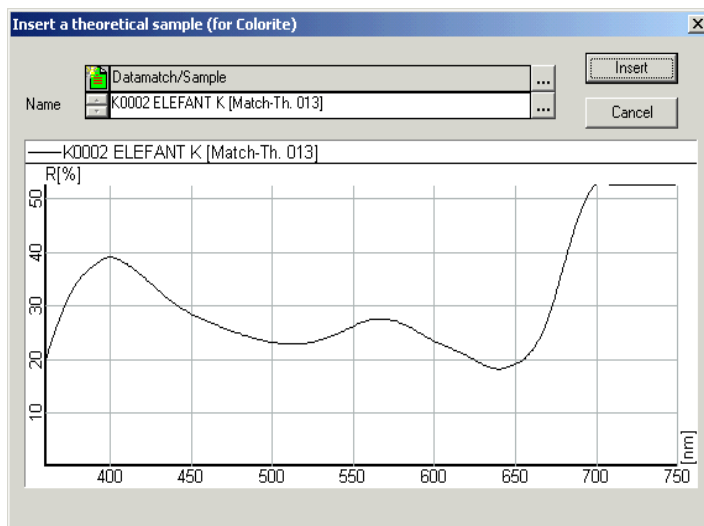
Note

The re-calculation of the recipe for the standard is always done without SmartMatch. If the original recipe has been calculated using SmartMatch, it is different to the standard recipe.

Refer to [Matching on page 5-74](#), section [Review \(recipe table\) on page 5-76](#) for more information about the parameters.

Functions of the „Correct“ and the context-sensitive menu

Evaluate Print	Displays the colorimetric data in a print preview.
Evaluate ASCII	Creates a text file using a specified form. Refer to ASCII Output (Option) on page 4-20 .
Theoretical reflectance	Opens the „Insert a Theoretical Sample“ dialog box.

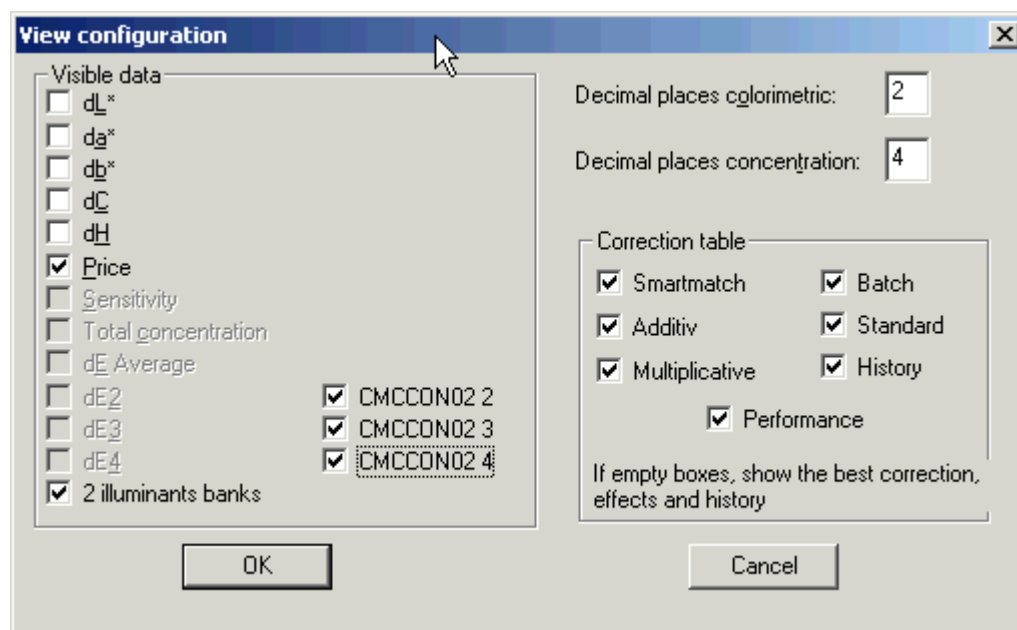


Refer to [Insert A Theoretical Sample Dialog Box on page 7-123](#).

View configuration	Opens the „View Configuration“ dialog box. Refer to View Configuration Dialog Box (Laboratory Correction Table) on page 7-100 .
Modify	Used for changing recipe manually.
Round	Rounds the results according to the specification in the „View“ tab of the „options“ dialog box.
Modify Graphical	Opens the „Manual Lab Correction“ dialog box. Refer to Manual Graphical Correction on page 5-101 .

View Configuration Dialog Box (Laboratory Correction Table)

Used to configure the laboratory correction table.



Production Correction Dialog Box

General parameters

Standard Measured color to be dyed (target color).

Buttons

- Production** Used for calculating the recipe to correct the dyed production. Opens the "Production Correction" dialog box.
- Reset Batch** Resets the batch data to original data if modified manually.
- Match Batch** The application assumes that exactly the calculated recipe has been used to dye the batch. A correction therefore only makes sense if the color difference is not too large ($dE \leq 5$). If the color difference is larger, something has gone wrong during dyeing. In this case, the "Match Batch" calculates a new recipe using the dyestuffs of the original recipe. The new recipe becomes the base for correction and no SmartMatch point is saved.
- Match Standard** Calculates a new recipe for the standard.
- Datacolor Tools** Opens the "Datacolor Tools" application for color quality control. Standard and batch are transferred automatically from the Datacolor MATCH^{Textile} database to the Datacolor Tools desktop.
- Evaluate** **Print:** Displays the colorimetric data in a print preview.
ASCII: Creates a text file using a specified form. Refer to [ASCII Output \(Option\) on page 4-20](#).

Cancel Closes the dialog box without saving. **Data that not has been saved will be lost.**

Parameters of the „Colorant Set“ tab

Colorant Set **Protected.** A „Colorant Set“ tab is displayed for each colorant set. The colorant set name and the part of the corresponding fibre (in %) are displayed on the top.

Batch and ... Selection of the measured sample dyed according to the recipe to be corrected.

Information line: Differences (dE and dL) between standard, batch, and “Dif. Formula”.
On the left, a graphical view of the differences is displayed. If the differences are out of tolerance, the message „Batch refused“ appears and the traffic light is red.

First Correction Check the box if it is the first correction of the recipe and a SmartMatch point should be saved.

Total Batch Check the box if the batch is measured with all fibres.

Table: Selection of dyes. Refer to [Preliminary Work on page 5-69](#), section [Selecting dyestuffs for matching on page 5-71](#).

Lab Graph tab

Refer to [Lab Graph Tab on page 7-119](#).

Settings tab

Refer to [Match Dialog Box on page 7-116](#), section [Parameters on page 7-120](#).

Production Correction Table

Production correction for 'V0002 ELEFANT - 002'

Standard: V0002 ELEFANT

Batch: N0002 ELEFANT N

Smartmatch in production:
 Insert: (All Data) ...
 Machine: ...
☐ Total batch ☐ First dyeing

Fibre

Add new dyestuff(s)
 User selected: ... Best add Best positive add Reset

Dyestuff	Recipe	+ Amount		Effect	Rel. %	New rec.[%]
Dispersol Scarlet C2R	4.101	0.858	g	0.77	20.91	0.04958
Dispersol Blue (G)	1.080	0.568	g	0.32	52.58	0.01648
Dispersol Navy C2G	3.429	-0.127	g	1.10	-3.69	0.03302
Total	8.610	1.29888			15.09	

BatchSize: 10 kg Bath: 100 l Liquor ratio: 10

CieLab Default[D65,...]

Illuminant	delE/MI	New delE/MI	delL/ML	delC/MC	delH/MH
dE D65	2.12	0.44	-0.03	0.27	0.35
Met A	0.35	0.64	-0.03	0.42	0.48
Met F11	0.09	0.39	-0.12	0.05	0.37

Evaluate: Print ASCII Computer add: Optimal dE Min.Add./dE Manual Cor. Min.Add./dH Compute to limit >= 0 dE Limit

User add: Scale back by 0 %

Graph: R[%] vs [nm] (400-700 nm)

Buttons: Cancel Show Print ASCII Close

Standard Measured color to be dyed (target color).

Batch Measured sample dyed according to the recipe to be corrected.

SmartMatch in Production:

Used to save a production SmartMatch point.

Total Batch Check the box if the batch is measured with all fibres.

First Dyeing Check the box if it is the first correction of the recipe and a SmartMatch point should be saved. This function is only enabled if checked.

Fibre tab

Add New Dyestuff(s)

User selected Selection of unused dyestuffs (of the same colorant set) to be added.

Best Add Evaluates and adds the best dyestuff according to the colorimetric results.

Best Positive Add Evaluates and adds the best dyestuff to correct negative amounts. This function is only available if the recipe is calculated with additional illuminants and the initial result has negative add amounts.

Reset Removes the added dyestuffs.

Recipe table:

1st column Color display.

Dyestuff	Names of the dyestuffs.
Recipe	Values of the original recipe. (Absolute amount of dye lot)
+ Amount	Values of the correction.
Effect	Effect factor for the recipe calculation (performance between original and batch recipe).
Rel. %	Relative correction for the single dyestuff (Addition in %).
New Recipe	Values of the new, corrected recipe (without additions). A print out is not possible.

Batch Size, Bath, Liquor Ration

If you have altered a value, press the Tab key to recalculate the correction.

Use Pickup *For continuous dyeing.* If it is checked, the entered pickup value is taken into account. "Amount" and "+ Amount" are adjusted.

The table and the graph show the colorimetric data.

Evaluate (buttons) **Print:** Displays the colorimetric data in a print preview.
ASCII: Creates a text file using a specified form. Refer to [ASCII Output \(Option\) on page 4-20](#).

User Add (scale back by) Used to reduce the "+ Amount" by value in %.

Computer Add: *Used for absolute tolerance specification.*

Optimal dE Optimizes dE only with positive adds. Removes all negative adds.

Min. Add. / dE (button) Recalculates the correction using the dE limit given in the "Compute To Limit" field. dE must be higher than the dE limit.

Min. Add. / dH (button) Recalculates the correction using the dH limit given in the "Compute To Limit" field.

Buttons

Cancel Closes the dialog box without saving. ***Data that not has been saved will lost.***

Show Opens a print preview.

Print Prints the correction data.

ASCII Export Saves the correction data to a file in the ASCII format. Refer to [ASCII Output \(Option\) on page 4-20](#).

Close Closes the "Production Correction" dialog box.

Fast Correction Recipe Input Dialog Box

General parameters

Standard Selected color to be dyed (target color).

Buttons

Save Saves the correction data.

Laboratory Used for recalculating the recipe. Opens the "Recipe Correction" dialog box.

Production Used for calculating the recipe to correct the dyed production. Opens the "Production Correction" dialog box.

Match Batch The application assumes that exactly the calculated recipe has been used to dye the batch. A correction therefore only makes sense if the color difference is not too large ($dE \leq 5$). If the color difference is larger, something has gone wrong during dyeing. In this case, the "Match Batch" calculates a new recipe using the dyestuffs of the original recipe. The new recipe becomes the base for correction and a SmartMatch point is not saved.

Match Standard Calculates a new recipe for the standard.

Datacolor Tools Opens the "Datacolor Tools" application for color quality control. Standard and batch are transferred automatically from the Datacolor MATCH^{Textile} database to the Datacolor Tools database.

Evaluate **Print:** Displays the colorimetric data in a print preview.
ASCII: Creates a text file using a specified form. Refer to [ASCII Output \(Option\) on page 4-20](#).

Cancel Closes the dialog box without saving. **Data that not has been saved will be lost.**

Process Data for Matching tab

Fast correction for "V0006 PISTACHE - 001"

Standard
V0006 PISTACHE

Process Data for matching | Dyeset | Lab-Graphic | Settings

Quality/Style
Datamatch
Q17642 PES/CO 70/30

Combined Process
Disperse Exhaust (Terasil)_Reactive exhaust

Affinity
Q17642 PES/CO 70/30

Substrate delivery [4 elements]
New

Possible dyeset(s)
Q17642 PES/CO 70/30-1

[%]	Fiber(s)	Dyeset	Process	E.Substra	Pure Substrate
70	PES	Disperse Dispersol	1.00	1.00	Dacron1 :001

Used dyeset(s)

30	CO	Reactive Exhaust	1.00	1.00	Cotton knitted blanc. n. merc
70	PES	Disperse Terasil	1.00	1.00	PES Blanc Dyeing

Standard
Datamatch/Sample
V0006 PISTACHE

Save
Laboratory
Production...
Match batch
Match standard
ColorTools...
Evaluate
Print
ASCII
Cancel

Parameters

Quality/Style	Field for quality/style specification.
Combined Process	Field for combined process specification.
Affinity	Protected. Display of the affinity.
Substrate Delivery	Selection of a specific substrate delivery. New button: Used to measure a new substrate delivery.
Possible Colorant Set(s)	Selection table with the assigned colorant sets. Select a colorant set using a double-click on the name cell.
Used Colorant Set(s)	Table with the selected colorant sets. Remove a colorant set using a double-click on the name cell.
Standard	Selection of color to be dyed (target color).

Colorant Set tab

Fast correction for "V0006 PISTACHE - 001"

Standard: V0006 PISTACHE

Process Data for matching: Dyeset Lab-Graphic Settings

Dyeset Reactive Exhaust Part [%] 30 ≤ 1/2 ≥ Batchsize Amount input

Batch & color difference for "CieLab Default[D65]"

{All Data} N0006 PISTACHE N

dE* 0.79 dL* 0.72 dC* 0.30 dH* -0.08 da* -0.03 db* 0.31

Batch accepted

Smartmatch's point: Lab Production

dE/Mi theory to standard 8.83/5.33

dE/Mi theory to batch 0.79/7.90

Selection:

0/1	Dyestuff	Concentration [%]			
		%	Min.(100%)	Max.(100%)	Relation
1	Bezaktiv Yellow S-3R 150%	0.0777		6.4	
2	Bezaktiv Red S-3B 150%	0.0000		6.4	
3	Bezaktiv Blue S-GN 150%	0.0339		6.4	
4	Bezaktiv Yellow S-8G			6.4	
	Bezaktiv Green S-4B			6.4	
	Bezaktiv Navy Blue S-BL			6.4	
	Bezaktiv Black S-GR			12.8	

Buttons: Save, Laboratory, Production..., Match batch, Match standard, ColorTools..., Evaluate, Print, ASCII, Cancel

Colorant Set

Protected. A „Colorant Set“ tab is displayed for each colorant set. The colorant set name and the part of the corresponding fibre (in %) are displayed on the top.

Part Buttons:

Selection of the colorant set to be displayed (only used with multiple qualities).

Batch Size:

If “Amount Input” is checked, the absolute amount of concentration is entered.

Batch and ...

Selection of the measured sample dyed according to the recipe to be corrected.

Information line:

Differences (dE and dL) between standard, batch, and “Dif. Formula”.

On the left, a graphical view of the differences is displayed. If the differences are out of tolerance, the message „Batch refused“ is displayed and the traffic light is red.

SM Analysis

SmartMatch analysis (graphical display and SmartMatch result table). Color differences (standard/batch) according to the formula used for recipe calculation.

Total batch

Check the box if the batch is measured with all fibres.

SM Insert

If checked, the fast correction is used to enter SmartMatch points manually. **Only the SmartMatch point is saved using the Save button.**



Note

If you only save SmartMatch points, it is not necessary to select the standard. SmartMatch points are independent to the standard. They depend to the quality, the substrate delivery and the colorant set.

SmartMatch Point

Selection of laboratory or production for the SmartMatch point insertion.

**Note**

If you do not check „SM insert“ the recipe and the SmartMatch point can be saved using the **Save** button. The recipe can be used for the „Recipe Search and Correct“ function then.

Table:

Dyestuffs selection and concentration input.

Lab Graph tab

Refer to [Lab Graph Tab on page 7-119](#).

Settings tab

Refer to [Match Dialog Box on page 7-116](#), section [Parameters on page 7-120](#).

Search and Correct Dialog Box

Used for searching for existing recipes that are based on a batch that has a small color difference to a newly measured standard.

Standard Select the new standard.

Affinity, Quality/Style, Customer, Tolerance
Selection criteria.

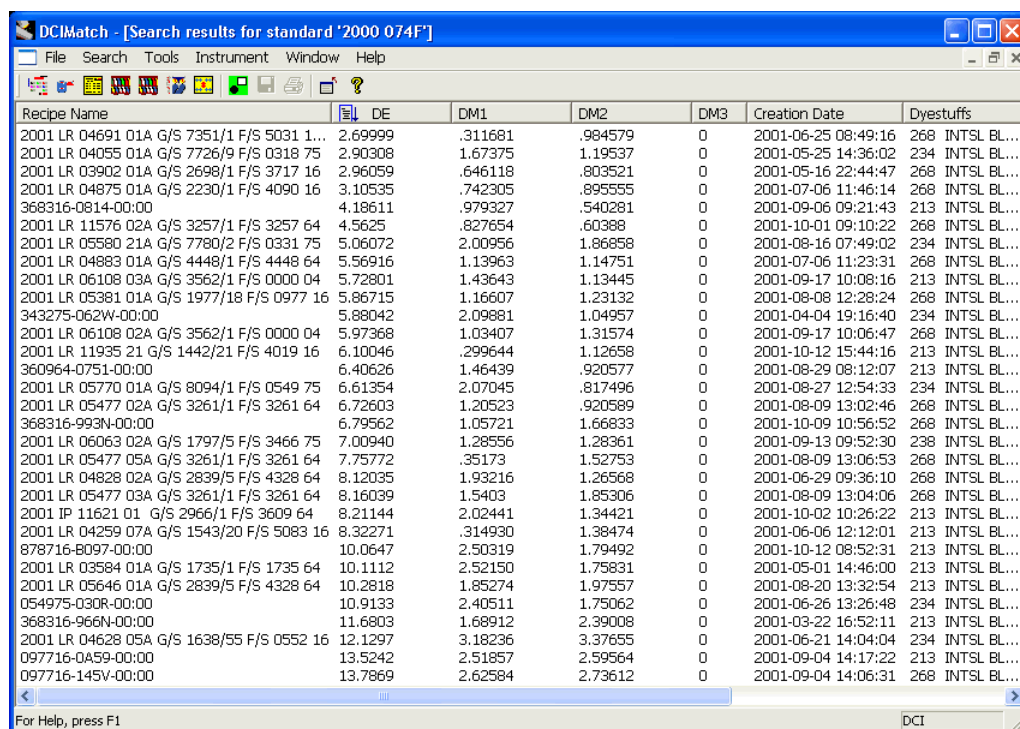
dE to Search Upper limit for dE.

Search (button) Searches for recipes. If recipes are found, they are listed in the „Search Results“ dialog box. Refer to [Search Results Dialog Box on page 7-110](#).

Recipes without SmartMatch information appear in the corresponding box. They cannot be used to calculate a new recipe.

Search Results Dialog Box

List of recipes that can be used for the new calculation.



Recipe Name	DE	DM1	DM2	DM3	Creation Date	Dyestuffs
2001 LR 04691 01A G/S 7351/1 F/S 5031 1...	2.69999	.311681	.984579	0	2001-06-25 08:49:16	268 INTSL BL...
2001 LR 04055 01A G/S 7726/9 F/S 0318 75	2.90308	1.67375	1.19537	0	2001-05-25 14:36:02	234 INTSL BL...
2001 LR 03902 01A G/S 2698/1 F/S 3717 16	2.96059	.646118	.803521	0	2001-05-16 22:44:47	268 INTSL BL...
2001 LR 04875 01A G/S 2230/1 F/S 4090 16	3.10535	.742305	.895555	0	2001-07-06 11:46:14	268 INTSL BL...
368316-0814-00:00	4.18611	.979327	.540281	0	2001-09-06 09:21:43	213 INTSL BL...
2001 LR 11576 02A G/S 3257/1 F/S 3257 64	4.5625	.827654	.60388	0	2001-10-01 09:10:22	268 INTSL BL...
2001 LR 05580 21A G/S 7780/2 F/S 0331 75	5.06072	2.00956	1.86858	0	2001-08-16 07:49:02	234 INTSL BL...
2001 LR 04883 01A G/S 4448/1 F/S 4448 64	5.56916	1.13963	1.14751	0	2001-07-06 11:23:31	268 INTSL BL...
2001 LR 06108 03A G/S 3562/1 F/S 0000 04	5.72801	1.43643	1.13445	0	2001-09-17 10:08:16	213 INTSL BL...
2001 LR 05381 01A G/S 1977/18 F/S 0977 16	5.86715	1.16607	1.23132	0	2001-08-08 12:28:24	268 INTSL BL...
343275-062W-00:00	5.88042	2.09881	1.04957	0	2001-04-04 19:16:40	234 INTSL BL...
2001 LR 06108 02A G/S 3562/1 F/S 0000 04	5.97368	1.03407	1.31574	0	2001-09-17 10:06:47	268 INTSL BL...
2001 LR 11935 21 G/S 1442/21 F/S 4019 16	6.10046	.299644	1.12658	0	2001-10-12 15:44:16	213 INTSL BL...
360964-0751-00:00	6.40626	1.46439	.920577	0	2001-08-29 08:12:07	213 INTSL BL...
2001 LR 05770 01A G/S 8094/1 F/S 0549 75	6.61354	2.07045	.817496	0	2001-08-27 12:54:33	234 INTSL BL...
2001 LR 05477 02A G/S 3261/1 F/S 3261 64	6.72603	1.20523	.920589	0	2001-08-09 13:02:46	268 INTSL BL...
368316-993N-00:00	6.79562	1.05721	1.66833	0	2001-10-09 10:56:52	268 INTSL BL...
2001 LR 06063 02A G/S 1797/5 F/S 3466 75	7.00940	1.28556	1.28361	0	2001-09-13 09:52:30	238 INTSL BL...
2001 LR 05477 05A G/S 3261/1 F/S 3261 64	7.75772	.35173	1.52753	0	2001-08-09 13:06:53	268 INTSL BL...
2001 LR 04828 02A G/S 2839/5 F/S 4328 64	8.12035	1.93216	1.26568	0	2001-06-29 09:36:10	268 INTSL BL...
2001 LR 05477 03A G/S 3261/1 F/S 3261 64	8.16039	1.5403	1.85306	0	2001-08-09 13:04:06	268 INTSL BL...
2001 IP 11621 01 G/S 2966/1 F/S 3609 64	8.21144	2.02441	1.34421	0	2001-10-02 10:26:22	213 INTSL BL...
2001 LR 04259 07A G/S 1543/20 F/S 5083 16	8.32271	.314930	1.38474	0	2001-06-06 12:12:01	213 INTSL BL...
878716-8097-00:00	10.0647	2.50319	1.79492	0	2001-10-12 08:52:31	213 INTSL BL...
2001 LR 03584 01A G/S 1735/1 F/S 1735 64	10.1112	2.52150	1.75831	0	2001-05-01 14:46:00	213 INTSL BL...
2001 LR 05646 01A G/S 2839/5 F/S 4328 64	10.2818	1.85274	1.97557	0	2001-08-20 13:32:54	213 INTSL BL...
054975-030R-00:00	10.9133	2.40511	1.75062	0	2001-06-26 13:26:48	234 INTSL BL...
368316-966N-00:00	11.6803	1.68912	2.39008	0	2001-03-22 16:52:11	213 INTSL BL...
2001 LR 04628 05A G/S 1638/55 F/S 0552 16	12.1297	3.18236	3.37655	0	2001-06-21 14:04:04	234 INTSL BL...
097716-0A59-00:00	13.5242	2.51857	2.59564	0	2001-09-04 14:17:22	213 INTSL BL...
097716-145V-00:00	13.7869	2.62584	2.73612	0	2001-09-04 14:06:31	268 INTSL BL...

Select the basic recipe and in the context-sensitive menu ...

- **Correct and Save** Calculates a new recipe based on the selected recipe and saves it for the new standard.

or

- **Save as new recipe** Saves the selected recipe for the new standard.

Unit Dialog Box

Parameters

<i>Check boxes:</i>	<i>Defines use and placement of the unit.</i>
Price Factor	Factor for price adjustment to the price of the default unit. Default units: m, kg, l
MetricSysCnvFactor	Factor for conversion to the metric system.
Printed Decimals	<i>Only used by Datacolor Process production software.</i> Number of decimal digits to be printed.
Decimal Precision	<i>Only used by Datacolor Process production software.</i> Number of decimal digits used for calculations.
Base Unit Type	Relative, Weight, Length, Volume, Other, Time.



Note

Result Unit, Factor Unit and Denominator Unit can only be selected for the Base Unit Type „Relative“.

Result Unit	Absolute unit ID for relative units.
Factor Unit	Nominator unit for composed units (g/l).
Denominator Unit	Denominator unit for composed units (g/l).

Buttons

Save	Saves the currently displayed unit.
Delete	Deletes the currently displayed unit after confirmation.
Clear	Clears the fields of the dialog box.
Close	Closes the “Unit” dialog box. If data is altered, the program requests the data be saved.

Options Dialog Box

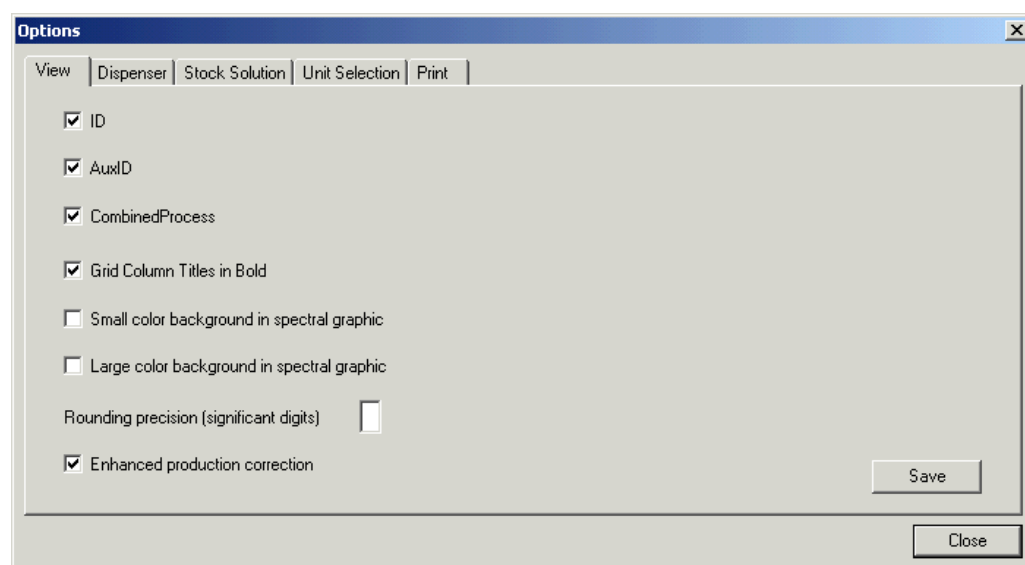
The "Options" dialog box is used for defining views, connecting dispensers, enabling the use of stock solutions, defining laboratory units and printing definitions for the recipe tables.

General button

Close

Closes the "Options" dialog box. If data is altered, the program requests the data be saved.

View Tab



Parameters

Check boxes If checked the related data will be displayed.

Rounding precision (significant digits)

The rounding function of recipe and the laboratory correction tables rounds to the number of the significant digits.

Small color background in spectral graphic

The color spectrum is displayed to the bottom of the graph box.

Small color background in spectral graphic

The color spectrum is displayed as background of the graph box.

Buttons

Save

Saves the current selection.

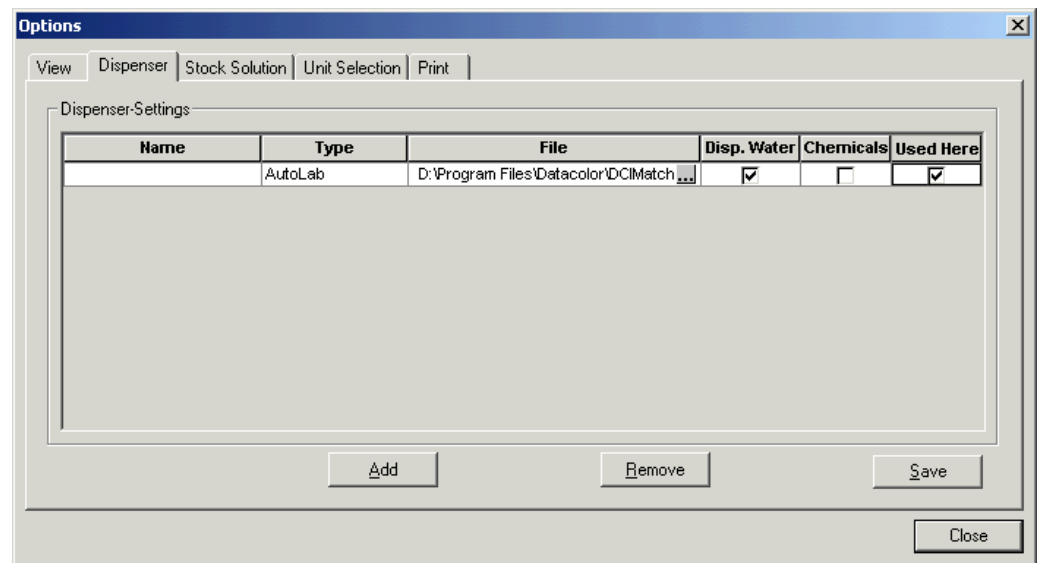
Default: "ID", „Aux ID, "Combined Process", and „Grid Column Titles in Bold" are checked.



Note

„Grid Column Titles in Bold" must be checked for the Chinese and Japanese versions of Datacolor MATCH^{Textile}.

Dispenser Tab



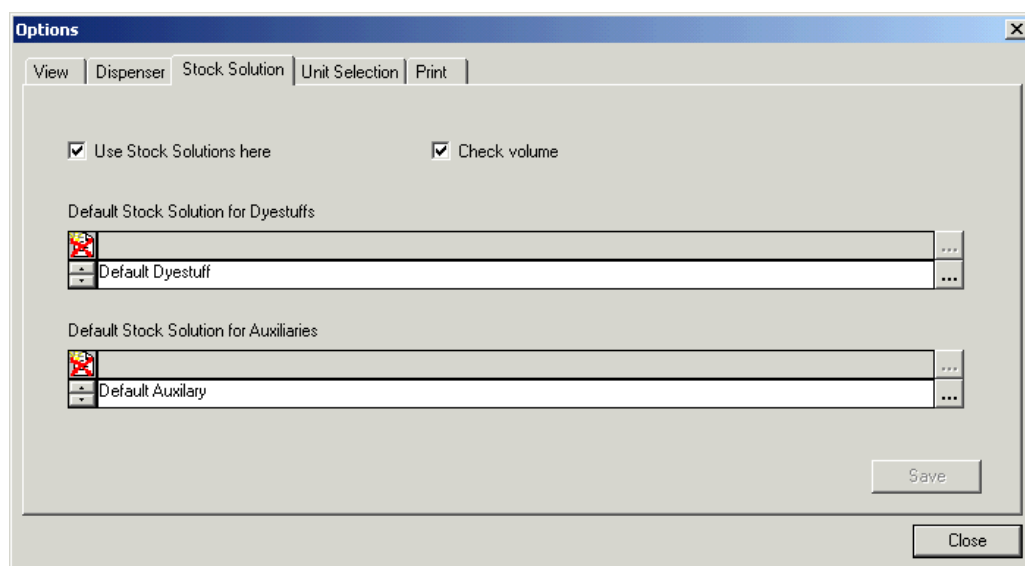
Parameters

Name	Dispenser name.
Type	Dispenser type: „Autolab“ creates an ASCII output file. „DS-5“ creates an ASCII output file (DS5 format). „AutoLab Database“ writes recipe data for AutoLab dispenser systems to the DCI_ALHB.DB Sybase database.
File	Path to the dispenser folder and input of a file name.
Disp. Water	If checked, the dispenser dispenses water.
Chemicals	If checked, the dispenser dispenses chemicals.
Used Here	if checked, the corresponding dispenser obtains the data of the recipes to be dispensed from the workstation.

Buttons

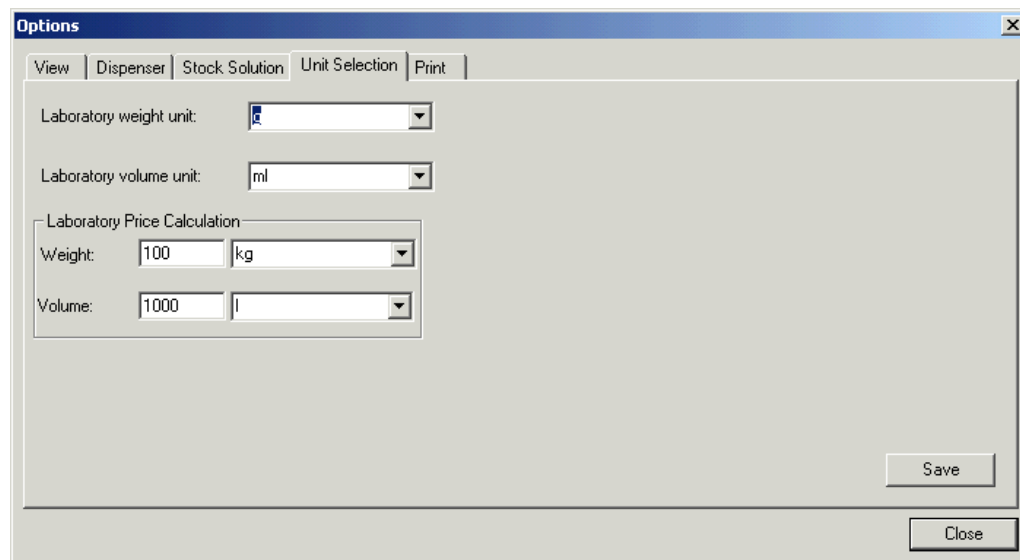
Add	Adds a new dispenser.
Remove	Removes the selected dispenser from the table.
Save	Saves the current settings.

Stock Solution Tab



- Use Stock Solution here If checked, the selected stock solutions are used for this workstation. ***It is possible to specify different stock solutions for each workstation.***
- Check Volume If checked, the program checks that the final volume is not exceeded by the volumes of the components.
- Default Stock Solutions for Dyestuffs Selection of stock solution for dyestuffs.
- Default Stock Solutions for Auxiliaries Selection of stock solution for auxiliaries.

Unit Selection Tab

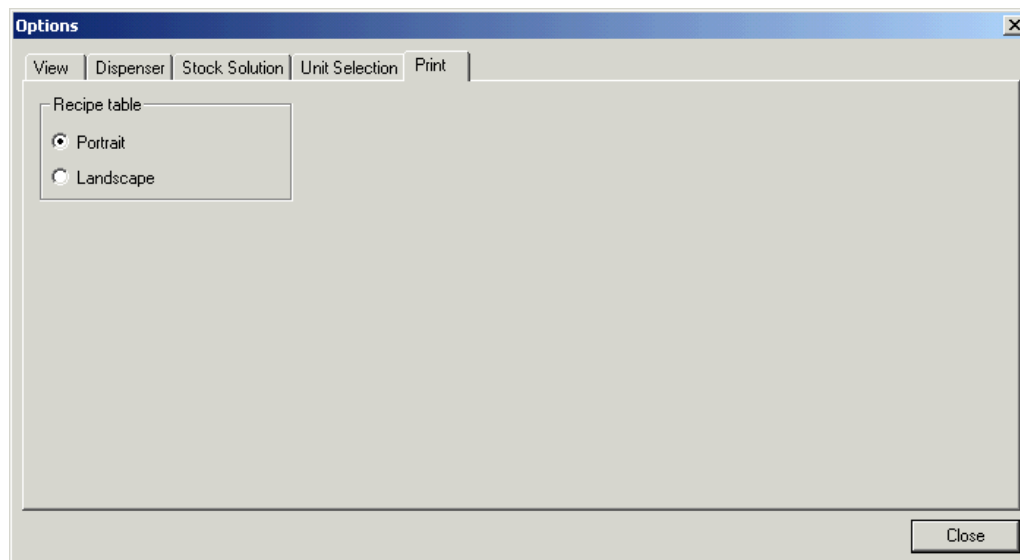


Selection of weight and volume unit for laboratory data.

Laboratory Price Calculation

Weight and bath volume for cost calculation of a laboratory dye lot.

Print Tab



Selection of portrait or landscape format for the recipe table printouts.

Save

The current selection is saved for further use. Otherwise, the selection will only be valid for the current session.

Match Dialog Box

General parameters

Standard Color to be matched. A standard can be selected or re-measured.

General buttons and fields



Note

- If the „Fixed“ parameter is used, and the recipe is saved before the calculation, the dyestuff concentrations will be used as default values and can be altered.
A correction is possible.
- If the „Fixed“ parameter is used and the recipe is calculated without saving, the specified dyestuff concentrations are constant values and cannot be changed.
A correction is restricted or impossible.

Process Data for Matching Tab

Match

Standard: K0002 ELEFANT K

Buttons: Save, Calculate

Tabs: Process Data for matching | Dyaset | Lab-Graphic | Settings

Quality/Style: Datamatch, Polyester 2025

Combined Process: Disperse Exhaust (Terasil)

Affinity: Polyester textured

Substrate delivery [1 elements]: PES Blanc Dyeing

Possible dyaset(s):

[%]	Fiber(s)	Dyaset	Process	E.Substra	Pure Substrate
100	PES	Disperse Terasil	1.00	1.00	PES Blanc Dyeing

Used dyaset(s):

[%]	Fiber(s)	Dyaset	Process	E.Substra	Pure Substrate
100	PES	Disperse Dispersol	1.00	1.00	Dacron1 :001

Standard: Datamatch/Sample, K0002 ELEFANT K

Dyed substrate: Datamatch/Sample

Multicolor matching: ☐

Buttons: Cancel

Parameters

Quality/Style Field for quality/style specification.

Combined Process Field for combined process specification.

Affinity Protected. Display of the assigned affinity.

Substrate delivery Selection of a specific substrate delivery. The latest substrate delivery is selected per default.
New Button: Opens the „Substrate Delivery Dialog“ box for

measuring a new substrate delivery. Refer to [Substrate Delivery Dialog Box on page 7-27](#), [Substrate Delivery: Example on page 5-30](#) and [Overwriting Measurements of Substrate Deliveries on page 5-32](#).

Possible/Used Colorant (Dye) Set

In the „Possible Colorant Set(s)“ table, the selection of possible colorant sets is displayed. A mouse double-click moves it to the „Used Colorant Set“ table. You can modify the percentage of the fibers, the process factor and the substrate effect.

Tolerance

If a tolerance formula is used, it is displayed above the Standard selection (only if a tolerance is assigned to the color type).

Dyed Substrate

Used to calculate a re-dye. A dye substrate can be selected or re-measured.

Multi Color Matching

If checked, different recipes using different dye processes are calculated simultaneously. Used to calculate recipes with different standards for each fiber of a blended quality/style.

Colorant Set Tab

Standard: BAT1

Process Data for matching | Dyeset | Lab-Graphic | Settings

Dyeset: Disperse Terasil | Part [%]: 100

Group: System (Delete, Save)

Selection:

0/1		stuff	Concentration [%]			
A/S/N	Shown : 8 selected : 0	L 1/1 WSH 60 WSH 95 PRES AL Compul Fixed Min.(1) Max.(10) Relation				
Accept Limits >>						
1	<input type="checkbox"/>	Terasil Yellow 4G 7 5 5 5 <input type="checkbox"/> 0.8				
2	<input type="checkbox"/>	Terasil Orange 2RL 7 5 5 5 <input type="checkbox"/> 2				
3	<input type="checkbox"/>	Terasil Red 5G 6-7 5 4 5 <input type="checkbox"/> 2				
4	<input type="checkbox"/>	Terasil Red R 6-7 5 5 5 <input type="checkbox"/> 2.5				
5	<input type="checkbox"/>	Terasil Brill. Blue BGE 200% 7-8 5 5 5 <input type="checkbox"/> 5				
6	<input type="checkbox"/>	Terasil Brill. Blue 3RL 6-7 5 5 5 <input type="checkbox"/> 4				
7	<input type="checkbox"/>	Terasil Violet BL 7 5 5 5 <input type="checkbox"/> 6				

Buttons: Save, Calculate, Cancel

Parameters

Colorant Set

Protected. Currently selected colorant set.

Part

Used for multiple color matching. The buttons are used to switch between the colorant sets.

Group

Selection or definition of dyestuff groups (or fiber product groups for Datacolor BLEND). The **Save** button saves the group with all settings of the „Selection“ table. The **Delete** button deletes a group with all settings.

Refer to [Calculation of A New Recipe Series on page 5-69](#).

Table for dye selection. Refer to [Selecting dyestuffs for matching on page 5-71](#).

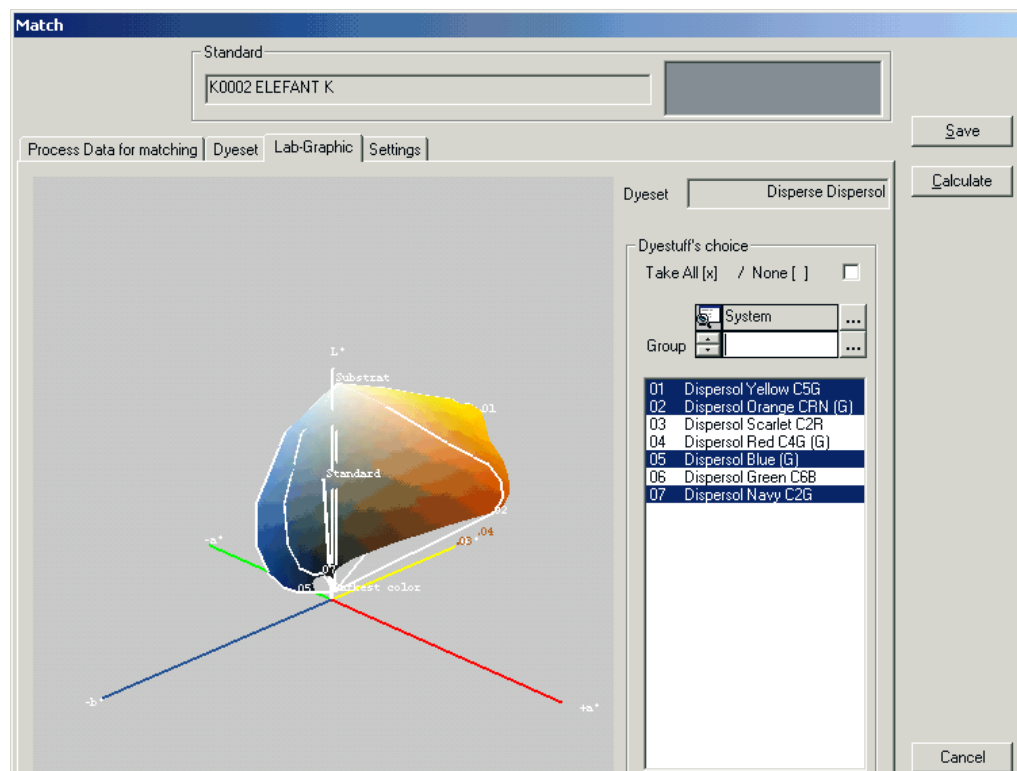
Lab Graph Tab

The „Lab Graph“ tab is used to check that a recipe can be calculated with the selected dyestuffs.



Note

The graphical view cannot check the quality of a recipe.



Graph

The graph may be rotated by pressing down the left mouse button and can be zoomed using the right mouse button.

The standard is displayed as a sphere on the top of a line. **The dyestuff selection is OK if the standard sphere is completely inside the color space.**

- 1 Check the possible dyestuff selections by rotating the color space. **The standard sphere must not leave the color space at any position of the color space.**



Note

- If a selection is not OK, you can change the selection of dyestuffs.
- If a recipe is not possible, you must add dyestuffs or use (specify) another colorant set.

Parameters

Take all/None

Using this check box, you can select or deselect all dyestuffs. The single dyestuffs are selected or deselected with a mouse click.

Group

Selection or definition of dyestuff groups.

Settings Tab

The screenshot shows the 'Match' dialog box with the 'Settings' tab selected. The 'Standard' dropdown is set to 'K0002 ELEFANT K'. The 'Process Data for matching' tab is also visible. The 'User's setting' section includes a list of users with 'User 1' selected, and buttons for 'Save' and 'Delete'. The 'Predefined settings' section has 'Default' and 'XL' buttons. The 'Selection' section has radio buttons for 'Precision' (selected) and 'Turbo'. The 'Tolerance formula' section has a dropdown for 'System' and 'Datacolor Default', and a 'Factor' input set to 1. The 'Matching technology' dropdown is set to 'Lab smartmatch'. The 'Weights' section has inputs for 'for dH' (3) and 'Smartmatch factor in %' (90). The 'Additional illuminants for match' input is 1. The 'Calculate all combinations from' input is 2 to 4. The 'No. of solutions to display' input is 15 for a value dE < 8. The 'Accept when dE <' input is 3 and dM < 6. The 'Stop the calculation when' input is 3 matches with dE < 0.04 and dM < 0.3. The 'Available illuminants / Observer' list includes A, C, D50, D55, D65, D75, F02, and F11. The 'selected illuminants' list includes D65, A, and F11.

Parameters

The parameter selection is altered according to "Optimize using."

User's Settings	Selection or definition of the settings. Individual settings may be saved for each user. The Save button saves all settings. The Delete button deletes the settings.
Predefined Settings	A mouse click on the corresponding button sets the pre-defined values.
Additional Illuminants	Number of additional illuminants to be used for recipe calculation multiple illuminant match. Maximum value is 3.
Calculate All Combinations ...	Range of dyestuffs that can be used for a single recipe.
No. off Solutions ...	Maximum of solutions to be displayed with the defined maximum of dE. Up to this number, the recipes are displayed after calculation.
Accept ...	Recipes are accepted if dE and dM are better than the specified values.
Stop ...	If a recipe has values better than defined, the calculation is stopped and the results are displayed.
Selection	<p>Precision Most precise calculation.</p> <p>Turbo <i>Recommended for big colorant sets.</i> Other pre-selection is used.</p> <p>Both methods calculate recipes with the same precision. With „Turbo“ you may not get all possible combinations.</p>

Tolerance Formula	The tolerance formula is selected automatically.
Illuminants	Using these buttons illuminants, may be selected or deselected.
Matching Technology	Selection of "Normal Match" (no SmartMatch), "Lab SmartMatch" (SmartMatch points of location laboratory are used), and "Prod. SmartMatch" (SmartMatch points of location production are used).
Weight dH	Weighting of hue. You can change the weight of dH. Value range is 0.2 to 5. 5 = highest weight of dH 0.2 = lowest weight of dH The use of this parameter only make sense if additional illuminants are selected.
SmartMatch Factor in %	Value: 100 %. New method for matching with one SmartMatch point. The value is set automatically. Value: 0 %. The additive correction is used.

Recipe Calculation Result Table

Column for weighting the colorimetric values and the price

Standard	PANTONE 19-1333 TC														
Quality/Style 100.00 [%]	Trevira 2000														
Substrate (factor)	Trevira 2000 - 990210 (1.10)														
Process (factor)	Disperse Exhaust (Dispersol) (1.00)														
Formula	CieLab Default[D65]														
dE* D65	1	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.50	2.15
dL*	0	0.00	0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	0.00	-0.02	-0.01
da*	0	0.00	0.00	-0.01	-0.00	0.00	-0.00	-0.00	-0.01	0.00	0.00	-0.00	-0.00	0.00	-0.29
db*	0	-0.00	-0.00	-0.00	-0.01	0.00	-0.01	-0.00	-0.00	-0.00	0.00	-0.00	0.00	0.40	-1.57
dC*	0	0.00	0.00	-0.01	-0.01	0.00	-0.00	-0.00	-0.01	0.00	0.00	-0.00	0.00	0.04	0.18
dH*	0	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.49	-2.14
dE* A	0	1.05	1.89	1.90	1.94	2.11	2.71	2.75	2.88	3.18	3.77	3.81	3.82	3.98	4.34
dE* F11	0	0.86	0.47	2.35	2.30	2.64	1.78	1.96	2.15	0.63	1.11	1.12	0.61	0.94	1.36
dE* F07	0	0.12	0.22	0.27	0.26	0.30	0.24	0.26	0.27	0.38	0.33	0.32	0.33	0.65	2.16
dE* Average	0	0.51	0.64	1.13	1.13	1.26	1.18	1.24	1.33	1.05	0.88	0.88	0.88	1.71	1.85
Metamerism A	0.7	1.06	1.89	1.90	1.94	2.11	2.71	2.75	2.88	3.18	3.77	3.81	3.82	3.93	3.32
Metamerism F11	0	0.86	0.47	2.35	2.29	2.64	1.78	1.96	2.14	0.63	1.11	1.12	0.61	0.96	2.07
Metamerism F07	0	0.12	0.22	0.27	0.26	0.30	0.25	0.26	0.27	0.38	0.33	0.32	0.33	0.36	0.25
CMCCON02 A	0	4.23	4.01	4.39	4.31	4.41	4.32	4.42	4.47	4.18	4.78	4.80	4.68	4.88	4.89
CMCCON02 F11	0	3.68	3.68	4.07	3.68	4.07	3.09	3.31	3.51	1.05	2.44	2.44	1.86	2.26	2.32
CMCCON02 F07	0	2.17	2.04	2.34	2.31	2.36	2.17	2.21	2.22	1.88	2.09	2.08	1.99	2.05	2.21
Sensitivity (Hue)	0	1.93	2.37	0.51	1.53	0.70	1.68	0.41	0.78	0.60	4.05	1.56	0.63	1.40	0.70
Price	0	19.40	21.14	19.09	16.99	18.22	18.72	20.86	20.31	24.81	23.90	23.92	22.53	24.52	24.76
Total concentration [%]	0	0.9363	0.9856	0.8794	0.8591	0.8579	0.9064	0.9245	0.9112	1.1588	1.0668	1.0634	1.0814	1.0931	1.1021
Trial 1															
Dyestuff	1(3)	2(3)	3(3)	4(3)	5(3)	6(3)	7(3)	8(3)	9(3)	10(3)	11(3)	12(3)	13(3)	14(2)	15(2)
Dispersol Yellow C5G	0.2109	0.2059	0.0576				0.0374		0.1799						
Dispersol Orange CRN (G)				0.3782	0.1421	0.3691		0.0929							
Dispersol Scarlet C2R			0.7389		0.6341		0.8223	0.7542							0.8623
Dispersol Red C4G (G)	0.6455	0.7174		0.3983		0.4731			0.8203						
Dispersol Blue (G)		0.0623				0.0641	0.0648	0.0641							0.0621
Dispersol Green C6B									0.1547	0.1424	0.1334	0.1613	0.1627	0.1666	
Dispersol Navy C2G	0.0799		0.0829	0.0825	0.0817					0.0107					
Recipe with D65															
Standard with D65															
Standard with A															
Recipe with A															

The following help functions for review are implemented:

- „Table“ menu and context-sensitive menu:
 - Evaluate Print / ASCII Prints colorimetric details using a predefined form.
 - Theoretical reflectance

Opens the „Insert a Theoretical Sample“ dialog box used for saving theoretical reflectance values (E.g., for Datacolor Envision). Datacolor Tools can send this data to a user with a Datacolor Envision system to check the color, for example. Refer to [Specifying Theoretical Reflectance Values on page 5-96](#).
 - View Configuration

Opens the “View Configurations” dialog box used to define the display of the calculated values and the number of decimal places for colorimetric and concentration data.
 - Reset Sort Order

Resets the sort order of the recipes.
 - Add Trial

Up to five recipes can be marked. **After closing the table, the selected recipes are saved for further use.**
 - Remove Last Trial

Removes the last trial mark.
 - Hide recipes not selected

The recipe table only shows the selected recipes.
 - Show all recipes

Shows all recipes.
 - Mail Table

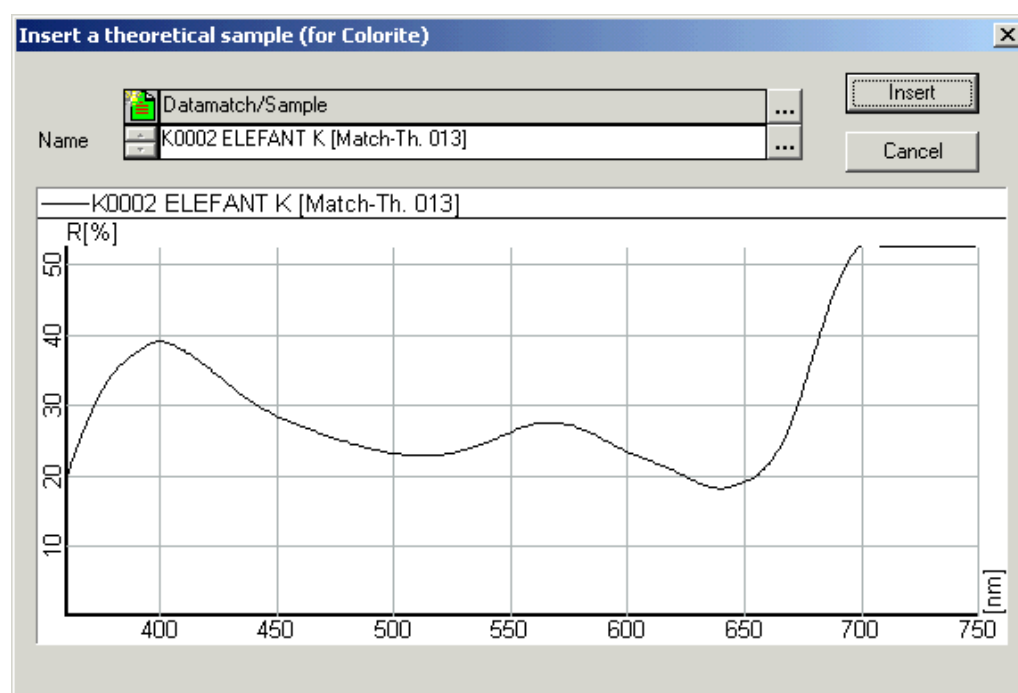
Opens the mail form with an attached screen shot of the recipe table (JPEG format).
 - Modify

Refer to [Manual Recipe Modification \(Recipe Table\) on page 5-81](#).
 - Round

Refer to [Round the Dyestuff Concentration \(Recipe Table\) on page 5-81](#).
 - Manually Change

Refer to [Manual Graphical Correction on page 5-101](#).
- Pressing the **Ctrl** key and clicking in the recipe number field selects the recipes.
- Clicking in a parameter name (first column) in the table with the calculated values sorts the recipe table according to the values of the corresponding row.
- Alteration of weighting (**only possible for metamerism**): If you have altered the weighting, you have to close the window and match again.

Insert A Theoretical Sample Dialog Box



Parameters

Name	Selection of the sample. The name of the currently selected sample is used as default.
Insert (button)	Inserts the theoretical reflectance value into the recipe table.

Graph

Refer to [Spectral Tab on page 7-73](#).

Recipe Editor Dialog Box

The „Recipe Editor“ dialog box is used to alter recipe parameters. Refer to [Modifying Recipes on page 5-79](#).



Modification Rules for adding and removing dyestuffs:

The dyestuff selection of a recipe can only be altered if ...

- the recipe is approved;
- it is not in use by the laboratory and a modification could influence the laboratory correction.

Note

Data that can be modified is displayed with a green background.

Recipe structure	Values
Header	V0002 ELEFANT - 040400 - 1105
Recipe Name	V0002 ELEFANT - 040400 - 1105
Recipe ID	275-2
Creation Date	04.04.2000 11:03:04
Modification Date	26.07.2002 09:38:52
Color Type	V0002 ELEFANT
Quality Name	Cotton knitted not mercerised
CombinedProcess	Remazol Pad Batch Silicate
Batch	BAT 15
Customer Name	
Color Recipe	CO [100 %]
Dye Process Name	Reactive Cold Pad Batch (Silicate)
Colorant Set Name	Remazol SPB (Silicate)
LiquorRatioOrPickup	60.0
Dyestuffs	g/l
Remazol Yellow R Gran.	0.930881
Remazol Red 3B	2.853106
Remazol Brilliant Blue BB gran. 133%	2.574659
Add Dyestuff	Add Dyestuff

Manual Correction: CO [100 %] Go Expand Collaps Undo Save Cancel

The recipe is displayed in a tree structure. Data that can be modified is displayed with a green background.

Buttons

- | | |
|------------------------|--|
| Expand | Expands the tree structure. |
| Collaps | Closes the tree structure. |
| Undo | Cancels the last modifications as long as you have not saved the recipe. |
| Go (manual correction) | Refer to Manual Graphical Correction on page 5-101 . |

Current Population Dialog Box

Affinity/Quality/Style/Substrate/Process/Machine/(Colorant Set)

These specifications are used to select all SmartMatch points of the same dyestuff combination.

You can search for other SmartMatch points by altering the values and clicking **Evaluate**.

Colorimetric

Colorimetric values of the selected SmartMatch point (batch). "Size dE" represents the space used for SmartMatch points to be evaluated.

Evaluate

Evaluates SmartMatch points for a selected set combination.

Cancel

Closes the dialog box without saving. **Data that not has been saved will be lost.**

Location

Selection of the type of the SmartMatch point.

Products

List of used dyestuffs.

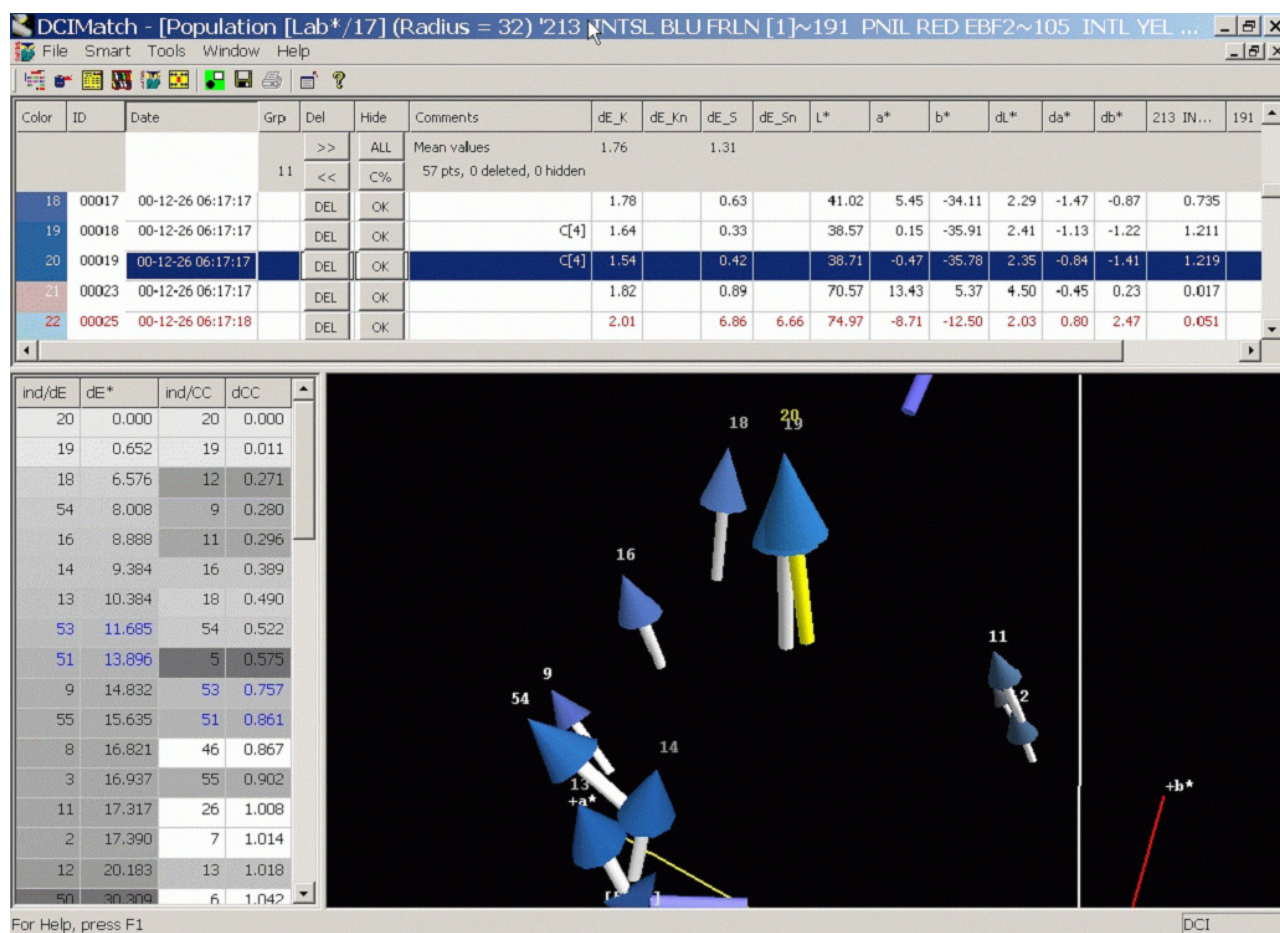
Operation on Population The program checks the SmartMatch points and indicates how many points will be forced to be deleted or merged because they are similar to each other.
Grouped: Number of points grouped automatically by the program.
Points with Comments: Number of points with comments to the detail screen.

**Caution*****Points with comments should be checked.***

Quick	Opens the list of SmartMatch points and the graphical display.
After Analyses	Opens the list of SmartMatch points and the graphical display. Points outside the tolerances are deleted and points to be merged are automatically merged.
3D in Conc.	3D graph in concentration space. If not checked, the graph are in Laboratory space.
Max. Points Displayed	Specifies the maximum points to be displayed.

Population Dialog Box

List and graph of the SmartMatch points used for the housekeeping. Refer to [Reviewing SmartMatch Points on page 5-87](#).



Parameters of the SmartMatch points or groups

All columns in the upper table can be ordered by simply clicking the column header.

Mean Values Displays the mean values of dE_K and dE_S.

dE_K CMC 2:1 color differences between the batch and the theoretical curve using the Kubelka-Munk theory.

dE_S CMC 2:1 color differences between the batch and the theoretical curve using SmartMatch.



Note

dE_S values should always be lower than the corresponding dE_K values. Otherwise, the population contains bad points that should be deleted.

L*, a*, b* Coordinates of the batch representing the SmartMatch point.

dL*, da*, db* CIE Lab color differences of theory (K/S) and batch.

Dyestuff names Concentrations of the SmartMatch point dyes.

Buttons



With these buttons you can change the radius of the color space (color difference CIELab) used to show the SmartMatch points. Default value is 32. Selectable are 1, 2, 4, 16, 32 and 250.



This button toggles between DEL, to delete, and INS, to insert, the SmartMatch point.

The points are definitively deleted if you close the population.



This button toggles between Lab* and C%.

Lab* = Lab color space and C% = concentration space.



The **OK** button is used to mark the SmartMatch point if it is checked. This SM point is hidden in the SM table but is still displayed in the graph. The spike becomes a sphere. The next point in the list will be selected for checking.



The **ALL** button displays all the points again.

Graph

The SmartMatch points are displayed in the graph with different colors:

- The spike has the color of the batch.
- A gray shaft represents a normal point.
- A blue shaft indicates a grouped point and all points belonging to a group.
- The point you have selected in the upper table is displayed with a yellow shaft.
- A red shaft is displayed if a point is suspect.

The length of the shaft is proportional to the dLab* vector representing the lab distance between the theoretical reflectance and the reflectance of the measured batch.

For better identification, all points are numbered, e.g.:

20

Index No. of the SmartMatch point.

[17,4]

The 1st number is index no. of the SM point,
the 2nd number is the number of the group the point belongs to.

[-54,1] =

A negative index identifies a new group point (not existing in the database); it is built when population is opened. It is saved after confirmation during closing the SM population screen.

Table columns on the left of the dialog box

The columns „ind/dE“ and „dE*“ contain the index number and the dE for the CIELab space.

The column „ind/CC“ and „dCC“ show the SmartMatch index and the difference in concentration space.

All SmartMatch points within the color difference selected for the radius (displayed in the dialog title) are colored with different gray shades. Points with the same shade in both columns belong together. This shows clearly how much the color difference depends to the space you are using to evaluate the points.

**Note**

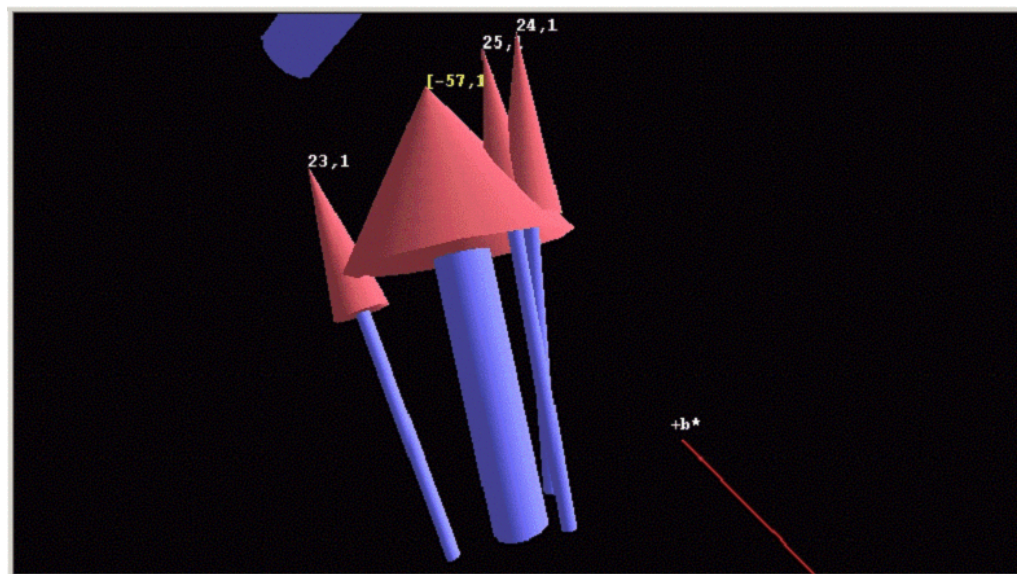
It is necessary to look at the color differences of both spaces to assess the quality of a SmartMatch point.

Navigation in the graph

- The selected point in the SmartMatch table (click the color patch) is displayed in the center of the graph.
- Press down the left mouse button and move the mouse to rotate the graphic. The selected SM point (SmartMatch point with the yellow shaft) is the crucial point.
- Press down the right mouse button and move the mouse to zoom in or out.

Example of A SmartMatch Group Point

The picture shows SmartMatch points that are used to build a group point.



-57,1

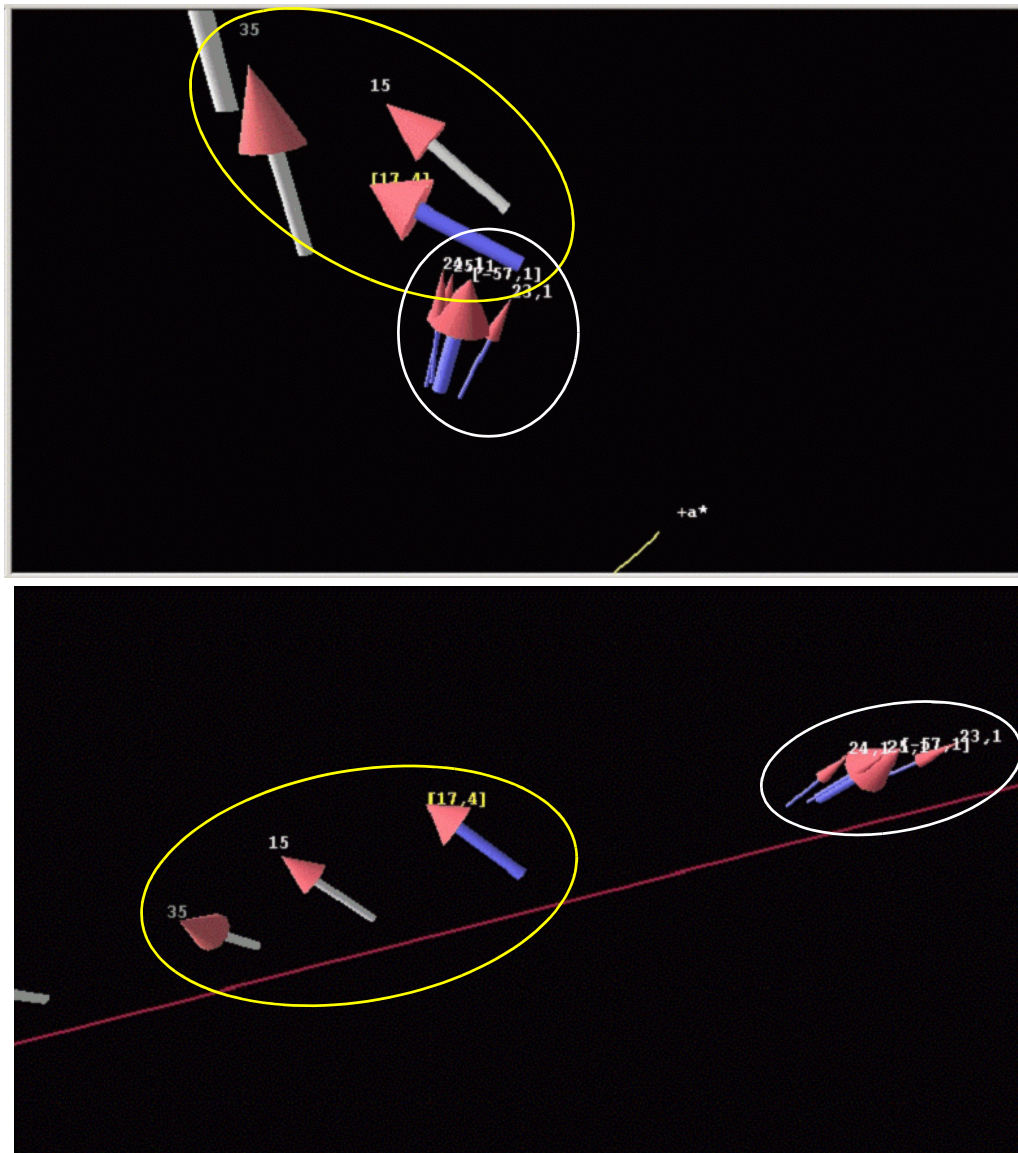
Group point built by the program. The negative index indicates a new group, the 1 is the number of the group.

23,1 / 24,1 / 25,1

Points used to build the group.

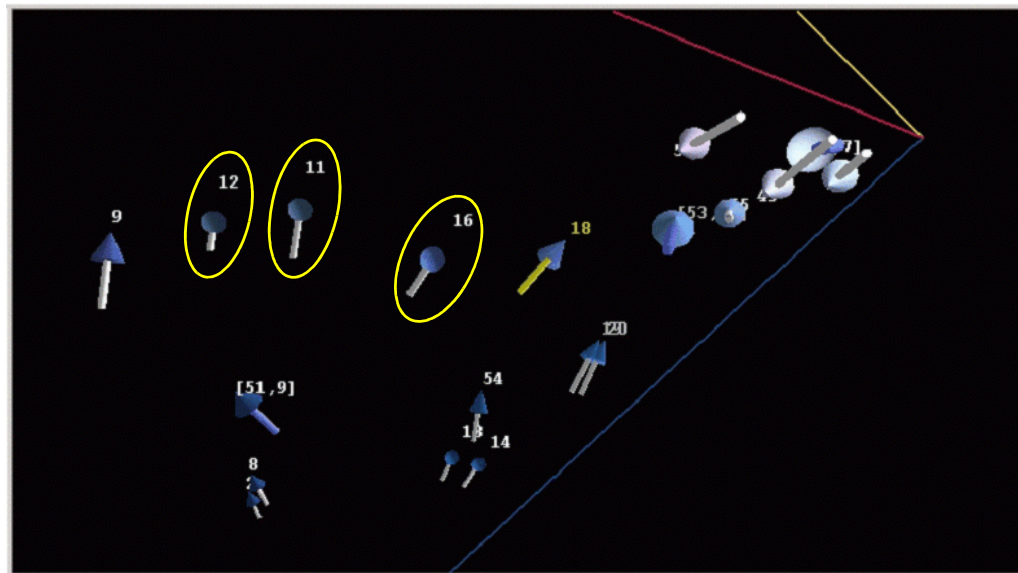
Example of Lab and C% Graphical View

The following pictures show the influence of the space (Lab* or concentration). You see the same points in both. Only in the concentration space can you see the large difference between the points 17,4 and -57,1.



Example of Manually Checked SmartMatch Points

The SmartMatch points 12, 11 and 16 (with a sphere on top) have already been checked manually.



Comments Used for SmartMatch Points



Note

Points with a comment should be checked.

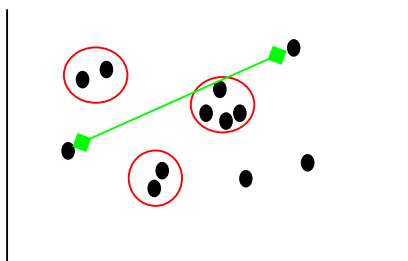
Color	Date	Grp	Del	Hide	Comments	dE_K	dE_Kn	dE_S	dE_Sn	L*	a*	b*	dl*	da*	db*	213 IN...	191 PN...
		11	>>	ALL	Mean values	1.76		1.31									
			<<	C%	, 0 deleted, 0 hidden												
31	00842 00-12-26 06:19:28		DEL	OK	C[1]	3.16		1.14		71.24	7.66	-7.63	3.26	-0.68	3.14	0.031	0.026
40	10138 00-12-26 06:44:53		DEL	OK	Batch[3]	3.77		2.54		82.62	3.85	44.38	0.82	-5.05	-3.69	0.000	0.010
33	10124 00-12-26 06:44:51		DEL	OK	Batch[3]	2.28		1.24		80.49	4.85	39.13	1.66	-2.83	-1.28	0.002	0.013
15	00014 00-12-26 06:17:16		DEL	OK	Batch[2]	1.38		1.65	1.39	57.46	52.50	19.20	2.22	-1.98	-1.53	0.000	0.387
35	10126 00-12-26 06:44:51		DEL	OK	Batch[2]	1.27		0.84	0.82	56.83	45.77	18.73	2.79	-0.55	0.41	0.005	0.338
23	00027 00-12-26 06:17:18	1	DEL	OK	Automatic	1.32		0.41	0.00	50.07	51.09	17.92	2.60	0.90	0.91	0.009	0.632
25	00029 00-12-26 06:17:18	1	DEL	OK	Automatic	1.43		0.34	0.00	50.74	49.96	17.31	2.96	0.41	0.80	0.009	0.603

Comments

Explanation

Automatic

Points with this comment are grouped automatically. The number of the group is written to the „Grp“ column (in the example, it is Group 1). Points are grouped to reduce the number of similar points. Too many points may have a negative influence to the matching quality. Many statistical calculations are necessary to find the SmartMatch points that build a group. The aim is to find „clouds“ of points with similar behavior. It is an iterative process, which calculates the average distance between all points and the smallest distance between two points, which are not equal.



The graph shows how the program is looking for points, which can be used for grouping.

The group point is calculated using the information of the points that are building the group. A theoretical recipe and reflectance values are stored for this new point. Points used for grouping are not deleted from the database. If you select the group point, you can restore the points used to build the group point.

C[x]

All points with „C“ and the same number have similar or equal concentrations, but the reflectance values of the batches are different.

Batch[x]

All points with „Batch“ and the same number have similar or equal reflectance values, but the concentrations are different.

dBat[x]

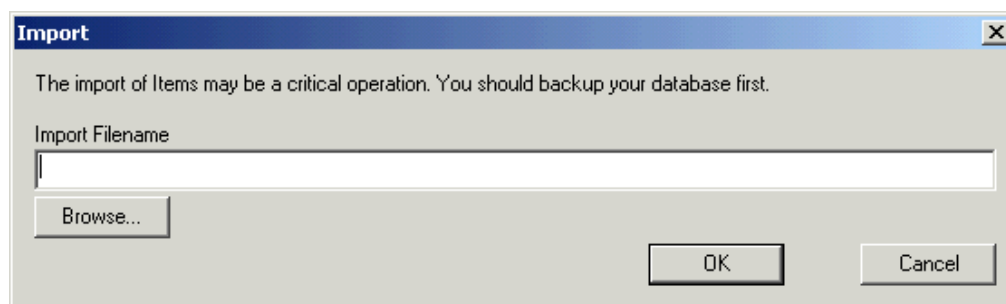
All points with „dBat“ and the same number have similar or equal color difference values, but the concentrations are different.

Example of SmartMatch Points to Be Deleted

Color	ID	Del	Hide	Comments	dE_K	dE_Kn	dE_S	dE_Sn	L*	a*	b*	dl*	da*	db*	213 IN...	199 FO...	135 FO...
		>>	ALL	Mean values	2.24		1.12										
		<<	C%	274 pts, 0 deleted, 0 hidden													
118	01179	DEL	OK	Batch[15],C[45]	3.77		0.78	0.83	21.23	13.62	1.81	4.12	-1.53	-1.57	0.903	4.379	1.297
117	01177	DEL	OK	Batch[15],C[45]	3.44		0.36	0.35	20.85	13.50	2.04	3.85	-1.41	-1.18	0.925	4.392	1.293
205	33709	DEL	OK	Batch[17],dBat[15]	1.96		0.92		28.80	39.33	8.44	1.87	2.29	2.03	0.094	2.605	0.168
192	33708	DEL	OK	Batch[17],dBat[15]	1.87		0.54		27.86	37.77	6.85	1.75	2.03	1.90	0.115	2.775	0.079
211	19598	DEL	OK	Batch[18],C[51]	1.01		0.51	0.53	21.84	19.58	5.06	0.91	-1.17	-0.12	0.557	2.204	1.384

The two points 205 and 192 have both the same or similar batch and the same or similar difference values. You can delete one point, because it makes no sense to have two points with almost the same information. You should also delete points with the same concentrations C(x) comment.

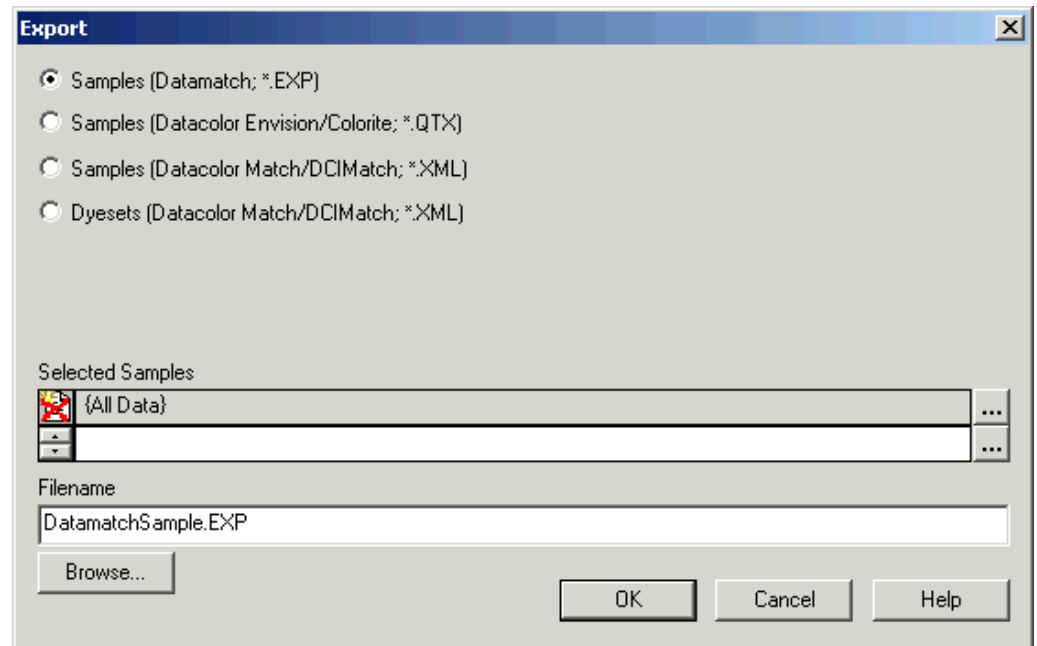
Import Dialog Box



Parameters

Import File Name	Path and name of the file to be imported. Use the „Browse“ button for searching and selecting.
Browse (button)	Displays the Windows standard „Open“ dialog box.

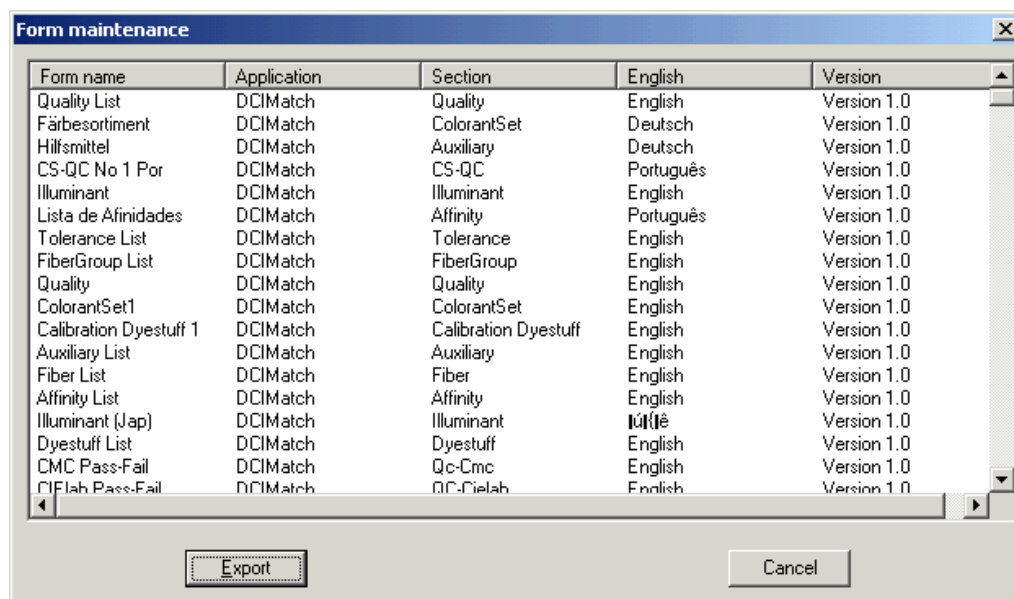
Export Dialog Box



Parameters

Radio buttons	Selection of the sample format.
Selected Samples	Selection of the color samples to be exported.
File Name	Path and name of the export file.
Browse (button)	Displays the Windows standard „Save as“ dialog box.

Form Maintenance Dialog Box



Parameters

Form name	Name of the print form.
Application	Application.
Section	Sub-program.
English	Language of the print form.
Version	Version of the print form.

Buttons

Export	Exports the print form file to the selected location.
--------	---

Pager Window

Page View Designer specific Menu Functions

„File“ menu

- | | |
|---------------|--|
| Import | Opens the “Open” dialog box used to import an exported print form. |
| Export | Opens the “Form Maintenance” dialog box used to select and export print forms. |
| Delete/Rename | Opens the “Form Maintenance” dialog box used for renaming and deleting print forms. |
| Page Setup | Opens the “Page Setup” dialog box used for specifying the left and the right margin. |

„Edit“ menu

- | | |
|--|---|
| Remove all fields from current section | Removes the fields from the selected section. |
| Hide current section | Hides the selected section. |

„Sections“ menu

List of the sections that are available for the current print form. Checked sections are currently used for the form.

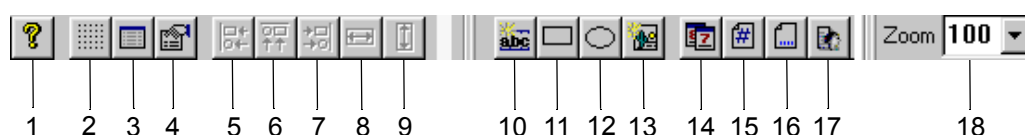
„View“ menu

- | | |
|------------|--|
| Toolbar | Switches the toolbar on (check mark) and off. |
| Status Bar | Switches the status bar on (check mark) and off. |

Fields	Opens the "Fields" information box with the database fields used for the selected section.
Properties	Opens the "Properties" of the selected field.
Look	Opens the "Look" dialog box used for window settings.

„Layout“ menu

Help functions for a correct alignments of fields.

Page View Designer specific Toolbar Functions

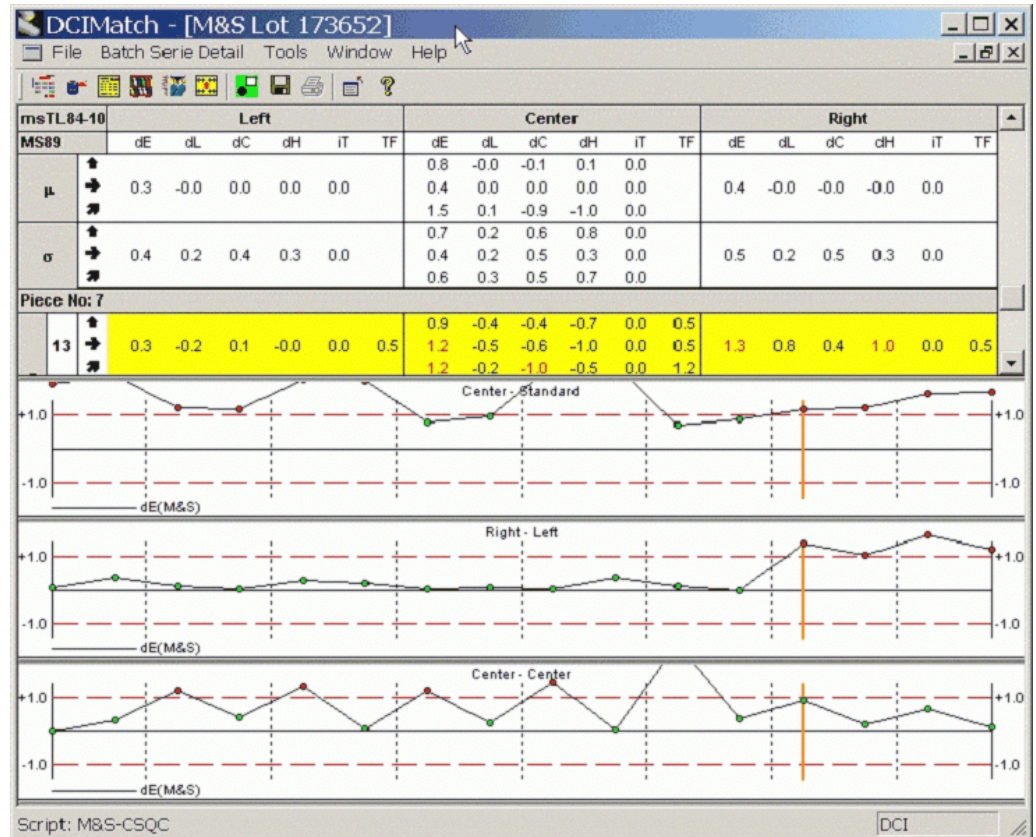
1	About	Page View Designer version info.
2	Grid, Zoom, Ruler	Opens the "Look" dialog box used for window settings.
3	Toggle Fields	Opens the "Fields" information box with the database fields used for the selected section.
4	Toggle Properties	Opens the "Properties" of the selected field.
5	Left Alignment	Active if more than one field is selected.
6	Top Alignment	Active if more than one field is selected.
7	Right Alignment	Active if more than one field is selected.
8	Same Horizontal Size	Active if more than one field is selected.
9	Same Vertical Size	Active if more than one field is selected.
10	Text	Used to specify a text field.
11	Rectangle	Used to draw rectangles.
12	Ellipse	Used to draw ellipses.
13	Bitmap	Used to enter a picture, e.g., a logo. Supported formats: *.bmp, *.pcx, *.jpg.
14	Date/Time	Used to enter a field with date and time.
15	Page Number	Used to enter a page count field.
16	Form Name	Used to enter a field for the form name.
17	Login User	Used to insert the Name of the logged in user.
18	Zoom	Selection of predefined zoom values.

Datacolor MONITOR

Batch Series Window

Refer to:

- [Adding A Graph Panel on page 5-112](#)
- [Printing A Batch Series on page 5-114](#)



Navigation

Left and right cursor keys Navigates from one measurement line (orange vertical solid line) to the next or previous. Corresponding to their position, the numeric values are displayed with yellow background color in the table above. The pieces of fabric are separated in the graph panel by a dotted black vertical line.



Results shown in the table

- One section with the average of all color differences, indicated by μ .
- One section with the standard deviation of all color difference, indicated by σ .
- The next section contains the result for all measurement on one line. This section is separated by the name of the piece of fabric.

Symbols describing the relation of the sample pairs used for color difference calculation:



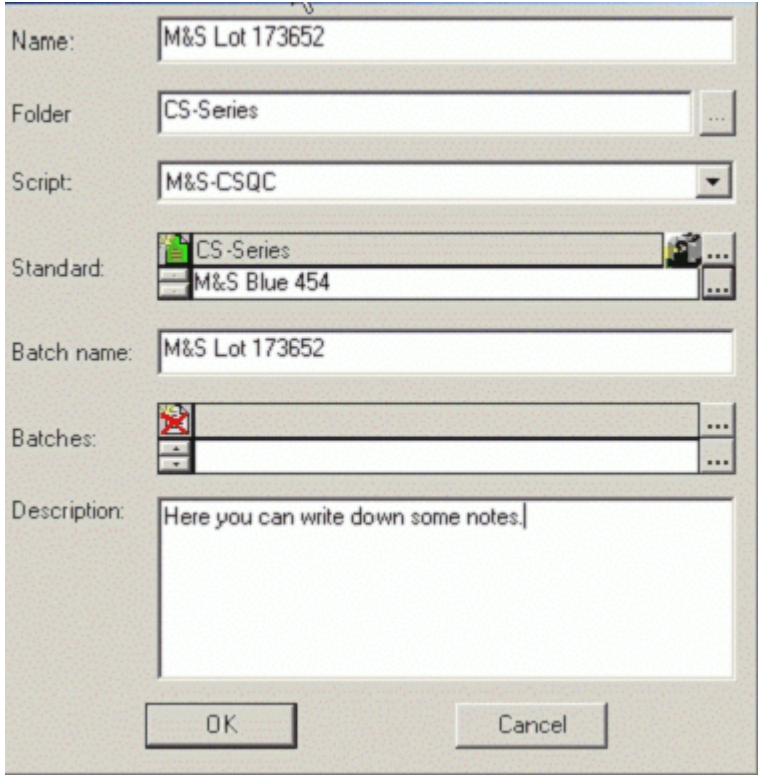
Indicates color difference to a previous measurement, e.g., left to left, center to center or right to right.

-  Indicates color differences to a neighbor sample, e.g., left to center, center to right and right to left.
-  Indicates color differences to the reference, e.g., left to reference, center to reference or right to reference.

You will have nine color difference decisions if you have checked all possible relations.

Create Batch Series Dialog Box

Refer to [Printing A Batch Series on page 5-114](#).



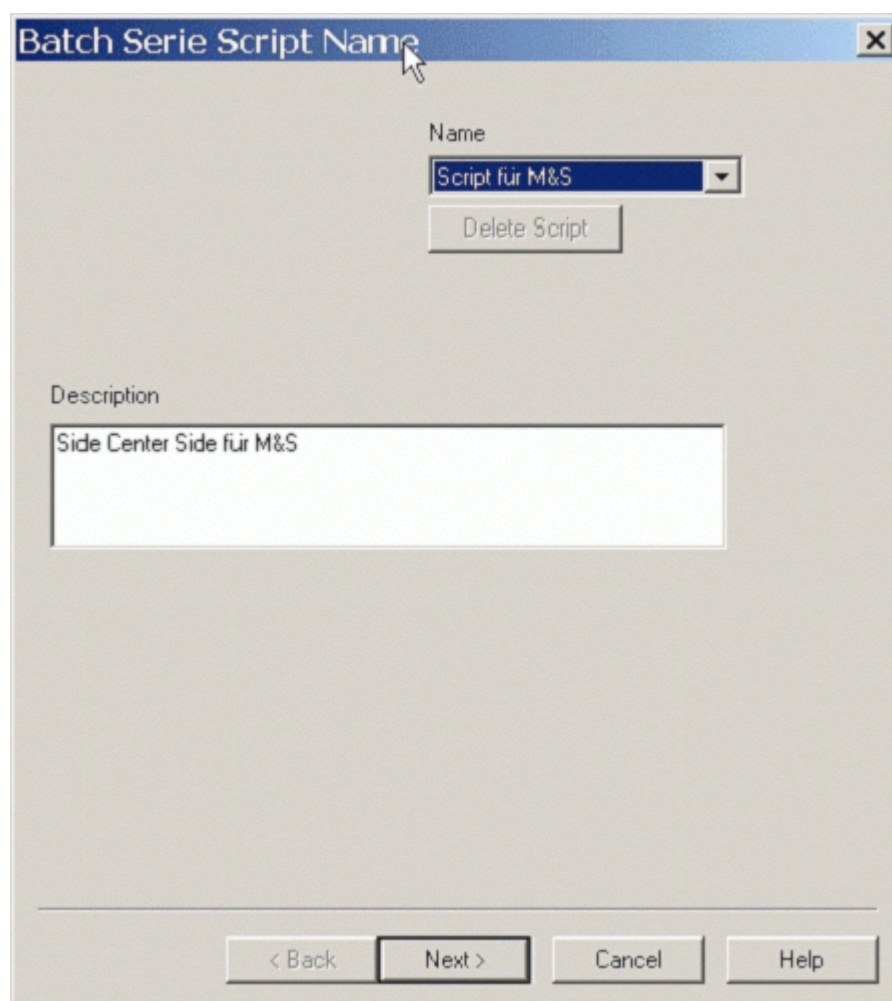
The dialog box contains the following fields and controls:

- Name:** Text field containing "M&S Lot 173652".
- Folder:** Text field containing "CS-Series" with a browse button (...).
- Script:** Dropdown menu showing "M&S-CSQC".
- Standard:** Two-level selection. The top field shows "CS-Series" with a color patch icon and a browse button (...). The bottom field shows "M&S Blue 454" with a color patch icon and a browse button (...).
- Batch name:** Text field containing "M&S Lot 173652".
- Batches:** Two-level selection. The top field shows a red 'X' icon and a browse button (...). The bottom field is empty with a browse button (...).
- Description:** Text area containing the placeholder text "Here you can write down some notes.".
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Name	Name of the batch series.
Folder	Selection of the folder.
Script	Selection of the script.
Standard	Selection of the Standard.
Batch Name	Name of the Batch.
Batches	Selection of the batches.
Description	Field for a description of the batch series.

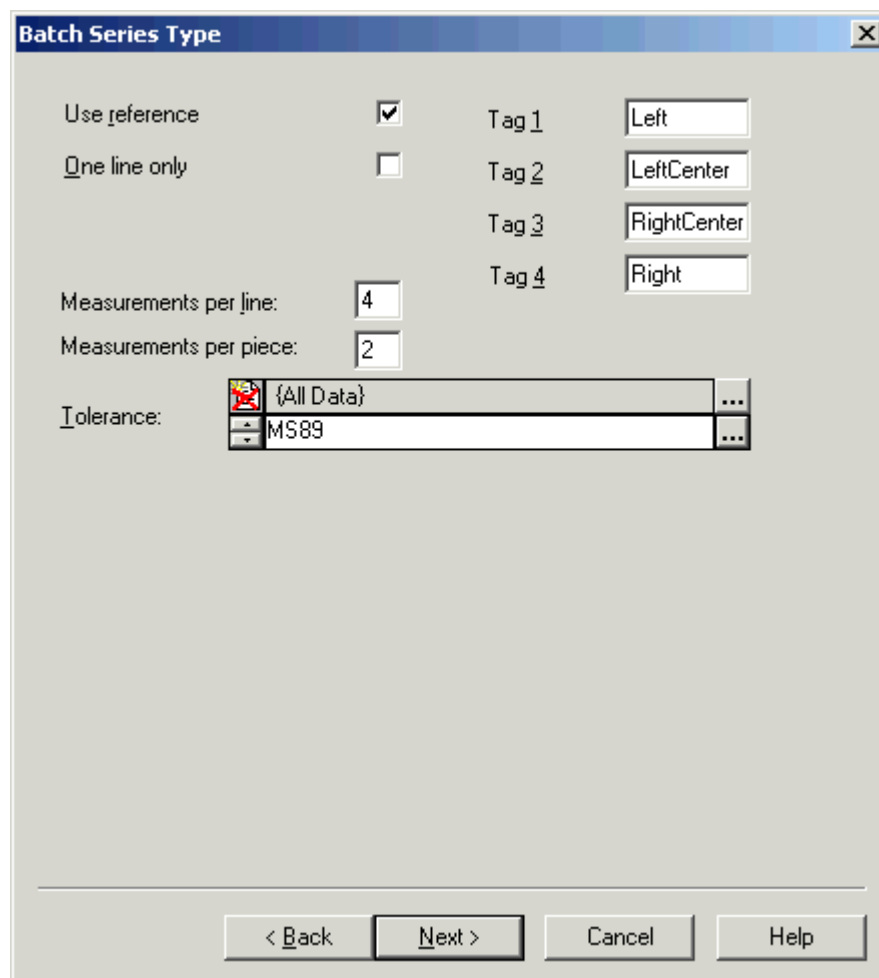
Batch Series Script Name Dialog Box

Refer to [Specifying A Script on page 5-106](#).



Batch Series Type Dialog Box

Refer to [Specifying A Script on page 5-106](#).

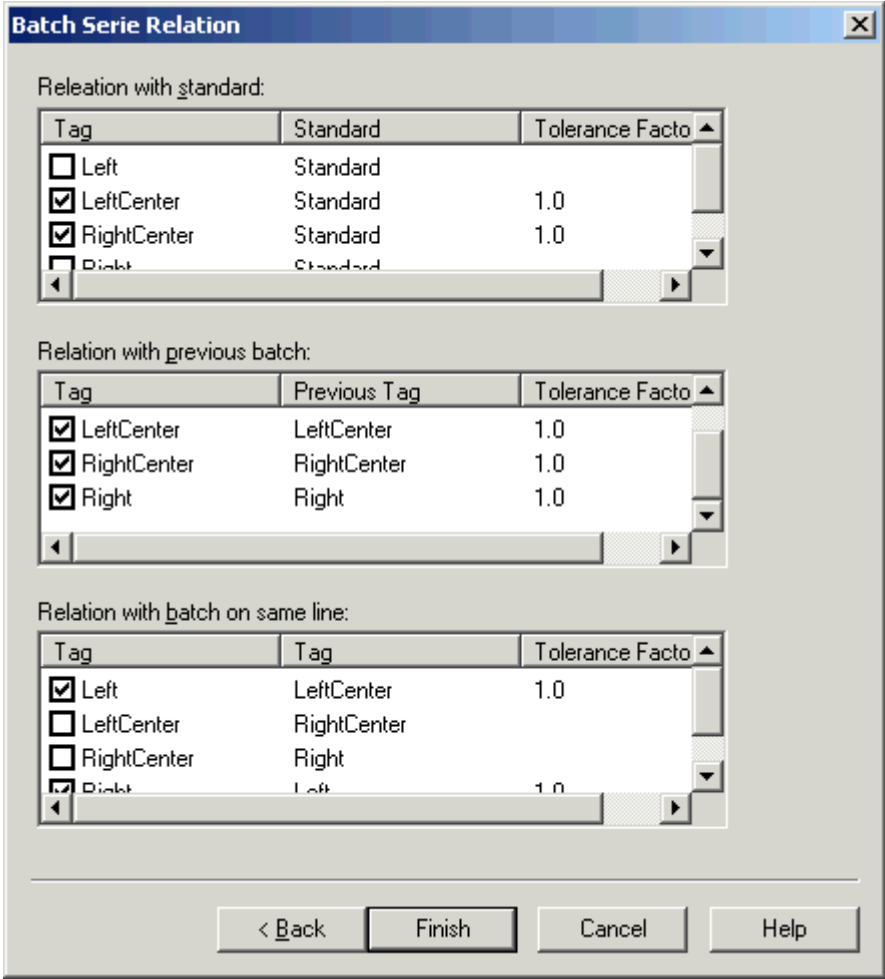


The **Batch Series Type** dialog box is used to configure measurement settings. It includes checkboxes for **Use reference** (checked) and **One line only** (unchecked). It features four tag selection fields: **Tag 1** (Left), **Tag 2** (LeftCenter), **Tag 3** (RightCenter), and **Tag 4** (Right). Numerical input fields are provided for **Measurements per line** (4) and **Measurements per piece** (2). The **Tolerance** section contains a list box with **{All Data}** and **MS89**, each with a selection icon and a dropdown arrow. At the bottom, there are four buttons: **< Back**, **Next >**, **Cancel**, and **Help**.

Option	Value
Use reference	<input checked="" type="checkbox"/>
One line only	<input type="checkbox"/>
Measurements per line	4
Measurements per piece	2
Tag 1	Left
Tag 2	LeftCenter
Tag 3	RightCenter
Tag 4	Right
Tolerance	{All Data}, MS89

Batch Series Relation Dialog Box

Refer to [Specifying A Script on page 5-106](#).



The dialog box is titled "Batch Series Relation" and contains three sections for defining relationships between tags. Each section has a table with columns for Tag, Standard/Previous Tag, and Tolerance Factor. The first section, "Relation with standard:", shows relationships to a standard. The second, "Relation with previous batch:", shows relationships to the previous batch. The third, "Relation with batch on same line:", shows relationships to the batch on the same line. At the bottom are buttons for "< Back", "Finish", "Cancel", and "Help".

Relation with standard:

Tag	Standard	Tolerance Factor
<input type="checkbox"/> Left	Standard	
<input checked="" type="checkbox"/> LeftCenter	Standard	1.0
<input checked="" type="checkbox"/> RightCenter	Standard	1.0
<input type="checkbox"/> Right	Standard	

Relation with previous batch:

Tag	Previous Tag	Tolerance Factor
<input checked="" type="checkbox"/> LeftCenter	LeftCenter	1.0
<input checked="" type="checkbox"/> RightCenter	RightCenter	1.0
<input checked="" type="checkbox"/> Right	Right	1.0

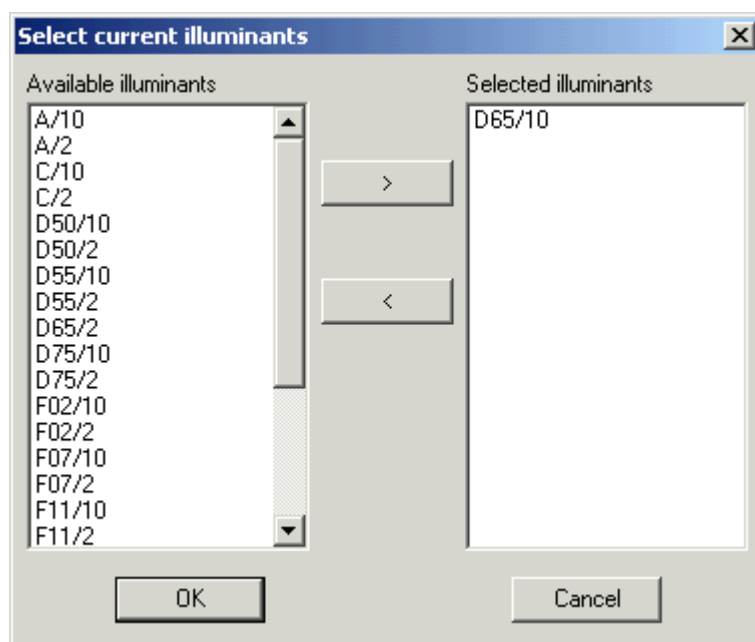
Relation with batch on same line:

Tag	Tag	Tolerance Factor
<input checked="" type="checkbox"/> Left	LeftCenter	1.0
<input type="checkbox"/> LeftCenter	RightCenter	
<input type="checkbox"/> RightCenter	Right	
<input checked="" type="checkbox"/> Right	Left	1.0

< Back Finish Cancel Help

Select Current Illuminants Dialog Box

Refer to [UV Calibration on page 5-11](#).



Datacolor TICKET

Recipe List Window

RGB color	Recipe_ID	Recipe_Name	Recipe_AuxID	Recipe Loc.	LockedLevel	Quality_ID	CombProcess_ID	Affinity_ID
	129-2	Ref. Beige - 002		Theory	■	CoStch	REA-BEZ	CoLy
	129-3	Ref. Beige - 003		Theory	■	CoStch	REA-BEZ	CoLy
	129-4	Copy of Ref. Beige		Theory	■	1	REA-BEZ	CD-SFZ
	129-5	Ref. Beige - 004		Theory	■	1	REA-BEZ	CD-SFZ
	13-41-00/01	Marling 240401		Theory	■	1	REA-BEZ	CD-SFZ
	132	Ref. Grey		Theory	■	9	REA-BEZ	CD-Norm
	1336	Olive-Green		Laboratory	■	3	DISP-TER	PES-TEX
	135	Ref. Red		Laboratory	■	9	REA-BEZ	CD-Norm
	135-2	Copy of Ref. Red		Laboratory	■	9	REA-BEZ	CD-Norm
	138	Ref. Navy		Theory	■	9	REA-BEZ	CD-Norm
	141	Ref. Green		Laboratory	■	1	REA-BEZ	CD-SFZ
	141-1	Ref. Green - 001		Laboratory	■	1	REA-BEZ	CD-SFZ
	141-2	Ref. Green - 1304-1100		Laboratory	■	1	REA-BEZ	CD-SFZ
	141-3	Ref. Green - 002		Theory	■	9	REA-BEZ	CD-Norm
	1424	N00011 HELLBEIGE N01:00		Theory	■	3	DISP-2	PES-TEX
	1424.01	N00011 HELLBEIGE N01		Theory	■	3	DISP-2	PES-TEX

Functions of the “Select” Menu

- Quick Search** Opens a dialog box used to specify a search criteria for the recipes.
- Default Query** Selects all recipes.
- Recipes with Quality List** Adds a column with the query list.
- Recipes with a Product in a Given Conc. Range** Opens a dialog box for setting a concentration range for searching.

Functions of the “View” Menu

- Find in ... Value** Switches the search bar on and off.
- Reset View** Resets the search bar.
- Record Count** Displays the number of records in the title bar.

Buttons

- New** Opens the “New Recipe” dialog box for specifying a new recipe. Refer to [Datacolor TICKET - Production Recipe on page 5-115](#).
- Open** Opens the “New Recipe” dialog box with the selected recipe. Refer to [Datacolor TICKET - Production Recipe on page 5-115](#).
- Delete** Deletes the currently selected recipe after confirmation.
- Quick Search** Opens the dialog box „Quick Search“ dialog box.
- Close** Closes the window. If data is altered, the program requests the data be saved.

Table columns

RGB Color	Display of the color.
Recipe_ID	Unique identification of the recipe.
Recipe_Name	Name of the recipe.
Recipe_AuxID	Additional identification of the recipe.
Recipe Location	Recipe type.
Locked Level	Red: The recipe must not be used for dye lot generation.
Quality_ID	Unique identification of the quality.
CombProcess_ID	Unique identification of the combined process.
Affinity_ID	Unique identification of the affinity.

Context-sensitive menu

Refresh Grid	Refreshes the grid.
Select All	Selects all displayed combined processes.
Unselect All	Deselect all combined processes.
Locate	Opens the "Locate" dialog box.
Filter	Opens the "Filter" dialog box.
Show/Hide Columns	Opens the "Selected Fields" dialog box. Using the „move“ buttons, you can move the field columns to be displayed to the "Selected Fields" and remove the field columns that are not to be displayed.
Set Font	Opens the "Font" dialog box used to define the font for the table text.
Find in	Select the requested table column and type the search criteria. The pointer jumps to the first line with the corresponding data.

Recipe Window (Datacolor PROCESS)

Recipe : MB1209 Old Gold Yellow 1630 (9728-001)

File Edit Recipe

◀ ▶ + - Apply OK Cancel Help

ID: 9728-001 AuxID:

Name: MB1209 Old Gold Yellow 1630


Color type: 7-42-00 MB1209 Old Gold Yellow 1630

Quality: 1 Cotton bleached

Affinity: CO-SPZ Cotton bleached

CombProcess:

Location: Laboratory



Dy...	Dye process	Part	DyeFiberGroup	Colorant set
1	Reactive exhaust	100%	CO	1/10 Reactive Exhaust

#	Product ID	Product Name	Conc	Old Conc	Unit	Actual...
1	14	Bezaktiv Yellow S-3R 150	0.7683	0.0000	%	150 %
1	15	Bezaktiv Red S-3B 150	0.1128	0.0000	%	150 %
2	4	Bezaktiv Green S-4B	0.2301	0.0000	%	100 %

Pass/Fail

Modify Template New dyelot

User : DCI created 03.10.2002, modified 03.10.2002 by DCI

Functions of the „Recipe“ menu

- | | |
|----------------|---|
| Correct | Is used to modify a recipe and keep a copy of the original recipe. Refer to Production Correction on page 5-96 . |
| Clear Template | All loaded recipe components (using the „Load and Modify Template“ button) are to be removed. |
| Go to Dye Lot | Opens the „Dye Lot List“ window with the existing dye lot of the selected recipe. Refer to Datacolor TICKET - Dye Lot on page 5-117 . |
| New Dye Lot | Opens the „New Dye Lot“ dialog box. Refer to Datacolor TICKET - Dye Lot on page 5-117 . |

Buttons on the top

First

Jumps to the first recipe of the list.



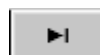
Previous

Jumps to the recipe process.



Next

Jumps to the next recipe.



Last

Jumps to the last recipe of the list.



New

Prepares the window for specifying a new recipe.



Delete

Deletes the currently displayed recipe.



Apply

Saves the currently displayed data. The window is not closed.



OK

Saves the currently displayed data and the window closes.



Cancel

Closes the window without saving.

Parameters

ID

Unique identification of the recipe.

AuxID

Additional identification of the recipe.

Name

Unique name of the recipe.

Color Type

Display of the color type.

Quality

Selection of the quality.

Affinity

Display of the affinity.

CombProcess

Selection of the combined process.

Location

Selection of the recipe type.

Traffic Light

The „traffic light“ may be set to red if the recipe must not be used for dye lot generation.

Pass Fail (button)

The color difference between the color type and the last batch is calculated and displayed.

Dye process table

Displays data of the dye process(es).

Colorant table

Displays data of the colorants used for the recipe. It is possible to modify the recipe.

Buttons on the footer

Load and Modify Template (or Modify Template)

Opens the „Root Recipe“ dialog box with the list of all products with there relative amounts. Refer to [Root Recipe Dialog Box on page 7-149](#).

New Dye Lot

Opens the „New Dye Lot“ dialog box. Refer to [Datacolor TICKET - Dye Lot on page 5-117](#).

Root Recipe Dialog Box

①	②	③	④	⑤	⑥
2	VOL	Volume	0	l	
3			0	l	
4	PE-ELB	Perivet ELP	1	g/l	
5	EM-DPR	Emigen DPR	10	g/l	
6					DYE TANK
7	85	Remazol Yellow GR	6,13235	g/l	
8	80	Remazol Brilliant Red F3B Gran.	0,08437	g/l	
9	77	Remazol Brilliant Blue R Spec. Gr...	1,73236	g/l	
10					ALKALI TANK
11	SOD-SIL-38	Sodium Silicate 38 Bé	50	ml/l	
12	NaOH38	Caustic Soda 39° Bé	5	ml/l	

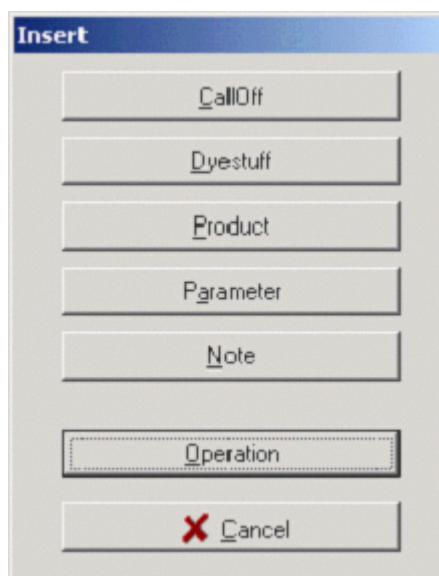
Table columns

- ① Sequence of the use
- ② Product ID
- ③ Product name
- ④ Relative amount
- ⑤ Unit
- ⑥ Remarks

Buttons

Append

Opens the „Insert“ dialog box, used to insert call offs, dyestuffs, products, parameters and notes.

**Note**

- Do not use operate with the dyestuff class as dyestuff placeholder. The color recipe will thereby be duplicated. When you insert an operation, all items are grabbed from the operation and saved in the generated recipe. Recipes are not adjusted, if you change the operation. Production recipes created with the Datacolor TICKET are stored with a flat structure. All recipes must be adjusted manually.
- All items are added to the end of the list. Do not forget to move the products to the correct position in the recipe. Use the „Drag and Drop“ method to move items to a different position.

Delete

Removes the currently selected table line(s).

OK

Saves the currently displayed data, and the dialog box closes.

Cancel

Closes the dialog box without saving.

Dye Lots List Window

DyeLot_ID	Redye	DyeLot_...	ProductToBeReserved	Prod state	ProdStateText	Correction...	Recipe_ID	Customer_ID	Quality
87878787	-			0	Generation needed	-	135.01		9
990422-001	-			20	Active	1	129		9
990426-001	-			40	Dyeing finished	-	129		9
990426-002	-			0	Generation needed	-	661		DLCDV
990426-005	-			20	Active	1	129		9
990427-003	-			40	Dyeing finished	-	64		1
990427-008	-			10	Scheduled	-	64	M&S	1
990427-011	-			0	Generation needed	-	64		1
990427-012	-			10	Scheduled	-	64		1
990427-013	-			10	Scheduled	-	64		1
990427-014	-			10	Scheduled	-	64		1
990427-015	-			0	Generation needed	-	64		1
990428-002	-			40	Dyeing finished	-	277 - 001		9
990428-005	-			40	Dyeing finished	-	64	M&S	1
990428-008	-			20	Active	-	64		1
990428-009	-			20	Active	-	277		10
990429-001	-			10	Scheduled	-	64		1
990429-002	-			10	Scheduled	-	61	M&S	1
990429-012	-			10	Scheduled	-	277 - 001		10
990506-001	-			10	Scheduled	-	681		9
990506-002	-			0	Generation needed	-	135.01		9
990507-001	-			0	Generation needed	-	135.01	RW	9
990507-002	-			10	Scheduled	-	277 - 001		10

Menu functions

Refer to the Datacolor Process help (Press **F1**).

Buttons

New	Opens the “New Dye Lot” dialog box for specifying a new dye lot. Refer to Datacolor TICKET - Dye Lot on page 5-117 .
Modify	Opens the „New Dye Lot“ dialog box. Refer to Datacolor TICKET - Dye Lot on page 5-117 .
Open	Opens the “New Recipe” dialog box with the selected recipe. Refer to Datacolor TICKET - Dye Lot on page 5-117 .
Delete	Deletes the currently selected recipe after confirmation.
Quick Search	Opens the „Quick Search“ dialog box.
Generate	Generates the selected dye lots (only if not generated).
Close	Closes the window. If data is altered, the program requests the data be saved.

Table columns

Refer to the Datacolor Process help (Press **F1**).

Find in	Select the requested table column and type the search criteria. The pointer jumps to the first line with the corresponding data.
---------	--

New Dye Lot Dialog Box

Recipe Selection Tab

The 'New dyelot' dialog box is shown with the 'Recipe selection' tab active. It contains the following fields and controls:

- DyeLot_ID**: Text field with value '25022002-1'.
- DyeLot_Name**: Empty text field.
- AuxID**: Text field with value '0'.
- Recipe selection** / **Machine selection** tabs.
- Recipe**: Dropdown menu with value '279-003'.
- Color type**: Dropdown menu with value '279'.
- Color type**: Text field with value 'V0006 PISTACHE'.
- CombProcess**: Empty text field.
- Customer**: Dropdown menu.
- Quality selection table**:

Quality_ID	Quality_Name	Grey quality	Quality_Ai
1	Cotton bleached		
CoBa	Cotton Baia		
- Generate**: Button with a calculator icon.
- OK**: Button with a checkmark icon.
- Cancel**: Button with a red X icon.

Refer to the Datacolor Process help (Press **F1**).

Machine Selection Tab

The screenshot shows the 'New dyelot' dialog box with the 'Machine selection' tab active. The dialog contains several input fields and a table for machine selection.

Fields at the top:

- DyeLot_ID: 25022002-1
- AuxID: 0
- DyeLot_Name: (empty)

Tabbed interface:

- Recipe selection: (inactive)
- Machine selection: (active)

Fields within the Machine selection tab:

- Recipe: 279-003
- CombProcess: (empty)
- Process type: Continuous (selected), Reactive Cold Pad Batch (Soda/Waterglass) (available)
- Length: 2754 m
- WeightPerQuantity: 150
- Weight: 619.65 kg

Machine selection table:

Machine_ID	Machine_Name
FOUL1	FOULARD 01

Additional fields at the bottom:

- Total volume: 490 l
- Trog volume: 50 l
- Pickup: 70 %
- Note: (empty text area)

Buttons at the bottom:

- Generate (with calculator icon)
- OK (with green checkmark)
- Cancel (with red X)

Refer to the Datacolor Process help (Press **F1**).

Datacolor SORT (Option)

Datacolor SORT List Window

Table columns

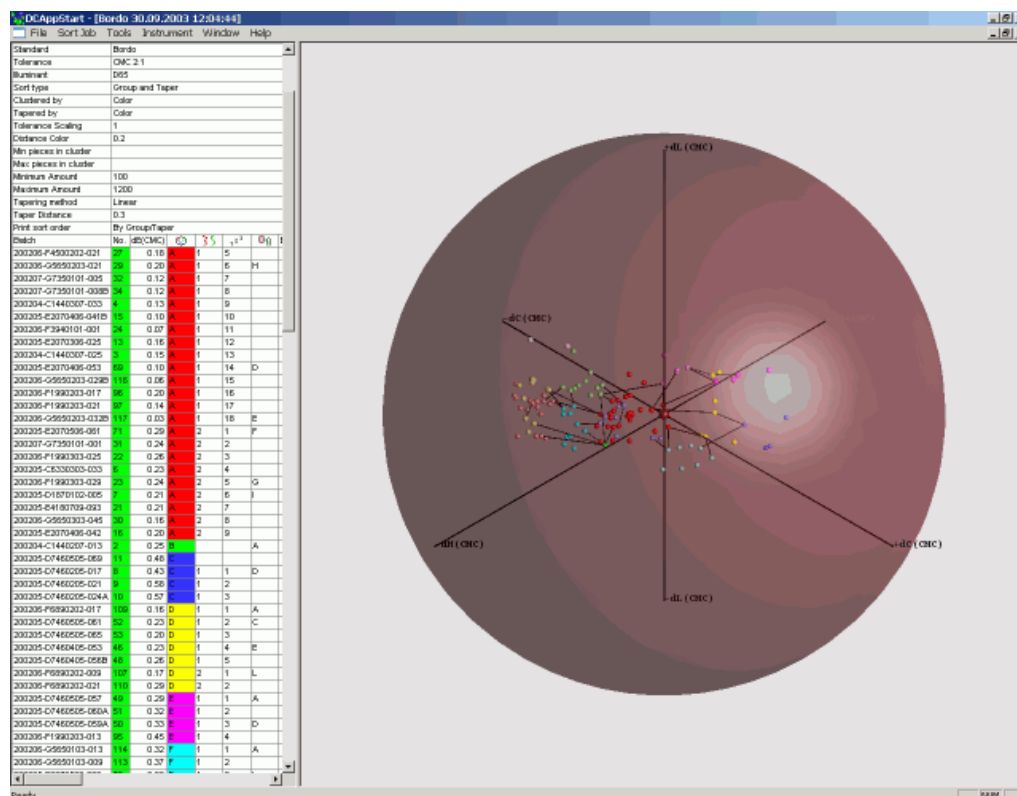
The data (table columns) to be displayed and the names of the table columns can be altered using the "User's Browser Definition" function of the "Tools" menu. Refer to [Browser Customizing on page 4-6](#).

Sort Job Name	Unique name of the sort job.
Sort Script Name	Unique name of the sort related script.
Name	Name of the standard.
Modification Date	Date of last modification.
Description	Description of the standard.

Functions of the "Datacolor Sort" and the context-sensitive menu

Refer to [Menu Functions of the Sort Job Menu on page 7-155](#) and for general functions of the context-sensitive menu [Functions of the "Basic Data" Menu on page 7-10](#).

Job Result Window



Menu Functions of the Sort Job Menu**Maintain Sample Property**

Refer to [Maintain the Sample Property on page 5-131](#).

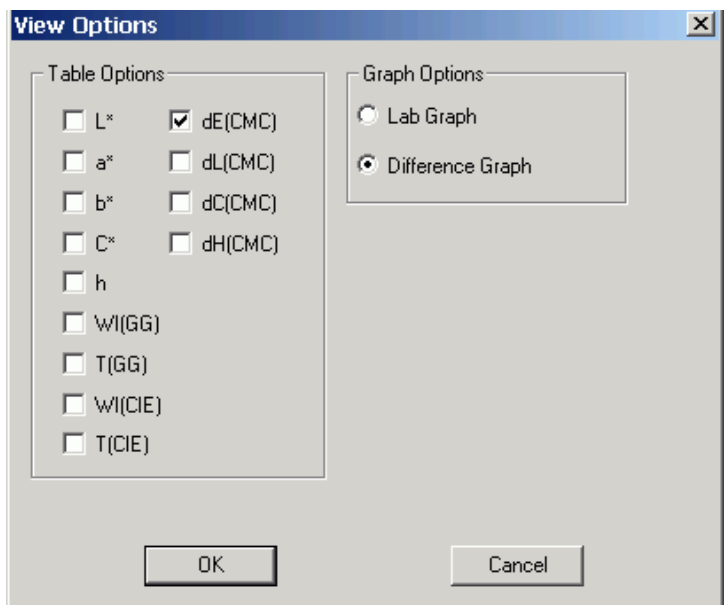
Recalculate

If you open an existing sort job, the program recalculates the job with the settings and batches saved in the job.

Executing the option „Recalculate“ - the program reads the Sort Script again and re-builds the job with all modified settings. If „I want to use a Datacolor Tools Standard“ was activated in the job, all new batches are added automatically. This task is very important, if you build the groups and tapers on the basis of fabric length. For example, if some of the fabric rolls have been delivered and the remaining length has changed, the job must be recalculated, so that the new length is taken into account when new clusters and tapers are built.

Options

You can select other data to be displayed in the „Job Result“ window:

**Batch removed**

You can remove batches from a job, e.g., if the sample (fabric roll) is delivered. The sample is grayed out but it is not deleted from the job. To re-activate the sample, remove the check from the option.

Modify Job

Refer to [Modifying a SORT job on page 5-125](#).

Save Job

Saves the job.

Save Job As

You can specify a copy of an existing job using the function. The copy of the job can be used to cluster and taper with new conditions without losing the original data.

Copy

This task copies the entire table to the Windows clipboard. E.g., this is a simple way to transfer the data to Excel.

Print Preview	Shows the print out in the Job Result table. Refer to Examples of Printouts on page 7-158 .
Print	Prints the result without displaying on screen. Refer to Examples of Printouts on page 7-158 .
ASCII Output (optional)	Writes the job result to an ASCII file (An ASCII form must exist). Refer to ASCII Output (Option) on page 4-20 .
Close Sort Job	Closes the sort job.

Details to the Job Result Table

Standard	Bordo									
Tolerance	CMC 2:1									
Illuminant	D65									
Sort type	Group and Taper									
Clustered by	Color									
Tapered by	Color									
Tolerance Scaling	1									
Distance Color	0.2									
Min pieces in cluster	8									
Max pieces in cluster										
Minimum Amount										
Maximum Amount										
Tapering method	Linear									
Taper Distance	0.3									
Print sort order	By Group/Taper									
Batch	No.	dE(CMC)	dL(CMC)	dC(CMC)	dH(CMC)					
200204-C1440307-037	13	0.47	0.33	-0.20	-0.27					
200205-D7460205-017	75	0.43	0.20	0.08	0.36					
200205-D7460205-021	76	0.58	-0.31	0.16	0.46					
200205-D7460205-024	77	0.57	0.23	0.14	0.45					
200205-D7460505-04				0.27	0.39					
200205-E2070206-01				-0.19	-0.19					
200205-E2070306-01				-0.29	-0.17					
200205-E2070606-085	130	0.57	0.33	-0.32	-0.34					
200205-E2070406-042	119	0.20	0.00	-0.12	-0.16	A	1	1	B	
200204-C1440107-001	1	0.20	0.00	-0.07	-0.19	A	1	2		
200207-G7350101-008B	219	0.12	0.00	-0.09	-0.08	A	1	3		
200206-F1990303-029	184	0.24	-0.03	-0.20	-0.14	A	1	4		
200207-G7350101-005	217	0.12	-0.01	-0.09	-0.08	A	1	5		
200205-E2070406-041B	116	0.10	-0.01	-0.09	-0.03	A	1	6	G	
200205-E4180709-093	160	0.21	-0.03	-0.18	-0.11	A	1	7		
200205-E2070406-045	120	0.14	-0.03	-0.11	-0.08	A	1	8		
200206-F1990303-025	183	0.26	-0.05	-0.17	-0.18	A	1	9	E	
200205-E4180509-065	153	0.14	-0.05	-0.12	-0.06	A	1	10		
200204-C1440207-013	4	0.25	-0.08	-0.09	-0.22	A	1	11		
200206-F3940101-001	187	0.07	-0.06	-0.01	-0.04	A	1	12	F I	
200207-G7350101-001	216	0.24	-0.10	-0.19	-0.11	A	1	13	C	
200205-D1870102-005	57	0.21	-0.10	-0.17	-0.08	A	1	14		
200206-G5650303-045	215	0.16	-0.09	-0.06	-0.13	A	1	15		
200205-C6330303-033	51	0.23	-0.12	-0.13	-0.14	A	1	16	D	
200204-C1440307-025	10	0.15	0.07	-0.10	-0.08	A	2	1	H	
200206-G5650203-021	207	0.20	0.07	-0.13	-0.14	A	2	2		
200205-E2070306-025	111	0.16	0.08	-0.10	-0.10	A	2	3		
200206-F4500202-017	194	0.26	0.07	-0.23	-0.10	A	2	4		
200206-G5650203-017	206	0.28	0.07	-0.20	-0.18	A	2	5		
200206-F4500102-005	191	0.25	0.08	-0.17	-0.16	A	2	6		
200205-E4180709-089	159	0.27	0.08	-0.22	-0.13	A	2	7		
200206-F4500202-021	195	0.18	0.03	-0.16	-0.09	A	3	1		
200207-G7350101-008A	218	0.19	0.01	-0.13	-0.13	A	3	2		
200204-C1440307-033	12	0.13	0.01	-0.08	-0.10	A	3	3		
200204-C1440507-065	26	0.25	0.01	-0.16	-0.19	B	1	1	A F H	
200206-F1990403-037	186	0.38	-0.06	-0.32	-0.20	B	1	2		

Group and/or taper conditions

Click the column header to re-order the table

Batches not Clustered and Tapered



Symbol for cluster



Symbol for taper



Symbol for taper sequence



Symbol for compatible cluster



Symbol for Cluster A, Cluster B etc.



Batch 200205-E3940101-001 is compatible to Cluster F and I

Examples of Printouts

Use the menu function **Sort Job**, **Print Preview**, or **Print** to show or print the sort result.

Example 1:

Printout sorted by group and/or taper code

01.10.2003 11:10 DCI

datacolor

JobName	Bordo 30.09.2003 11:43:07			SortType	Group and Taper
Standard	Bordo			ClusteredBy	Color
Tolerance	CMC 2:1	D65		TaperingMethod	Linear
				TaperedBy	Color
				TaperDistance	0.30

Tolerance Scaling	1.00	MinPiecesInCluster	8	Minimum Amount
Distance Color	0.20	MaxPiecesInCluster		Maximum Amount

Batches not clustered

<u>BatchName</u>	<u>dE(CMC)</u>	<u>dL(CMC)</u>	<u>dC(CMC)</u>	<u>dH(CMC)</u>
200204-C1440307-037	0.47	0.33	-0.20	-0.27
200205-D7460205-017	0.43	-0.20	0.08	0.38
200205-D7460205-021	0.58	-0.31	0.16	0.46
200205-D7460205-024A	0.57	-0.32	0.14	0.45
200205-D7460505-069	0.48	-0.08	0.27	0.39
200205-E2070206-017	0.32	0.18	-0.19	-0.19
200205-E2070306-037	0.41	0.22	-0.29	-0.17
200205-E2070606-085	0.57	0.33	-0.32	-0.34


<u>TaperID</u>	<u>1</u>	<u>ClusterTaperID</u>	<u>A/1</u>	<u>Sum of</u>	
<u>BatchName</u>	<u>Sequence</u>	<u>dE(CMC)</u>	<u>dL(CMC)</u>	<u>dC(CMC)</u>	<u>dH(CMC)</u>
200205-E4180709-089	1	0.27	0.08	-0.22	-0.13
200206-F4500102-005	2	0.25	0.08	-0.17	-0.16
200206-G5650203-017	3	0.28	0.07	-0.20	-0.18
200206-F4500202-017	4	0.26	0.07	-0.23	-0.10
200205-E2070306-025	5	0.16	0.08	-0.10	-0.10
200206-G5650203-021	6	0.20	0.07	-0.13	-0.14
200204-C1440307-025	7	0.15	0.07	-0.10	-0.08
200206-F4500202-021	8	0.18	0.03	-0.16	-0.09
200207-G7350101-008A	9	0.19	0.01	-0.13	-0.13
200204-C1440307-033	10	0.13	0.01	-0.08	-0.10
200205-E2070406-042	11	0.20	0.00	-0.12	-0.16
200204-C1440107-001	12	0.20	0.00	-0.07	-0.19
200207-G7350101-008B	13	0.12	0.00	-0.09	-0.08
200206-F1990303-029	14	0.24	-0.03	-0.20	-0.14
200207-G7350101-005	15	0.12	-0.01	-0.09	-0.08

DCIMatch/DynaSortByCluster/English/Version 1.0/DynaSort_OrderedBy_Clust

Page 1

Example 2:
Printout sorted by name (sort order depends on order on result screen)

01.10.2003 11:10 DCI



JobName	Bordo 30.09.2003 11:43:07	SortType	Group and Taper	Tolerance Scaling	1.00
Standard	Bordo	ClusteredBy	Color	Distance Color	0.20
Tolerance	CMC 2:1	TaperingMethod	Linear	TaperedBy Color	0.30
MinPiecesInCluster	8	MaxPiecesInCluster		Minimum Amount	Maximum Amount

OrderedBy Cluster

<i>BatchName</i>	<i>L*</i>	<i>a*</i>	<i>b*</i>	<i>C*</i>	<i>h*</i>	<i>dE(CMC)</i>	<i>dL(CMC)</i>	<i>dC(CMC)</i>	<i>dH(CMC)</i>	<i>ClusterPathSeq.</i>
200204-C1440307-037	27.86	40.21	17.07	43.68	23.00	0.47	0.33	-0.20	-0.27	Pass
200205-D7460205-017	27.07	40.48	18.16	44.37	24.16	0.43	-0.20	0.08	0.38	Pass
200205-D7460205-021	26.89	40.59	18.34	44.54	24.31	0.58	-0.31	0.16	0.46	Pass
200205-D7460205-024A	26.88	40.57	18.31	44.52	24.29	0.57	-0.32	0.14	0.45	Pass
200205-D7460505-069	27.25	40.89	18.37	44.83	24.19	0.48	-0.08	0.27	0.39	Pass
200205-E2070206-017	27.65	40.19	17.19	43.71	23.15	0.32	0.18	-0.19	-0.19	Pass
200205-E2070306-037	27.70	39.95	17.10	43.45	23.18	0.41	0.22	-0.29	-0.17	Pass
200205-E2070606-085	27.86	39.97	16.87	43.38	22.88	0.57	0.33	-0.32	-0.34	Pass
200205-E4180709-089	27.49	40.09	17.23	43.64	23.25	0.27	0.08	-0.22	-0.13	Pass
200206-F4500102-005	27.49	40.20	17.24	43.74	23.21	0.25	0.08	-0.17	-0.16	Pass
200206-G5650203-017	27.48	40.15	17.18	43.67	23.17	0.28	0.07	-0.20	-0.18	Pass
200206-F4500202-017	27.47	40.05	17.26	43.61	23.31	0.26	0.07	-0.23	-0.10	Pass
200205-E2070306-025	27.48	40.33	17.38	43.92	23.32	0.16	0.08	-0.10	-0.10	Pass
200206-G5650203-021	27.47	40.30	17.30	43.85	23.24	0.20	0.07	-0.13	-0.14	Pass
200204-C1440307-025	27.48	40.32	17.41	43.92	23.36	0.15	0.07	-0.10	-0.08	Pass

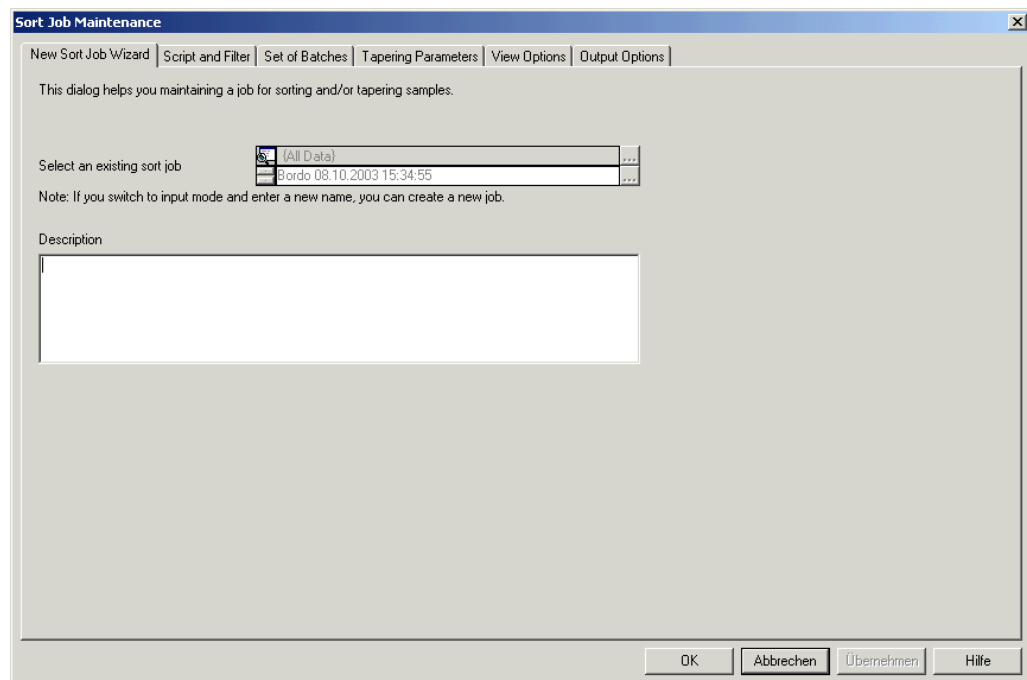
DCIMatchDynaSortByBatchEnglish/Version 1.0DynaSort_OrderedBy_Batch

Page

1

Sort Job Maintenance Dialog Box

New Sort Job Wizard Tab

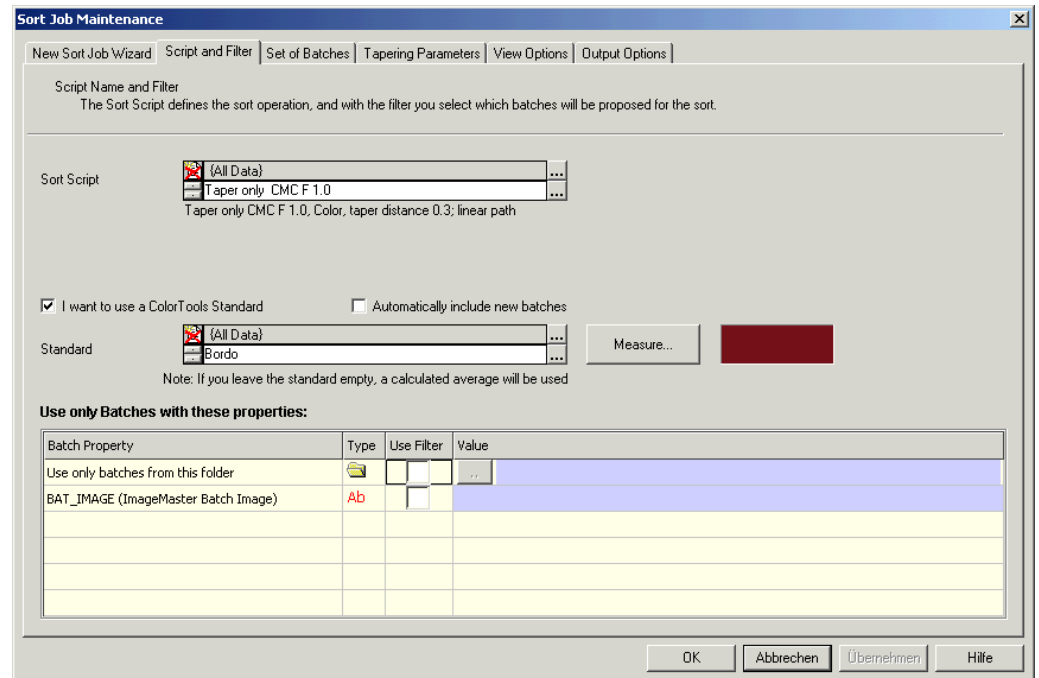


Parameters

Select an existing sort job Selection box with the name of the sort job.

Description Text box for an additional description of the sort job.

Script and Filter Tab



Parameters

Sort Script

Selection box with the currently used sort job.

Check boxes

If you check „I want to use a Datacolor Tools Standard“ only Datacolor Tools standards are displayed to select from. The batches linked to this standard are listed in the set of Batches“ tab. They are already selected if „Automatically include new batches“ is checked as well. In this case, it is not possible to remove batches from the list. This is only possible if „Automatically include new batches“ is not selected.

Standard

Selection box with the selected standard.

If you do not select a standard, the program calculates the average of all batches and uses this as the theoretical standard for the pass/fail decision.

Measure

Start button for the measurement. Refer to [Measurement on page 5-20](#).

Table:

You can set filters to reduce the number of batches that are displayed for selection. A filter might be a specific folder or any user defined field you have created either with Datacolor Tools or with Datacolor SORT.

Tapering Parameters Tab

Sort Job Maintenance

New Sort Job Wizard | Script and Filter | Set of Batches | **Tapering Parameters** | View Options | Output Options

Tapering Parameters
You have decided to taper. What type of tapering do you prefer?

Sort by

☒ Color
☐ dL(CMC)
☐ dC(CMC)
☐ dH(CMC)

Tapering Method

☐ Next Neighbour
☒ Linear Path
☐ Minimum Path

Start a new taper sequence if distance [CMC] greater than

OK Abbrechen Übernehmen Hilfe

Parameters

Sort by

Color	Samples are sorted by color. All three dimensions are used (dL, dC and dH).
dL(xxx)	Samples are sorted by dL only. (xxx) = placeholder for selected Pass/Fail formula (1 dimensional).
dC(xxx)	Samples are sorted by dC only. (xxx) = placeholder for selected Pass/Fail formula (1 dimensional).
dH(xxx)	Samples are sorted by dH only. (xxx) = placeholder for selected Pass/Fail formula (1 dimensional).

dL(xxx) plus dC(xxx) or dH(xxx)

Samples are sorted by dL plus dC or dH.

(xxx) = placeholder for selected Pass/Fail formula
(2 dimensional).

Start a new taper if distance (xxx) is greater

This tolerance defines the distance between the batches. If the distance is above the limit, a new taper starts. If "Color" is selected as the sort type, the limit corresponds to a color difference dE(xxx).

We call the limit a distance because it is not a real color difference if you select a 2-dimensional sort, e.g. dL plus dC. The distance represents in this case:

$$Maxdis = \sqrt{dL(xxx)^2 + dC(xxx)^2}$$

(xxx) = placeholder for selected Pass/Fail formula

Tapering Method

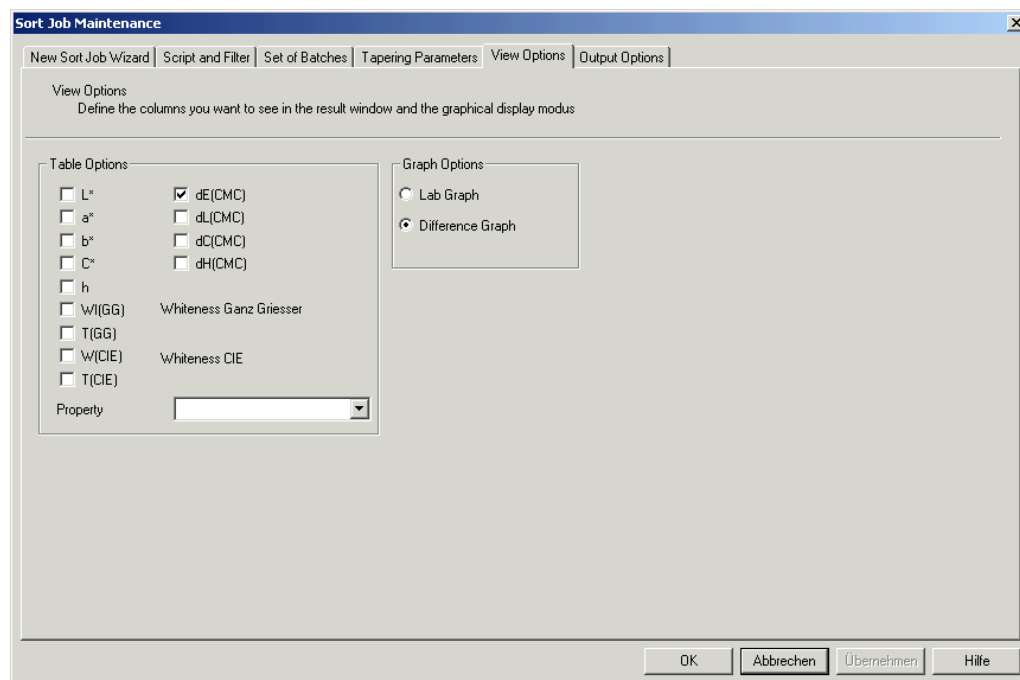


Note

The program starts tapering with a batch that has a connection to a compatible cluster. This allows a taper to be built across the cluster borders

Next neighbor	The program searches for the closest next batch.
Linear path	The program calculates a regression line and tapers the batches along this line.
Minimum path	The program calculates the total distance of all batches of a taper path using "next neighbor" and "linear path" methods. The method with the lower total distance is selected as the "Minimum Path".

View Options Tab



In the „View Options“ tab, you can define what you would like to see in the results window.

Output Options Tab

The screenshot shows the 'Sort Job Maintenance' dialog box with the 'Output Options' tab selected. The dialog has a title bar with a close button. Below the title bar is a tabbed interface with tabs for 'New Sort Job Wizard', 'Script and Filter', 'Set of Batches', 'Tapering Parameters', 'View Options', and 'Output Options'. The 'Output Options' tab is active and contains the following elements:

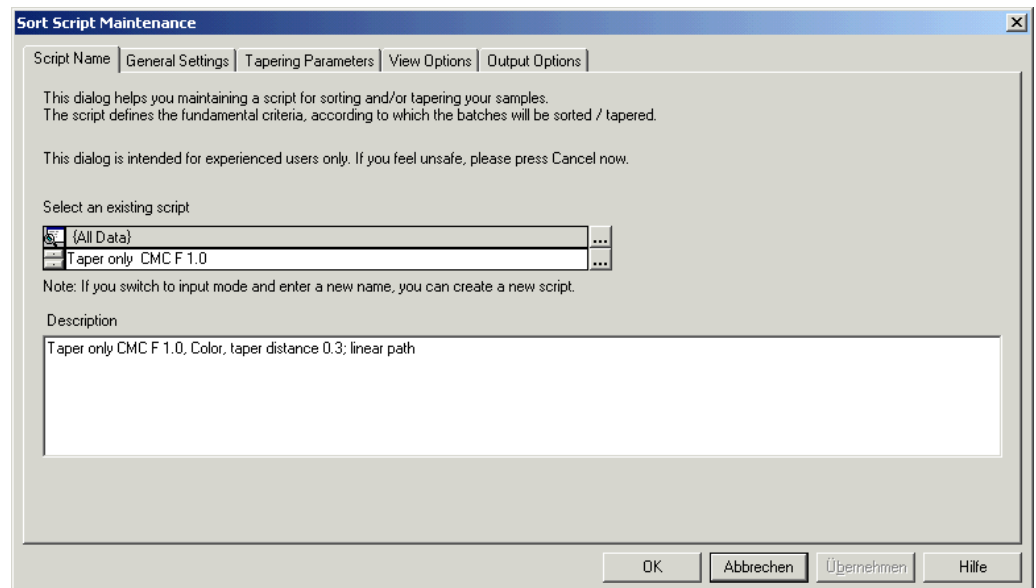
- Output Options**
How do you want your output to be sorted and identified?
- Print Output Sort Order**
 - ☒ By Group/Taper code
 - ☐ By Sample Name
- Group Codes**
 - ☐ 1, 2, 3...
 - ☒ A, B, C... First Group Code
 - ☐ L*a*b* code
- Taper Codes**
 - ☒ 1, 2, 3...
 - ☐ A, B, C... First Taper Code
- Group/Taper Separator**

At the bottom right of the dialog are four buttons: 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe'.

The last wizard page is used to set up the output and to select the coding you would like to use for groups (clusters) and tapers. The print output sort order is linked to individual print forms. One is used to print the job ordered by Group/Taper code, and the second is sorted identically to the order you have displayed in the output screen. You can change the order in the output screen by clicking in the table columns.

Sort Script Maintenance Dialog Box

Script Name Tab



Parameters

Select an existing script	Selection box with the name of the sort script.
Description	Text box for an additional description of the sort script.

General Settings Tab

Parameters

Group only	The program builds subsets of samples (clusters, groups) that pass the pass/fail decision based on the selected formula and tolerance factor.
Taper only	The program searches for the best sequence of samples that pass the pass/fail decision based on the selected formula and tolerance factor.
Group and Taper	In the 1st step the program builds subsets of samples (clusters, groups) and in the 2nd step it tapers the samples in each cluster.
Tolerance	All tolerance formulas can be selected.



Note

M&S89 is optional. If M&S 89 is used you must select one of the M&S illuminants (msTL84-10, msD65-10, msA-10).
No results are displayed if other than ms-illuminants are selected.

Maximum distance[xxx] Batch to Standard

Tolerance factor (scaling factor) used for Pass/Fail. (XXX) is a placeholder for the selected formula.



Note

This scaling factor modifies the tolerance value set in the tolerance block.

Tapering Parameters Tab

Refer to [Tapering Parameters Tab on page 7-163](#).

View Options Tab

Refer to [View Options Tab on page 7-165](#).

Output Options Tab

Refer to [Output Options Tab on page 7-166](#).

Sample Property Dialog Box

Sample Property Tab

Sample Property | Property

Standard: Bordo

Batch: 200205-E4180709-089

Property:

- Bat_Fabric_Wwidth
- BAT_FabricLength**
- BAT_IMAGE
- Length
- Quality Type

Value

44.0

Save

OK Cancel Help

Parameters

Standard	Standard, the sample is related to.
Batch	Batch, the sample is related to.
Property	Properties specified for the sample.
Value	Value of the selected property.

Property Tab

Property

Property type

☐ Standard ☒ Batch ☐ Difference ☐ System

Name: BAT_FabricLength

Data type

☐ String ☒ Float ☐ Double
☐ Long ☐ Integer ☐ Calculation

☒ Store to database Length: 0
☒ Required Precision: 1
☒ Datacolor Tools input field Default:

Description: Batch fabric length

Save Delete

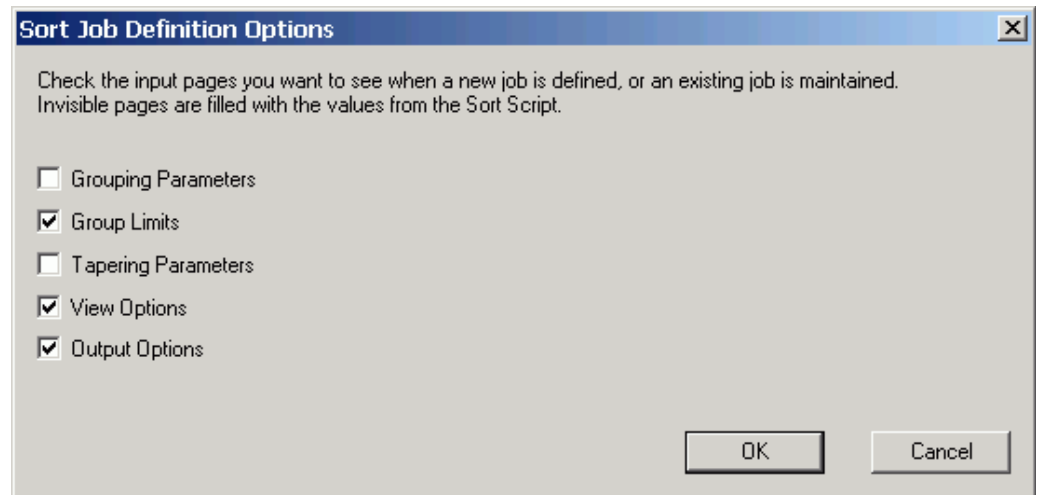
OK Cancel Help

Parameters

Property type	Selection of the property type.
Name	Selection (or input) of the name.
Data type	Selection of the data type.
Store to database	If checked, the property is stored in the database.
Required	If checked, the value must be filled in (mandatory field).
Database Tools input field	If checked, the field is defined as input field in Datacolor TOOLS.
Length	Length of a field of type „String“.
Precision	Defines the number of decimals.
Default	Field for setting a default value.
Description	Description of the property.

Sort Job Definition Options Dialog Box

In the sort job definition options dialog box can be specified, which dialog boxes of the „Sort Job“ wizard and tabs of the „Sort Job Maintenance“ dialog box are displayed for specifying and modifying sort jobs. The invisible tabs are filled with the corresponding data of assigned sort script.



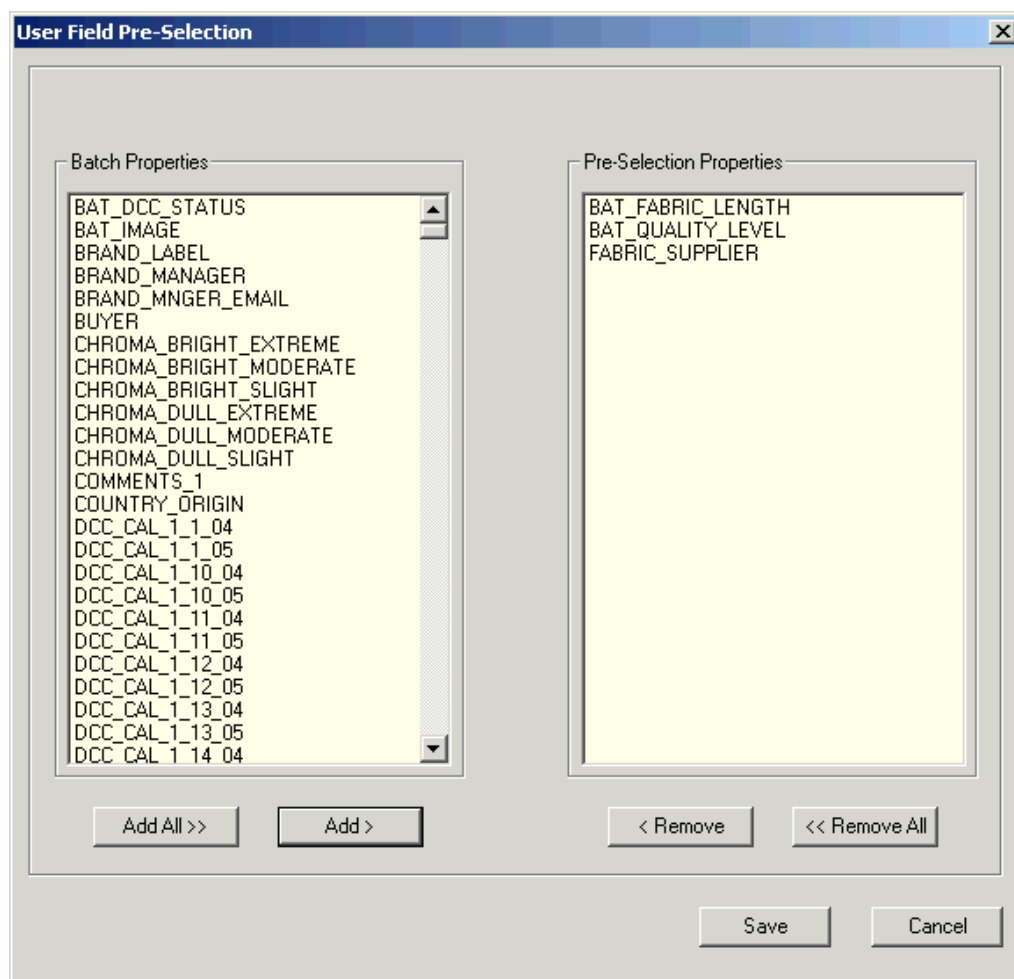
Note

If you want to be sure that a user works only with the predefined settings of the sort script, you have to limit the access rights, respectively.

Login as User „DCI“ and run the option „User Administration“
(Menu Tools → User Manager → User Administration).

User Field Pre-selection Dialog Box

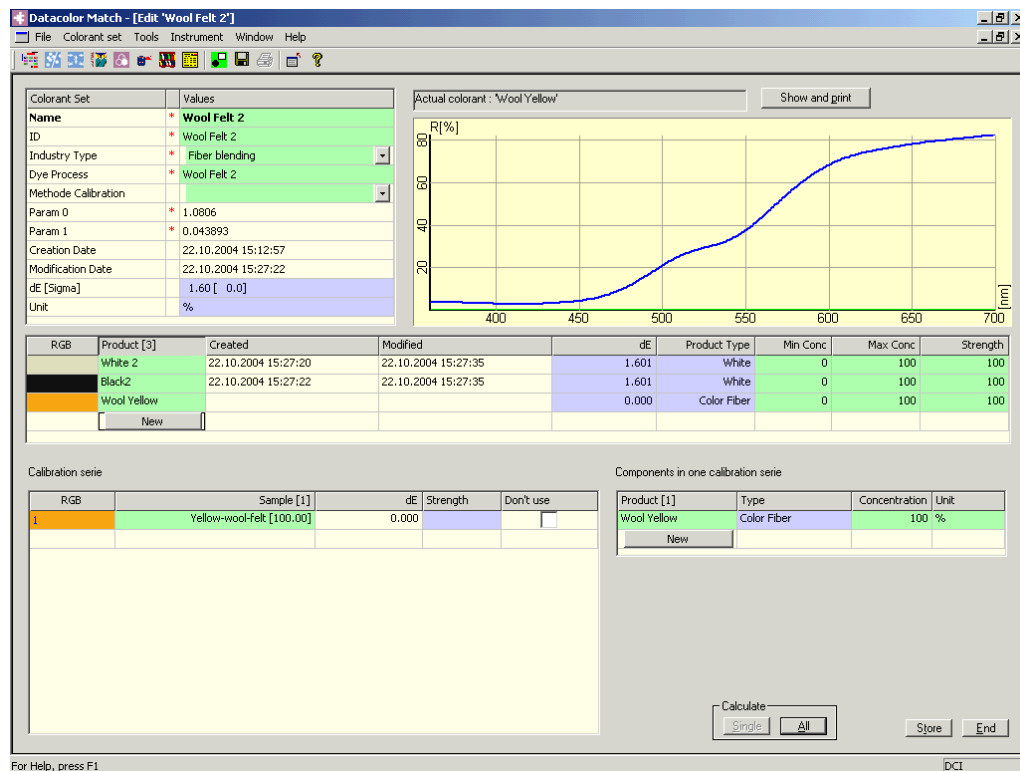
The „User.fld“ file may contain many fields that cannot be used by Datacolor SORT. This task is used to select only relevant user defined fields for Datacolor SORT.



Refer to [Pre-Selections of User Defined Fields on page 5-132](#).

Datacolor BLEND (Option)

Blend Fiber Set Window



Color codes of the fields

Green	Values that can be modified. Select the field and press the space bar.
Blue	Values calculated while opening the window.
Pale yellow	Values that cannot be modified.
Red *	Mandatory fields.

Buttons

Show and Print	Prints the complete set of data. The print-out is based on a print form.
Calculate	
Single	The selected colorant is recalculated.
All	All colorants of the colorant set are recalculated.
Store	Saves the colorant set.
End	Closes the window. If data has been changed, a dialog box with a save request appears.

Header Information

Name	Unique name of the fiber set.
ID	Unique identification of the fiber set.
Industrie Type	Type of the dyeing process. Value: „Fiber Blending“.
Type Process	Dye process name.
Method Calibration	„Rohner Function“ or „Approximation“.
Param 1	Parameter 1
Param 2	Parameter 2
Creation Date	Date of creation.
Modification Date	Date of last modification.
dE (Sigma)	Delta E: color difference (sample - theory) and standard deviation dependent to the calibration method.
Unit	Unit used for the concentration.

Graphical Display

Graphical view of the calibration results: Values and units of the axis are displayed according to the selected analysis.

Context-sensitive menus

Reset	Resets the “Zoom” and “With Origin” settings.
Change Color	Refer to Customizing Graphs on page 4-30 .
Change Printer Color	Refer to Customizing Graphs on page 4-30 .
With Origin	If checked, the current graph is displayed with the coordinate zero point.
Grid	If checked, a grid is displayed.
Fonts	Opens the “Font” dialog box used to define the font for the graph. Useful for “R% and K/S vs. Wavelength” graph.
Points	If checked, the measurement points are displayed.
Log View	The graph is based on logarithmic values.
More	Refer to Customizing Graphs on page 4-30 .
Visible Curves	List of all curves. The curves may be selected or the selection can be canceled using a mouse click.

Clicking on a curve:

Select	Selects a curve. The measurement points are displayed with a greater diameter.
Hide	Hides the selected curve.
Do not use this point/Use this point	(not used for colorant set program) The selected point is either used or not used for calibration. The point is displayed in a red color if it is not used.
Restore all points	Resets all points. Only used for “Reflectance of Calibration Samples” and “Absorptions of Calibration Samples” graphs.

Fiber Table

RGB	Color display.
Product	Unique name of the product. The header contains the number of listed products.
Created	Date and time of creation.
Modified	Date and time of the last modification.
dE	Delta E: color difference between current samples and the theoretical values. A red background indicates that there are no selected or measured calibration samples.
Product Type	White, Black or Colored.
Min. Conc.	Specification of the minimum concentration.
Max Conc.	Specification of the maximum concentration.
Strength	Product strength in percents.
New (button)	Click to add a new fiber.

Calibration Series Table

Results of the calibration series. The first column displays the color of each sample.

RGB	Color display.
Sample	Unique name of the sample. The header contains the number of listed samples.
dE	Delta E: color difference dependent to the calibration method.
Strength	Relative strength in percents.
Do not use	If checked, the sample is not used for the calculation.
CNew (button)	Click to add a new calibration sample.

Components in One Calibration Series (Table)

Product	Unique name of the product. The header contains the number of listed products.
Type	Product type.
Concentration	Numeric value of the concentration.
Unit	Unit used for the concentration.
New (button)	Click to add a new product.

BLEND Match Dialog Box

General Parameters

Standard **Protected.** Display of the selected standard.

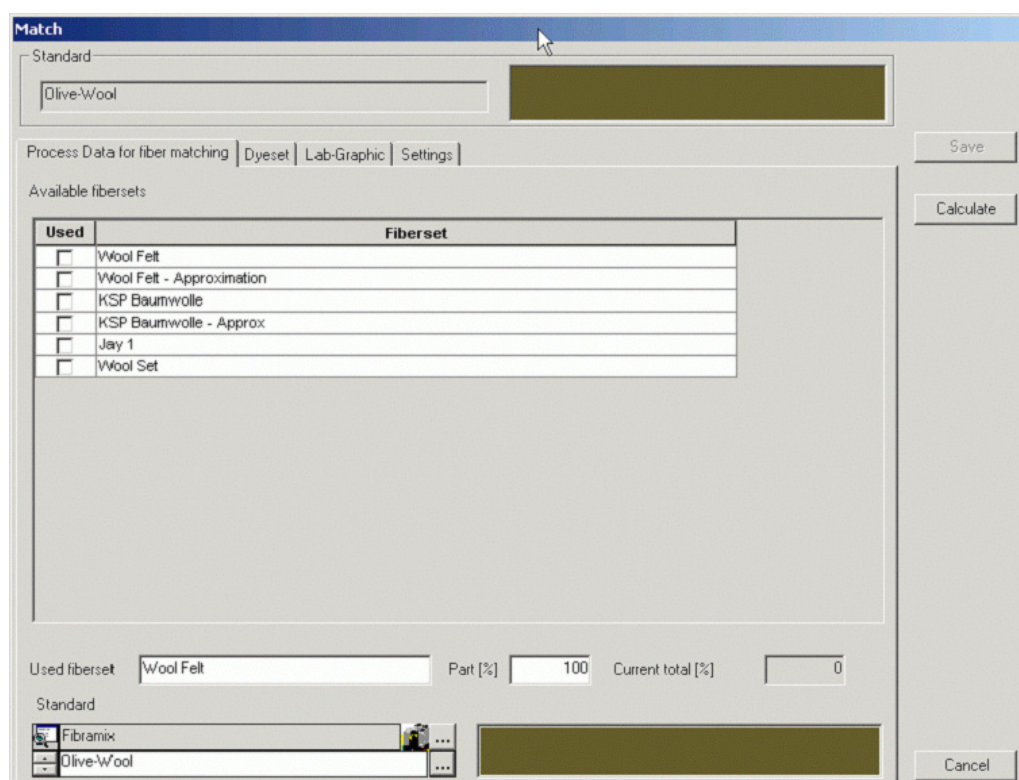
General Buttons

Save Saves a manually created recipe. Refer to “Fixed” parameter in [Colorant Set Tab on page 7-118](#).

Calculate Starts the recipe calculation. Refer to [Calculation of A New Recipe Series on page 5-69](#).

Cancel Closes the dialog box without saving. **Data that not has been saved will be lost.**

Process Data for Fiber Matching Tab



Parameters

Available Fiber sets Table with the specified fiber sets.

Used Dye Set Selected fiber set.

Part Part of the selected fiber set. Refer to [Recipe Calculation with several Fiber Sets on page 5-144](#).

Current Total [%] Display of the currently used part.

Standard Section of the Standard to be used.

Dye Set Tab

Match

Standard

Olive-Wool

Process Data for fiber matching | Dyeset | Lab-Graphic | Settings

Fiberset: Wool Felt | Part [%]: 100

Batch and color difference

{All Data}

Share: | Max Of Share: | --> R%

dE/Mi theory to standard

dE/Mi theory to batch

Selection:

0/1	A/S/N	Dyestuff	Shown : 14 selected : 5	Compul	Fixed	Min.(100%)	Max.(100%)	Relation
1		Wool-white-felt	<input checked="" type="checkbox"/>	<input type="checkbox"/>			100	
2		Black-wool-felt	<input checked="" type="checkbox"/>	<input type="checkbox"/>			100	
3		Yellow-wool-felt	<input checked="" type="checkbox"/>	<input type="checkbox"/>			100	
4		Orange-wool-felt	<input type="checkbox"/>	<input type="checkbox"/>			100	
5		Red-wool-felt	<input checked="" type="checkbox"/>	<input type="checkbox"/>			100	
6		Blue-wool-felt	<input checked="" type="checkbox"/>	<input type="checkbox"/>			100	
7		Navy-wool-felt	<input type="checkbox"/>	<input type="checkbox"/>			100	
8		Grey-wool-felt	<input type="checkbox"/>	<input type="checkbox"/>			100	
9		Brown-wool-felt	<input type="checkbox"/>	<input type="checkbox"/>			100	

Group

System | Delete | Save

Save | Calculate | Cancel

Parameters

Fiber Set

Protected. Selected fiber set.

Batch and Color Difference

Selection of the Batch.

Share / Max. of Share

Shows the part (in %) of the current fiber set and the current summary (in %) of all selected fiber sets.

Group

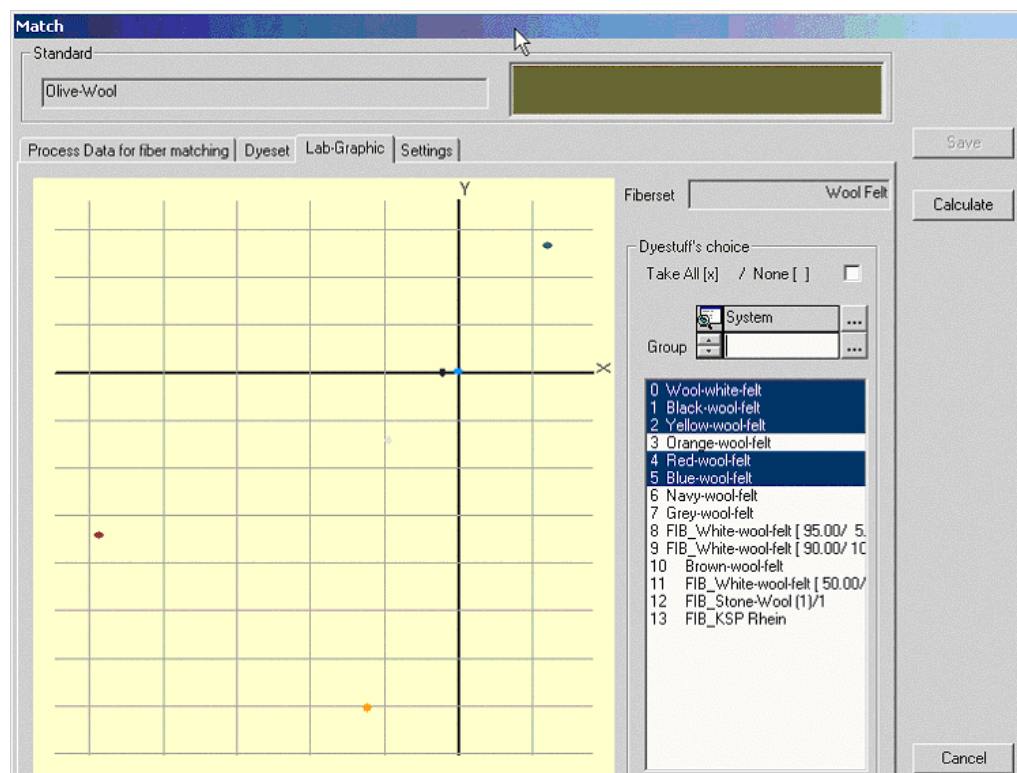
Selection or definition of dyestuff groups. The **Save** button saves the group with all settings of the „Selection“ table. The **Delete** button deletes a group with all settings.

Refer to [Calculation of A New Recipe Series on page 5-69](#).

Table for fiber selection.

Refer to [Recipe Calculation with several Fiber Sets on page 5-144](#).

Lab Graphic Tab



Graph

XY-Graph for the standard and all selected fibers. A recipe can be calculated, if the standard is inside of all possible triangles that can be drawn between each combination of three fibers.

Parameters

Fiber Set	Protected. Selected Fiber Set.
Take all	Check the box if all fibers are to be used.
Group	Selection or definition of dyestuff groups. The Save button saves the group with all settings of the „Selection“ table. The Delete button deletes a group with all settings. Refer to Calculation of A New Recipe Series on page 5-69 .
Box for fiber selection	Refer to Recipe Calculation with several Fiber Sets on page 5-144 .

Settings Tab

Refer to [Settings Tab on page 7-120](#).

BLEND Recipe Calculation Result Table

DCIMatch - [Olive-Wool - 001]															
File Table Tools Instrument Window Help															
Standard Olive-Wool															
Formula Cielab Default[D65,A,F11]															
dE* D65	1	0.56	0.57	0.62	0.62	0.63	0.67	0.67	0.74	0.76	0.79	1.49	1.70	1.85	2.29
dE* A	0	0.56	0.55	0.61	0.58	0.58	0.63	0.65	0.70	0.78	0.70	1.44	1.56	1.69	2.28
dE* F11	0	0.61	0.61	0.70	0.67	0.67	0.71	0.73	0.78	0.82	0.78	1.49	1.71	1.87	2.35
dE* Average	0	0.57	0.58	0.64	0.63	0.63	0.67	0.68	0.74	0.79	0.76	1.47	1.66	1.80	2.31
Metamerism A	0.7	0.05	0.07	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.08	0.22	0.23	0.13
Metamerism F11	0	0.17	0.17	0.18	0.17	0.17	0.16	0.16	0.16	0.17	0.14	0.09	0.06	0.04	0.25
CMCCON02 A	0	3.00	2.99	2.98	2.98	2.98	2.97	2.97	2.97	2.98	2.95	2.91	2.82	2.79	2.97
CMCCON02 F11	0	2.11	2.12	2.14	2.13	2.13	2.11	2.11	2.09	2.13	2.10	2.06	2.05	2.04	1.86
Price	0	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.65	1.66	1.60	1.82	1.83	1.67
Total concentration (%)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Trial	XX														
Dyestuff	1(3)	2(4)	3(3)	4(2)	5(4)	6(4)	7(4)	8(4)	9(4)	10(4)	11(4)	12(4)	13(4)	14(2)	
Wool-white-felt			0.0000				0.0001			0.1306	0.0014		0.0001		
Black-wool-felt	29.4717	29.7363	30.1544	30.3211	30.2186	28.0384	27.6538	26.0062	28.9741	30.7579	26.4411	25.9293	25.5401		
Yellow-wool-felt	69.5161	69.5665	69.8456	69.6789	69.6681	69.8763	69.9470	70.0170	69.1112	69.1113	66.0323	63.9749	63.2585	72.3544	
Orange-wool-felt								0.0000	0.0005	0.0002					
Red-wool-felt		0.0000													
Blue-wool-felt	1.0122	0.6972													
Navy-wool-felt					0.0927	2.0817	2.3991	3.9768							27.6456
Grey-wool-felt						0.0036			1.9142		7.5252	0.0112			
Brown-wool-felt					0.0006							10.0846	11.2013		
Recipe with D65															
Standard with D65															

Refer to [Recipe Calculation on page 5-142](#) and [Recipe Correction on page 5-148](#).

BLEND Correction Dialog Box

General parameters

Standard

Protected. Measured fiber blending.

Buttons

Correction

Opens the "BLEND Correction Recipe Correction" dialog box.

Datacolor Tools

Opens the "Datacolor Tools" application for color quality control. Standard and batch are transferred automatically from the Datacolor MATCH^{Textile} database to the Datacolor Tools database.

Evaluate

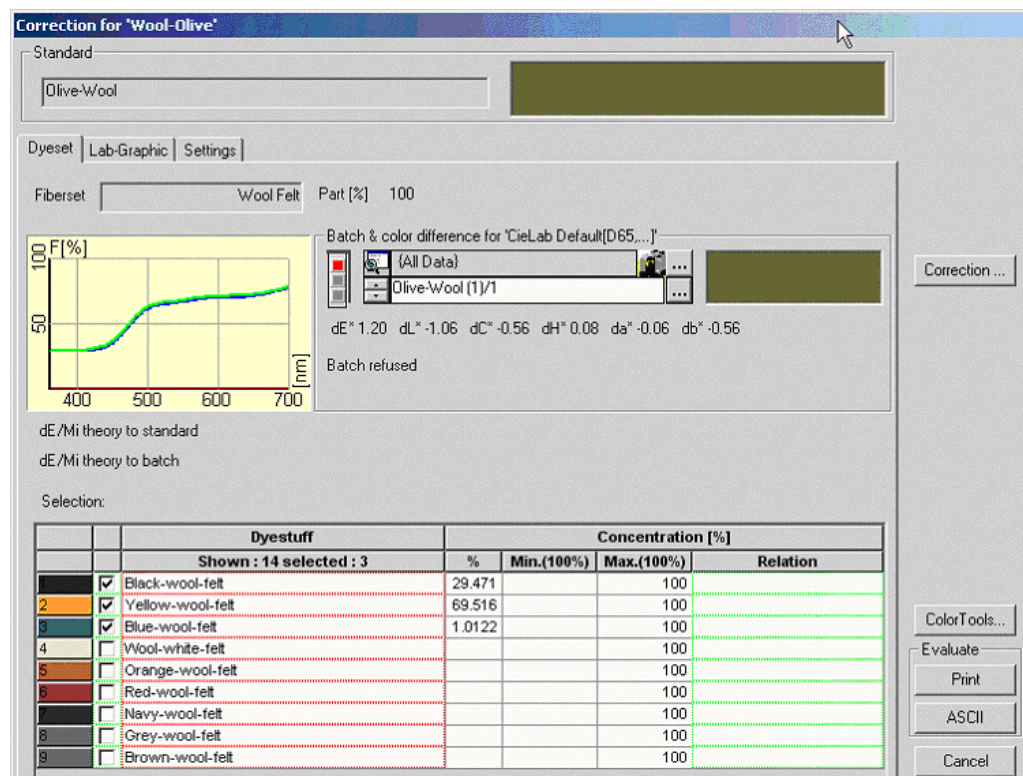
Print: Displays the colorimetric data in a print preview.

ASCII: Creates a text file using a specified form. Refer to [ASCII Output \(Option\) on page 4-20](#).

Cancel

Closes the dialog box without saving. **Data that not has been saved will be lost.**

Dye Set Tab



Parameters

Fiber set

Protected. The fiber set name and the part of the corresponding fibre set (in %) are displayed on the top.

Batch and Color Difference

Selection of the measured sample produced according to the recipe to be corrected.

Information line:

Differences (dE and dL) between standard, batch, and "Dif. Formula".

On the left, a graphical view of the differences is displayed. If the differences are out of tolerance, the message „Batch refused“ appears and the traffic light is red.

Table:

Selection of dyes. Refer to [Preliminary Work on page 5-69](#), section [Selecting dyestuffs for matching on page 5-71](#).

Lab Graphic Tab

Refer to [Lab Graphic Tab on page 7-178](#).

Settings Tab

Refer to [Settings Tab on page 7-120](#).

BLEND Correction Recipe Dialog Box

Correction for 'Wool-Olive'

Standard: Olive-Wool

Batch: Olive-Wool (1Y1)

Smartmatch: ☒ (All Data) ☐ Total batch ☐ First dyeing

Fibre

Add new dyestuff(s): User selected

Dyestuff	Recipe	New recipe	+ Amount	Effect	Ref. %
Black-wool-felt	147.359	134.191	-0.000 kg	1.08	-0.00
Yellow-wool-felt	347.581	352.898	39.902 kg	0.98	11.48
Blue-wool-felt	5.061	12.851	9.162 kg		181.03
Total	500.000	500.000	49.06327 kg		
Batch to drop	0.000				

Total batchsize: 500 kg New batchsize: 549.063

CieLab Default(D65,...)

Illuminant	delE/MI	New delE/MI	delL/ML	delC/MC	delH/MH
dE D65	1.20	0.27	-0.10	0.14	0.20
Met A	0.08	0.07	0.02	0.05	0.05
Met F11	0.05	0.04	0.00	-0.04	-0.01

Graph: R[%] vs [nm] (400 to 700 nm)

Evaluate: Scale back by: 0 %

Computer add: Compute to limit: 0 dE Limit

Buttons:

Standard

Measured fiber blending.

Batch

Measured sample produced according to the recipe to be corrected.

SmartMatch in Production:

Used to save a production SmartMatch point.

Total Batch

Check the box if the batch is measured with all fibres.

First Dyeing

Check the box if it is the first correction of the recipe and a SmartMatch point should be saved. This function is only enabled if checked.

Fibre tab

Recipe table:

1st column

Color display.

Dyestuff

Names of the fibers.

Recipe

Values of the original recipe. (Absolute amount of dye lot)

+ Amount

Values of the correction.

Effect

Effect factor for the recipe calculation (performance between original and batch recipe).

Rel. %

Relative correction for the single dyestuff (Addition in %).

Total Batch Size

Batch size for the calculated correction.

New Batch Size	Fibers have to be added to correct the color. The batch size becomes bigger than the total batch size. About 50 kg must be added in the example to correct the color.
The table and the graph show the colorimetric data.	
Evaluate (buttons)	Print: Displays the colorimetric data in a print preview. ASCII: Creates a text file using a specified form. Refer to ASCII Output (Option) on page 4-20 .
User Add (scale back by)	Used to reduce the "+ Amount" by value in %.
Computer Add:	Used for absolute tolerance specification.
Optimal dE	Optimizes dE only with positive adds. Removes all negative adds.
Min. Add. / dE (button)	Recalculates the correction using the dE limit given in the "Compute To Limit" field. dE must be higher than the dE limit.
Min. Add. / dH (button)	Recalculates the correction using the dH limit given in the "Compute To Limit" field.

Buttons

Cancel	Closes the dialog box without saving. Data that not has been saved will lost.
Show	Opens a print preview.
Print	Prints the correction data.
ASCII Export	Saves the correction data to a file in the ASCII format. Refer to ASCII Output (Option) on page 4-20 .
Save	Saves the fiber blend recipes.

BLEND Fast Correction Dialog Box**General parameters**

Standard	Selected color to be dyed (target color).
----------	---

Buttons

Save	Saves the correction data.
Correction	Used for recalculating the recipe. Opens the "BLEND Correction Recipe Dialog Box" dialog box.
Datacolor Tools	Opens the "Datacolor Tools" application for color quality control. Standard and batch are transferred automatically from the Datacolor MATCH ^{Textile} database to the Datacolor TOOLS database.
Evaluate	Print: Displays the colorimetric data in a print preview. ASCII: Creates a text file using a specified form. Refer to ASCII Output (Option) on page 4-20 .
Cancel	Closes the dialog box without saving. Data that not has been saved will be lost.

Process Data for Fiber Matching tab

Fast correction for

Standard: Olive-Wool

Process Data for fiber matching | Dyeset | Lab-Graphic | Settings

Available fibersets

Used	Fiberset
<input type="checkbox"/>	KSP Baumwolle
<input type="checkbox"/>	KSP Baumwolle - Approx
<input type="checkbox"/>	Wool Felt
<input type="checkbox"/>	Wool Felt - Approximation

Used fiberset: Wool Felt Part [%]: 100 Current total [%]: 0

Standard: Fibramix

Standard list: Fibramix, Olive-Wool

Buttons: Save, Correction ..., DCTools..., Evaluate, Print, ASCII, Cancel

Parameters

Available Colorant Set	Selection table with the assigned fiber sets. Select fiber sets by checking the box.
Used Fiber Set(s)	Table with the selected fiber set. Remove a fiber set using a double-click on the name cell.
Part	Part of the selected fiber set. Refer to Recipe Calculation with several Fiber Sets on page 5-144 .
Current Total [%]	Display of the currently used part.
Standard	Section of the Standard to be used.

Colorant Set tab

Fast correction for 'Olive-Wool - 001'

Standard: Olive-Wool

Process Data for fiber matching | Dyaset | Lab-Graphic | Settings

Fiberset: Wool Felt | Part [%]: 100 | Batchsize: Amount input

Batch & color difference for 'CieLab Default[D65]'

dE* 1.20 dL* -1.06 dC* -0.56 dH* 0.08 da* -0.06 db* -0.56

Batch refused

Share: 100.00 | Max Of Share: 92.23 | --> R%

dE/Mi theory to standard: 1.33/5.60
dE/Mi theory to batch: 1.20/4.95

Selection: ☐ SM-Analyse

0/1	Dyestuff	Concentration [%]			
	Shown: 12 selected: 3	%	Min.(100%)	Max.(100%)	Relation
1	<input type="checkbox"/> Wool-white-felt			100	
2	<input checked="" type="checkbox"/> Black-wool-felt	26.840		100	
3	<input checked="" type="checkbox"/> Yellow-wool-felt	70.569		100	
4	<input type="checkbox"/> Orange-wool-felt			100	
5	<input type="checkbox"/> Red-wool-felt			100	
6	<input checked="" type="checkbox"/> Blue-wool-felt	2.5899		100	
7	<input type="checkbox"/> Navy-wool-felt			100	
8	<input type="checkbox"/> Grey-wool-felt			100	
9	<input type="checkbox"/> Brown-wool-felt			100	
10	<input type="checkbox"/> Black Master			100	

DCTools...
Evaluate
Print
ASCII
Cancel

Fiber Set

Protected. A „Fiber Set“ tab is displayed for each colorant set. The colorant set name and the part of the corresponding fibre (in %) are displayed on the top.

Batch Size:

If „Amount Input“ is checked, the absolute amount of concentration is entered.

Batch and ...

Selection of the measured fiber set sample according to the recipe to be corrected.

Information line:

Differences (dE and dL) between standard, batch, and „Dif. Formula“.

On the left, a graphical view of the differences is displayed. If the differences are out of tolerance, the message „Batch refused“ is displayed and the traffic light is red.

SM Analysis

SmartMatch analysis (graphical display and SmartMatch result table). Color differences (standard/batch) according to the formula used for recipe calculation.

Total batch

Check the box if the batch is measured with all fibres.

SmartMatch Point

Selection of laboratory or production for the SmartMatch point insertion.

Table:

Dyestuffs selection and concentration input.

Lab Graph tab

Refer to [Lab Graphic Tab on page 7-178](#).

Settings tab

Refer to [Settings Tab on page 7-120](#).

8

Glossary



Note

References to other glossary entries are written in *italics*.

Absorption	The conversion of light or other electromagnetic radiation into heat energy. This light energy cannot be reflected back to an observer. The selective absorption of light is responsible for our perception of color.
Affinity	The affinity group is an optional field that is used to group qualities with the same dyeing properties.
Auxiliary	Chemicals to used for dyeing, finishing, etc.
Calibration data	Concentrations of dyestuffs and blank dyed <i>Substrate</i> which (when measured with the spectrophotometer) become part of the match prediction database in the form of colorant sets.
Calibration sample	Measured sample dyed with defined concentration and dye strength. The data of calibration samples are used for recipe calculation and correction. Calibration samples are used to calculate the calibration data (K/S) for each dyestuff used for recipe calculation and correction.
Color inconstancy	Color inconstancy is the color difference if a single sample is illuminated with different light sources. The magnitude of color inconstancy can be defined by DE CMC (or any other color difference formula) of the sample between two light sources.
Colorant set	<p>A colorant set is a set of color information about the <i>Substrates</i> and dyes the system uses to produce match and correction recipes. It contains...</p> <ul style="list-style-type: none"> information about the overall colorant set, e.g., the substrate(s) and process(es) that will be used with the dyes; product information about each dye, e.g., price and specific gravity (density); color information about each dye; <p>information about the qualities used with the colorant set.</p>
Color index	The color index is produced jointly by SDC (Society of Dyers and Colourists) in the UK, and the AATCC (American Association of Textile Chemists and Colorists) in the USA. The index is split into two parts: one part gives the commercial names for the individual dyes; the other part of the index gives the color index number, and lists the commercial names for the dyes using that number. Refer to <i>Color index number</i> .
Color index number	<p>Every dye is given a color index number based on its chemical type. The same number is given to the dyes with the same chemical structure. For example, Resolin Red FB and Dispersol Red B2B, both have the color index number "CI Disperse Red 60."</p> <p>The index number is divided into four sections:</p> <ul style="list-style-type: none"> CI stand for color index and is displayed in every color index number The next section is the dye type, e.g., Disperse, Acid, etc. The third section is the color, according to a defined list of color names, e.g., Red Yellow, Orange The last number is increased every time a new dye is added to the index; in the example above, "CI Disperse Red 60" is the 60th red disperse dye to be added to the index. Refer to <i>Color index</i>.
Colorant	A coloring matter; a dye, a pigment or an ink.
Color type	Measured color of a sample. The color type is the target color to be dyed.

Combined process	A combined process is used to describe the entire dyeing process either for laboratory or production. A treatment is generated for each calibration dye process type (e.g., Exhaust, Continuous,) linked to the combined process.
Correction	<p>Datacolor MATCH^{Textile} supports three types of correction:</p> <ul style="list-style-type: none">• Laboratory correction: The existing recipe is altered and saved again. Every additional laboratory correction reduces the differences to the color sample.• Production correction: An additional recipe is calculated that is used to change the color of the dyed batch to the correct color.• Fast correction: Used for a production correction without an existing recipe. It is based on a theoretical calculated recipe of the standard.
Dye class	Classification of dyes according to the chemical composition and reaction, e.g., disperse, reactive.
Dye fiber group	Group of fibers dyed in the same bath with the same dyestuffs, e.g. Cotton/Viscose.
Dye process	The dye process contains Dye class , Process type and Process factor . The dye process is associated with combined process and colorant set.
Dye strength	The attribute of color which increases the concentration of the Colorant , all other conditions remaining the same.
Dyestuff type	Description of the dyestuff, e.g. gran., conc., supra. The dyestuff type is used to specify the dyestuff name.
Fast correction	Refer to Correction .
Fiber	Single fiber to be dyed.
Fiber group	All fibers used for a Quality / Style . A fiber group can be a single fiber or a combination of different fibers, e.g., PES, PES/CO.
K	Kubelka Munk coefficient of Absorption . The optical property that describes the absorption of light by a colorant or mixture of colorants.
K/S	A ratio of the Kubelka Munk constants, K (coefficient of Absorption), and S (coefficient of Scattering).
Kubelka Munk theory	A theory that describes the optical behavior of materials which scatter and absorb radiant energy.
Laboratory correction	Refer to Correction .
Metameric match	Two samples which match under one set of conditions but no longer match on changing one or more of the conditions.
Metamerism	A pair of colors that match under one or more sets of conditions but differ markedly in color if you change one or more of the conditions. A metameric pair of samples have the same tristimulus values for a specific set of viewing conditions but have different reflectance curves.
Monotone data	Reflectance data of a dyestuff is manipulated for a non-linear build-up of K/S . It is used when an error in making a sample or contamination causes the build-up curve to dip and divert in the opposite direction to the general trend. Monotone means keeping the same slope as the general trend.
Off shade	Descriptive of a match that is commercially unacceptable.

Quality / Style	The quality is used to define the type of fabric you are going to dye. It contains a reference to the composition and describes whether the fabric is used for exhaust or continuous dyeing or both.
Operation	The operation specifies the sequence of action to be done during the dyeing. Actions may be parameters (e.g., temperature, volume,) or products (e.g., chemicals, etc.).
Parameter	The parameter values (e.g. "fastness") are defined in a colorant set for each dye, and used to set limits for the recipe calculation.
Process	Refer to Dye process and Combined process .
Process factor	In match prediction, used to take in account differences in dyestuff build up. The dye-stuff concentrations are multiplied with the process factor.
Process type	Values: Exhaust, Continuous, Cold Pad Batch .
Product	A Product is either a dyestuff or an auxiliary.
Production correction	Refer to Correction .
Recipe calculation	A process which identifies and calculates the amounts of each coloring matter in a material so that the final color looks like (i.e. matches) the given sample in a specified light source and price. It is possible to get several combinations which match the sample so the process can give the most cost effective one.
S	Kubelka Munk coefficient of Scattering . The optical property that describes the scattering of light by a Colorant or mixture of colorants.
Sample	Measured color stored with its spectral values.
Scattering	The diffusion or redirection of radiant energy encountering particles of a different refractive index.
Security key	Used by the software to decide which sections of the software are available on the computer, or workstation, it is attached to.
Settings	Parameters used for recipe calculation. Refer to Settings Tab on page 7-120 .
SmartMatch point	Information about a specific laboratory or production dyeing stored in the database. This information is used to improve first-time matching and correction.
SmartMatch population	A group of SmartMatch points which were all dyed on the same substrate using the same dyes.
Smoothed data	The reflectance data is manipulated in such a way that minor variations in the build-up of a dyestuff are eliminated by a least mean squared fit.
Specular reflectance	Light striking a surface and being reflected, or turned back, at an angle equal to the angle of incidence. The reflected light is specular reflectance.
Specular reflectance coefficient	A numerical term used to describe the value for the Specular reflectance when used in the Sauterson correction.
Standard	Measured color to be matched (target color). In Datacolor MATCH ^{Textile} , a standard becomes a color type.
Stock solution	Definition of different dilutions used for optimizing the accuracy of manual dyestuff pipetting and to prevent that the maximum of the dye solution is to be exceeded.
Substrate	The materials onto which Colorant is applied to obtain the desired shade.
Substrate blank dyeing	Dyeing without dyestuff but with all auxiliaries.

Substrate delivery	Specific substrate delivery. Small differences between different substrate deliveries may force corrections of the recipe.
Tolerance value	A numerical value used to determine the acceptability of a sample.
Treatment	A treatment consists of one or more operations describing the dyeing process for laboratory and/or production.

9

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