

EasyGroup



Hunter Associates Laboratory, Inc.

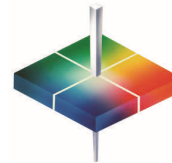
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User's Guide

EasyGroup



User's Guide
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The User's Guide for EasyGroup provides instructions for installing and operating the software.

Despite the best process control techniques, lot-to-lot production variations in textile dyeing are a fact of life. Grouping and tapering are post-production techniques that help minimize the perceived visual variation. Grouping combines production lots into clusters that are close enough in shade to be shipped together, and tapering arranges them in a minimum path sequence, in the order in which you would lay them out on a cutting table. The objective of both is to maximize utility of produced or available material.

Depending on the quality of the sample set available, grouping and tapering can also be combined to maximize utility. For



File/Print



File/Print report to file



View/Report



View/Split View



View/Graph



Run/Taper



Run/Group



Run/Group + Taper



Help/Help Topics

Advanced Menu

The Advanced menu contains the following commands:

Fewer groups - When Fewer groups is selected (checked), the mathematical algorithm that results in the fewest number of groups is utilized. If the setting is changed to Fewer groups, the samples must be grouped again for the change to be implemented.

Tighter groups - When Tighter groups is selected (checked), the mathematical algorithm that results in the tightest groups (closest in color values) is utilized. If the setting is changed to Tighter groups, the samples must be grouped again for the change to be implemented.

Help Menu

The Help menu contains the following commands:

Help Topics - This command opens the EasyGroup help file.

About EasyGroup - This command causes EasyGroup copyright and version information to be displayed.

The EasyGroup Toolbar

The buttons on the EasyGroup toolbar are shown below, along with the menu command that each emulates.



File/Open



File/Save

example, a larger Group Tolerance (see page 9) can be used in conjunction with tapering to utilize maximum possible material without any visual mismatch between the ordered lots.

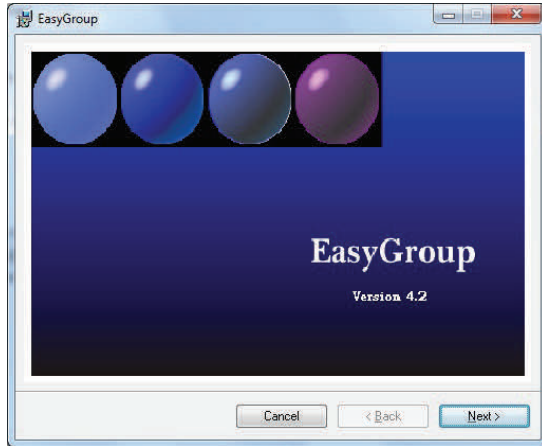
EasyGroup is a 32-bit application that will run on Windows XP, Vista Business/Ultimate and WIN 7 Professional 32 and 64 bit operating systems. EasyGroup uses color data obtained from EasyMatch QC Software to group and taper samples. To utilize all program features EasyGroup 4.20 and higher must be used with EasyMatch QC version 4.30 and higher.

Installing EasyGroup

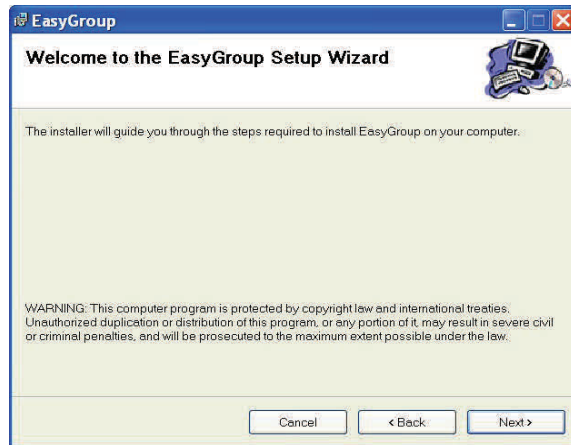
EasyGroup may only be installed on computers where EasyMatch® QC has already been installed. **If you are upgrading from an earlier version of EasyGroup, you will need to uninstall (remove) the previous version first through Windows' Control Panel.**

To install EasyGroup, complete the following steps:

1. Insert the installation CD into your CD-ROM drive. If your system is set up to automatically run CD programs, the setup program will begin automatically and you may skip to Step 5. Otherwise, continue with Step 2.
2. Click on the Windows **Start** button.
3. Select **Run** from the command list.
4. Type "D:\EasyGroup Setup.msi" and then press **Enter**. If your CD-ROM drive is assigned a designation other than drive D, use that letter in place of the "D" in this statement.
5. The following screen will be shown.



6. Click **Next**.
7. Click **Next** to continue to the next installation screen.



Make 3 groups by - This command divides the samples in the job into three groups based on the parameter chosen from the submenu (L^* , a^* , b^* , etc.).

Taper + 2 groups by - This command tapers the samples in the job, as well as divides them into two groups based on the parameter chosen from the submenu ($L^*a^*b^*$, etc.).

Taper + 3 groups by - This command tapers the samples in the job, as well as divides them into three groups based on the parameter chosen from the submenu ($L^*a^*b^*$, etc.).

Colors Menu

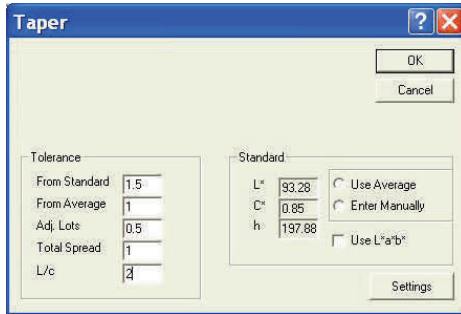
The Colors menu contains the following commands:

List Background - This command allows you to choose the color to use as the background for the report view. Use the screen that appears to make your selection.



Graph Background - This command allows you to choose the color to use as the background for the graph view. Use the screen shown above to make your selection.

Groups - These commands allow you to choose the color to associate with each group. Use the screen shown above to make your selection.



Taper - This command causes the data in the current EasyGroup file to be tapered based on the tolerances entered on the Taper screen. The report view shows the samples in the order into which they were tapered. The graph view connects the samples in their tapered order with lines.

Group - This command causes the data in the current EasyGroup file to be grouped based on the tolerances entered on the Group screen. The report view shows all the samples in each group listed together and the graph shows all the samples in each group in a single color indicated by the legend to the right of the graph. Items that do not fit into any group are listed in group “zero.”

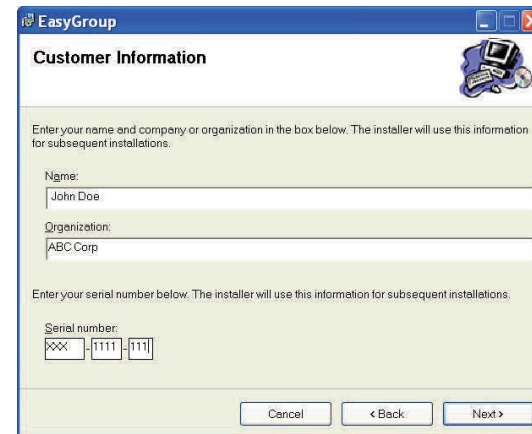
Group + Taper - This command causes the data in the current EasyGroup file to be both grouped and tapered based on the tolerances entered on the Group screen.

Sort by - This command causes the data in the report view to be sorted by the parameter chosen from the submenu (L*, a*, b*, etc.). This sorting may also be accomplished by clicking the column header for the parameter on which you wish to sort.

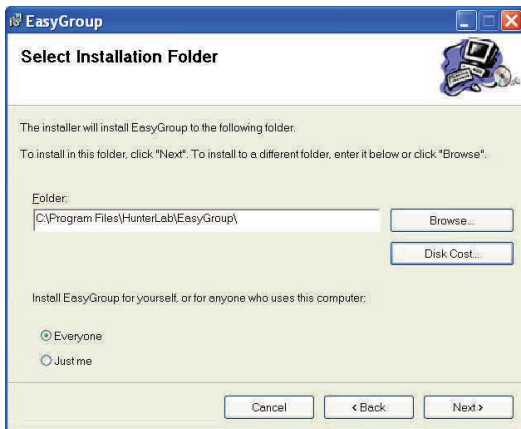
Make 2 groups by - This command divides the samples in the job into two groups based on the parameter chosen from the submenu (L*, a*, b*, etc.).



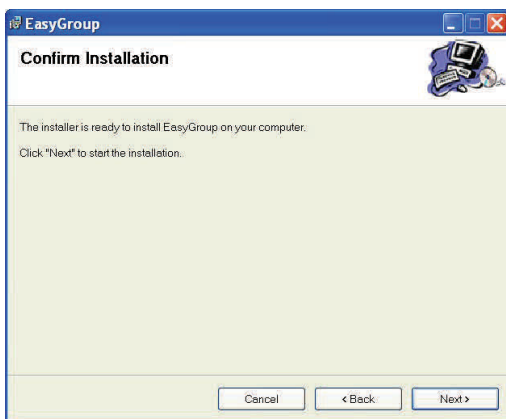
- This screen contains information on software licensing and rights. Read the information and click the radio button next to “I Agree,” and then **Next** to agree to the terms and continue to the next screen.



- This screen requires you to enter your name, company name, and the serial number that was provided on the CD case when you purchased the software. Do so, then click **Next**.

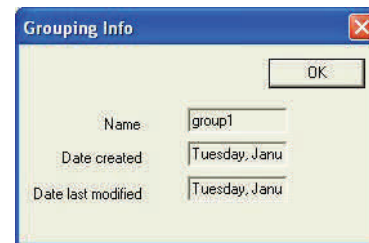


- This screen asks you where you would like to install the program files. Click **Next** to accept the location shown or **Browse** to choose another location. Click **Next** when the location shown is as desired.

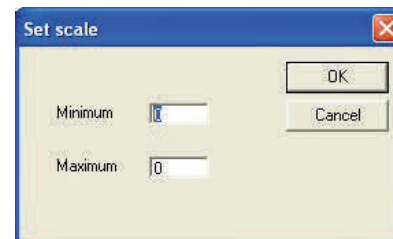


- Click **Next**.
- The needed files will be installed onto your system. A status bar is shown so that you can track the progress of the installation. The Setup Complete box appears when

Legend - Choose whether the graph's legend shows the colors associated with groups A to G, H to N, O to U, or V to Z.



Grouping Info - This command yields the screen shown below containing information on the current grouping once the grouping has been saved using the **Accept Groups** command in the **File** menu.



Scale X-axis - This command allows you to scale the x-axis of your graph using the following screen on which you can indicate the minimum and maximum values to display.

Scale Y-axis - This command allows you to scale the y-axis of your graph using the screen shown above on which you can indicate the minimum and maximum values to display.

Autoscale - This command causes the graph to be automatically scaled for optimal visibility of all the data.

Run Menu

The Run menu contains the following commands:

List of most recently used EasyGroup files - These commands allow you to quickly open the last group/taper files used.

Exit - This command allows you to exit and close EasyGroup.

View Menu

The View menu contains the following commands:

Toolbar - This command, when checked, causes the toolbar to be displayed at the top of the EasyGroup screen. When unchecked, the toolbar is removed from the screen.

Status Bar - This command, when checked, causes the status bar to be displayed at the bottom of the EasyGroup screen. When unchecked, the status bar is removed from the screen.

Report Options - This command opens a submenu from which you can choose to view color differences (Differences) in your report or absolute color values (Values). The checked item is selected.

L*C*h* Values - This command, when checked, causes L*C*h to be the color scale shown in the report view.

L*a*b* values - This command, when checked, causes L*a*b* to be the color scale shown in the report view.

Report - This command causes the report view to be maximized on the EasyGroup screen.

Graph - This command causes the graph view to be maximized on the EasyGroup screen.

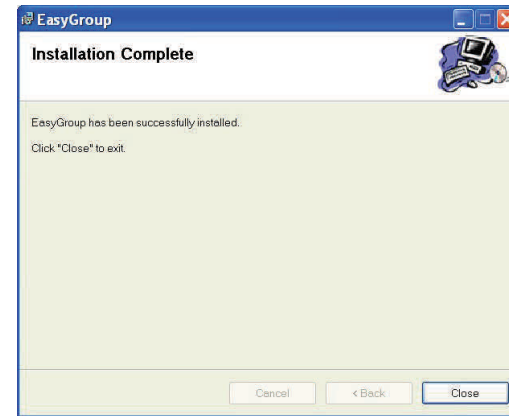
Graph Types - This command opens a submenu from which you can choose the y and x axes to be used for the graph. Your choices are L* vs C* (lightness versus chroma), L* vs h (lightness versus hue), and C* vs h (chroma versus hue).

Split View - This command causes the EasyGroup view to be split between the report view and the graph.

the installation is finished. Click **Close** to complete the installation process.

13. Install your USB hardware key in any USB port on the PC. It is necessary to operate EasyGroup. If a message appears looking for a file relating to the USB key, cancel the message. Use Windows Explorer or My Computer to locate the Rainbow HW Key driver folder on your installation CD. Double click the SSD5411-32bit.exe file in this folder and follow the prompts to install the hardware

key driver.

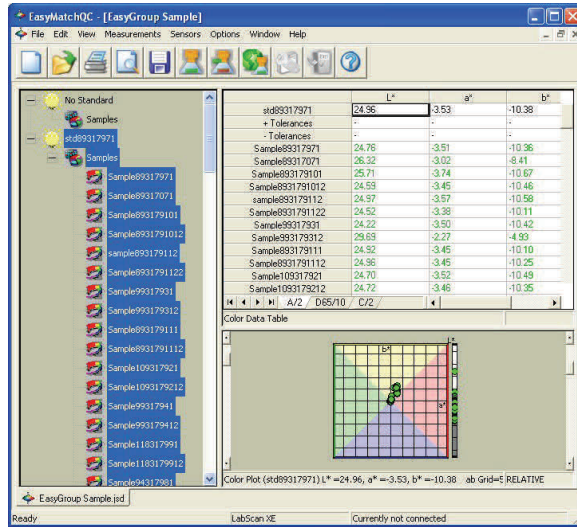


Installation is now complete.

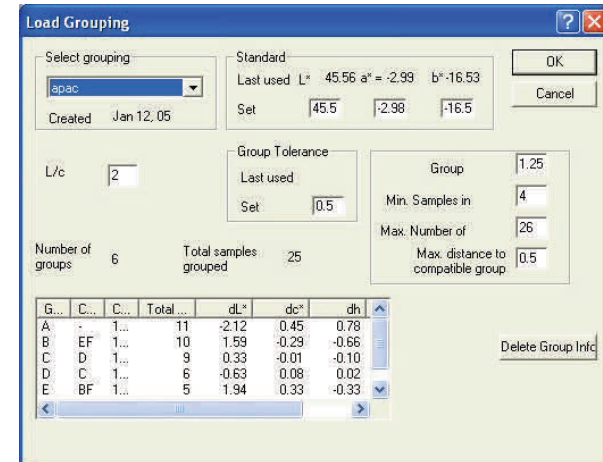
Note: In general, the proper hardware key driver was installed with EasyMatch QC and need not be installed now.

Operating EasyGroup

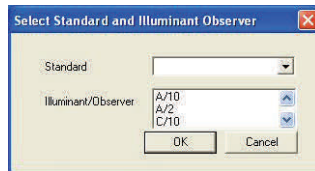
EasyGroup should be launched from inside EasyMatch QC. To do so, first launch EasyMatch QC and open or create a job containing the samples you wish to group and/or taper. This job must contain a standard that has at least three samples associated with it.



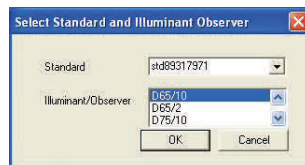
command, the **Load Grouping Info** command allows you to select a grouping and view the information available for the grouping on the screen shown below.



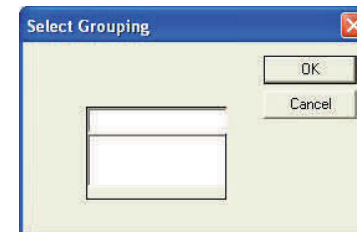
Choose **EasyGroup** from the **Options** menu. The following screen appears:



Choose the standard you wish to use in your grouping and/or taper from the drop-down list. It is the samples linked to this standard that will be grouped/tapered. Also choose the illuminant/observer combination for which you wish to group/taper.



Accept Groups - This command allows you to save the current grouping for the loaded job for historical purposes so you can fit new samples into these existing groups later. Type the name you wish to assign to the grouping in the white box at the top of the Select Grouping screen, then click **OK**.



Output - This command sends the current group or group + taper information to a temporary file that can then be brought into EasyMatch QC using the **Import EasyGroup sequence** command in EasyMatch QC's **Options** menu. The group or group + taper information is then added to EasyMatch QC's Color Data Table.

EasyGroup Menus

EasyGroup contains six menus of commands, as described below.

File Menu

The File menu contains the following commands:

Open - This command allows you to open an .LCH EasyGroup file that has been previously saved in EasyGroup. The keyboard shortcut is **Ctrl + O**.

Save - This command allows you to save the .LCH EasyGroup file currently open. The keyboard shortcut is **Ctrl + S**.

Save As - This command allows you to save the .LCH EasyGroup file currently open under a different file name.

Print - This command allows you to print either the report view or the graph, depending on which is currently displayed. If the split screen is shown, whichever view was last clicked (selected) will print. The keyboard shortcut is **Ctrl + P**.

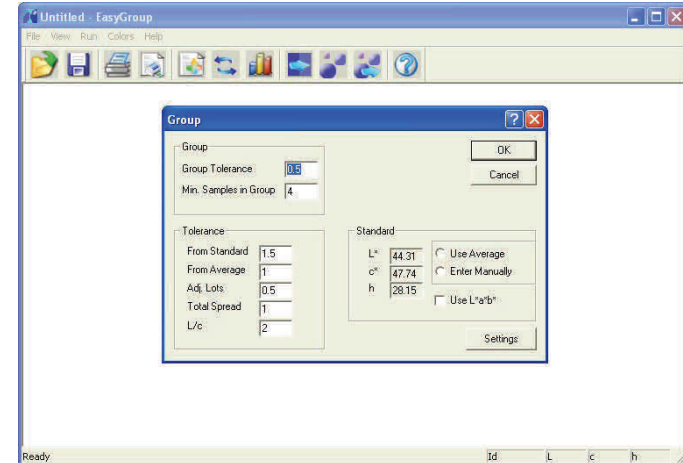
Print Preview - This command allows you to preview the printout of either the report view or the graph, depending on which is currently displayed. If the split screen is shown, whichever view was last clicked (selected) will preview.

Print Setup - This command allows you to set your printer and printer parameters.

Print report to file - This command allows you to save the report data (shown on the left side of the screen by default) as an ASCII text file with the .RPT extension.

Print graph + report - This command prints the graph on the first page of the printout with the report following on later pages.

Load Grouping Info - If specific groupings have already been saved for an EasyGroup File using the **Accept Groups**



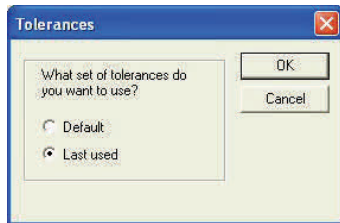
Click **OK** to accept your entries. EasyGroup opens and prompts for additional parameters.

On the left side of the screen enter the following parameters concerning grouping:

- **Group Tolerance:** the size of the dE CMC ellipsoid used to form acceptable groups. For example, a Group Tolerance of 0.5 would create multiple groups where all samples would be within 0.5 dE CMC of the group center.
- **Min. Samples in Group:** the minimum number of samples that may be grouped together
- **Tolerance From Standard:** the maximum color difference (dE CMC) that may exist between any sample that is grouped and the standard
- **Tolerance From Average:** the maximum color difference (dE CMC) that may exist between any sample that is grouped and the average of all samples
- **Tolerance Adjacent Lots:** the maximum color difference (dE CMC) that may exist between any two adjacent groups

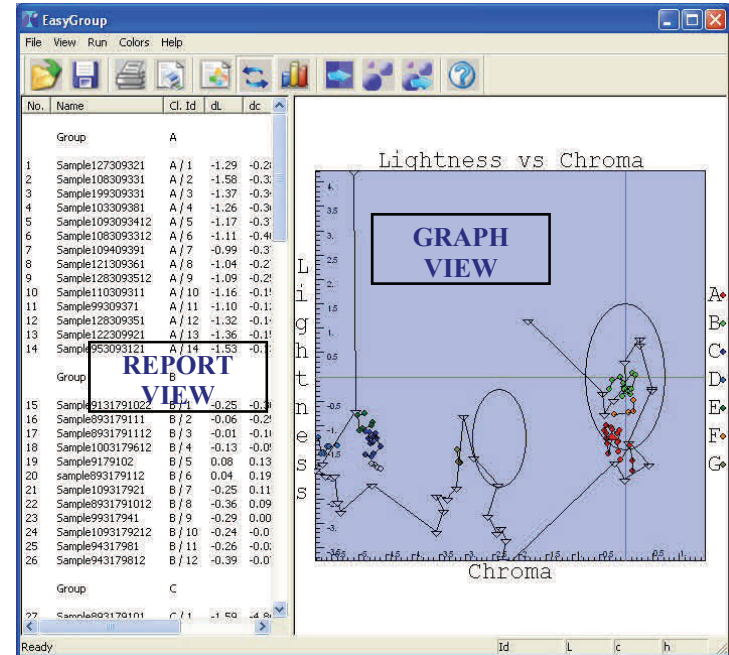
- **Tolerance Total Spread:** the maximum color difference (dE CMC) that may exist between all grouped samples
- **L/c:** the l to c ratio being used for dE CMC calculations.

On the right side of the screen indicate whether you wish the groups to be created around the job's standard (select neither radio button), the average of all the samples (select Use Average), or manually-entered color values (select Enter Manually and type the values into the boxes). Check Use L*a*b* to show the standard values in CIELAB instead of CIEL*C*h. Click the **Settings** button to obtain the screen shown below on which you can choose to fill the Group screen with the system default tolerances or the last tolerances you used.



Click **OK** to proceed with the grouping/taper.

By default, the samples are both grouped and tapered and the split screen is shown with the color data and group/taper information on the left and the graph on the right. However, these parameters may be changed as described in other areas of this user's guide.



In the graph view, you may click on any sample in the graph in order to have its ID and color values shown on the status bar at the bottom of the screen. Samples represented as black triangles are not grouped. You may manually exclude a sample from the grouping by right-clicking it in the graph view and answering yes to the confirmation. The groups are then recalculated. You may include a sample again by right-clicking it under "Manually Excluded" in the report view and answering yes to the confirmation. The groups are then recalculated.