Easy Match® QC Lesson #1

Setting Up a Job Template

This tutorial provides lessons that walk you through some common procedures in EasyMatch QC. These tutorials work through screen configuration and use sample data which may not apply to your situation. Working through these lessons will give you a good feel for how the software operates and provide a basis for substituting your own samples and displays. This tutorial describes setting up a job template, including choosing and configuring data views.

Suppose you wish to configure a job template called "Lesson 1" to use for jobs in which you display your measurement data. The information you require is listed below.

- The Job Tree
- A Color Data Table displaying (in this order) CIELAB, dE*, and Y brightness using D65/10 and C/2, the date and operator for the measurements, and the average of the displayed measurements
- A 2D Color Plot using D65/10
- A Trend Plot for dL*, da*, db*, and dE* using D65/10.
- You also wish to enter default CIELAB tolerances for standards read into jobs based on this template.
- 1) **Open a New Job:** Choose **New Job** from the **File** menu. A new job based on the current default template is opened.
- 2) Select Job Tree: Open the View menu and confirm that Job Tree is checked. If it is not, select it.
- 3) Setting up the Color Data Table: Right-click on the view just to the right of the Job Tree and at the top of the screen. Select Change View from the menu that appears and then Color Data Table. The view will be changed to the Color Data Table.
 - a) Right-click the Color Data Table display and choose **Configure** from the menu that appears. The Color Data Table Configuration screen is shown.

Color Data Table Config	uration]	X
Selected Items (Row position)		Scales: DELAB Differences: dL* Indices: 457nm Bightness Text Fields: Pass/Fail	Y Y Y
Illuminant/Observers Statistics D55/10 Average C/10 Max A/2 Max A/2 Max D55/10 Formation D55/10 Statistics D55/10 D55/2 D55/10 D55/10 D55/10 D75/2 D75/2 V D75/2 V	Inset Cu	ustom Field Edit Form	Fields Fields Font Size 10 -

b) Highlight each item in the Selected Items box in turn and click **Remove** to remove it from the box. Scroll through the Illuminant/Observers and Statistics boxes. Click on any selected (highlighted) items to deselect them.

Sele	ected Items (Row	osition): Scales:
^		<< CIELAB 💌
		Differences:
		<< dL* •
		Indices:
Hemove		<< 457nm Brightness 💌
		Text Fields:
		< Pass/Fail 💌
		Insert Custom Field
luminant/Observ	vers Statis	Insert Custom Field Edit Formula Fields
uminant/Obsers 065/10 02/10 2/10 2/10 2/2 50/2 50/2 50/10 55/2	Vers Statis Toler Max Max Stand	Insert Custom Field Edit Formula Fields cs Display Latest Data First Data Orientation © Row Major © Column Major © Display Latest Data First
uminant/Observ 055/10 02/10 2/10 2/10 2/2 150/2 150/2 155/2 155/2 155/2 155/2 155/2 155/2 175	vers Statis Toler Aver Max Max Stand	Insert Custom Field Edit Formula Fields cs noes p Display Latest Data First Data Orientation Row Major Column Major Digits Beyond Default Font Size Digits Beyond Default Font Size T Auto Size Cells

- c) Locate CIELAB in the Scales drop-down list and select it. Click the left arrow (<<) button next to the Scales list. CIELAB will move into the Selected Items box.
- d) Locate dE* in the Differences drop-down list and select it. Click the left arrow (<<) button next to the Differences list. dE* will move into the Selected Items box.
- e) Locate Y Brightness in the Indices drop-down list and select it. Click the left arrow (<<) button next to the Indices list. Y Brightness will move into the Selected Items box.

- f) Locate Date in the Text Fields drop-down list and select it. Click the left arrow (<<) button next to the Text Fields list. Date will move into the Selected Items box.
- g) Locate Operator ID in the Text Fields drop-down list and select it. Click the left arrow (<<) button next to the Text Fields list. Operator ID will move into the Selected Items box.</p>

Color Data	Table Con	figuratio	n	
Selec GEL Y Br Z Dat Remove	cted Items (Row po: AB (A.B.C) (D) (g) (g) (F) (F) (F) (G)	sition):	Scales: CIELAB Differences: Indices: Indices: Y Brightness Text Field: Operator ID Custom FieldEdit Formula Field	- - - -
Illuminant/Observe D55/10 F02/10 C/10 A/2 A/10 C/2 D50/0 D55/10 D55/10 D55/2 D55/10 D55/2 D75/2 D75/10 F02/2 F07/2	srs Statistica Tolerana Average Max Min Range Standari	d Deviation	Display Latest Data First Data Orientation	e •

- h) Click D65/10, then C/2 in the Illuminant/Observers box to select them.
- i) Click Average in the Statistics box to select it.

Sele	cted Items (Row posi	ition):	Scales:	
	LAB (A,B,C)	<<	CIELAB	-
Y B	rightness (E)		Differences:	
	e (r) stator ID (G)	~~	dE*	•
			Indices:	
Remove		<<	Y Brightness	•
			Text Fields:	
		<<	Operator ID	•
		Insert	Custom Field	mula Fields
ninant/Observ	ers Statistics	Insert	Custom Field Edit For	mula Fields
ninant/Observ 55/10 2/10	ers Statistics	Insert	Custom Field Edit For	mula Fields a First
minant/Observ 55/10 2/10 10 2_	ers Statistics Tolerance Max Min	Insert I	Custom Field Edit For	mula Fields a First
ninant/Observi 5710 2/10 10 2 10 2	ers Statistics Toleranc- Average Max Min Range	es Deviation	Custom Field Edit For Display Latest Dat Data Drientation © Row Major	mula Fields a First
minant/Observ 55/10 2/10 10 2 10 2 50/2 30/10	ers Statistics Tolerance Max Min Range Standard	es Deviation	Custom Field Edit For Display Latest Date Data Drientation © Row Major © Column Major	a First
ninant/Observe 35/10 2/10 10 2 10 10 2 30/2 30/10 35/2 35/10	ers Statistics Toleranc Average Max Min Range Standard	Insert I es Deviation	Custom Field Edit For Display Latest Dat Data Orientation © Row Major © Column Major Digits Beyond Default	a First
minant/Observi 35/10 2/10 10 2 30/10 35/2 35/10 35/2 35/10 35/2	ers Statistics Toleranc Aversize Min Range Standard	es Deviation	Display Latest Date Data Orientation Column Major Digits Beyond Default 0 +	a First Font Size

j) At the right bottom of the screen, make the following selections:

- i) Display Latest Data First Checked
- ii) Data Orientation Row Major
- iii) Digits Beyond Default 0
- iv) Font Size 8
- v) Auto Size Cells Checked



- k) Click **OK** to accept the configuration.
- 4) Configuring the 2D Color Plot. Right click the data view to the right of the Color Data Table at the top of the screen. Select Change View from the menu that appears and then 2D Color Plot. The view will be changed to the 2D Color Plot. If there is not currently a data view to the right of the Color Data Table, right click on the Color Data Table and choose Split View Vertically and Add and choose 2D Color Plot. The 2D Color Plot will be added to the right of the Color Data Table.
 - a) Right click the 2D Color Plot view and choose **Configure** from the menu that appears. The Color Plot Configuration screen is shown.

Color Plot Configuration	
Illuminant/Observer	Display Mode Absolute Relative
Scale and Tolerance Scale: Hunter Lab	
C Polar C Elliptical	OK Cancel

- b) Make the following selections on the Color Plot Configuration screen:
 - i) Illuminant/Observer D65/10
 - ii) Display Mode Relative
 - iii) Scales and Tolerances CIELAB, Rectangular
 - iv) Automatic Range Checked
 - v) Hue and Chroma Unchecked

Color Plot Configuration	
Illuminant/Observer	Display Mode C Absolute Relative
Scale and Tolerance Scale: CIELAB © Rectangular © Polar © CIlliptical V Automatic Range T Hue and Chroma	OK Cancel

- c) Click **OK** to accept the configuration.
- d) Right-click the 2D Color Plot and select (check) both **Show Background** and **Show Legend**.
- 5) **Configure the Trend Plot.** Right click the data view across the bottom of the screen. Select **Change View** and then **Trend Plot** from the menu that appears. The view will be changed to the Trend Plot.
 - a) Right click the Trend Plot and select **Configure**. The Trend Plot Configuration screen appears.

Traces 1, 2, and 3 ▼ Quick, set with Scale	CIELAB 👻		Trace 4
Trace 1	Trace 2	Trace 3	dE* C None C Scale C Index C Difference C Method C DDE
Illuminant/Observer	▼ Display ↓ Line ↓ Point ↓ Columns	Measurements per display-	DDE DDE Label
Statistics Standard Deviation	T Auto Range	Г	

- b) Make the following selections on the Trend Plot Configuration screen:
 - i) Quick set with Scale Unchecked
 - ii) Trace 1 Difference, dL*
 - iii) Trace 2 Difference, da*
 - iv) Trace 3 Difference, db*
 - v) Trace 4 Difference, dE*
 - vi) Illuminant/Observer D65/10
 - vii)Display Columns
 - viii) Measurements per display 25
 - ix) Statistics Both items unchecked
 - x) Auto Range Checked.

races 1, 2, and 3			Trace 4
Trace 1	Trace 2	Trace 3	dE×
C None C Scale C Index C Difference C Method	C None C Scale C Index C Difference C Method	C None C Scale C Index Ø Difference C Method	C None C Scale C Index C Difference C Method C DDE
lluminant/Observer	Display Line Point ✓ Columns	Measurements per display —	DDE DDE Label
Statistics 「Standard Deviation	Auto Range		OK Cancel

- c) Click **OK** to accept the configuration.
- 6) **Configure Tolerances.** Choose **Default Tolerances** from the **Options** menu. The Tolerances screen appears.

Tolerances			
Scales Indices Differences Shade Haze and Selected Scale : DIELAB	d Opacity		Tolerances :
Illuminant/Observer : A/2 Enter tolerances as difference from standard	L* a* b*	·	+ + +
			OK Cancel

a) On the **Scales** tab, choose CIELAB from the drop-down box beneath Selected Scale. Also choose D65/10 from the drop-down box beneath Illuminant/Observer.

Tolerances			
Scales Indices Differences Shade Haze and	d Opacity		
Selected Scale : CIELAB		Tc	olerances :
Illuminant/Observer :	L*	- 0.00	+ 0.00
065/10	a	0.00	+ 0.00
Enter tolerances as difference from standard	b*	0.00	+ 0.00
			OK Cancel

b) On the right side of the screen, enter 0.5 into all six boxes for upper and lower tolerances of one-half unit.

Tolerances				×
Scales Indices Differences Shade Haze and	d Opacity			1
Selected Scale : CIELAB			olerances :	
Illuminant/Observer:	L*	- 0.5	+ 0.5	
	a*	0.5	+ 0.5	
 Enter tolerances as difference from standard 	b*	0.5	+ 0.5	
			OK Cancel	

- c) Click **OK** to accept the tolerances.
- 7) **Configure the Trend Plot Limits.** Right click the Trend Plot view and select **Limits**. The Trend Plot Limits screen appears.

Trend Plot Limits Current Standard: Standard 1			
Trace 1 L* Tolerance +/- 0.00/ 0.00 Range +/- 1 + Control Limit : 0 + Warning Limit : 0 +	Trace 2 a" Tolerance +/- 0.00/ 0.00 Range +/- 1 Control Limit : 0 Warning Limit : 0	Trace 3 b" Tolerance +/- 0.00/ 0.00 Range +/- 1 Control Limit : 0 Warning Limit : 0	Trace 4 dE* Tolerance +/- 0.00/ 0.00 Range +/- 1 + Control Limit : 0 + Warning Limit : 0 +
X Tolerance No of SD Enter 0% in any Control or Warning Control Limits are shown with a red Warning Limits are shown with a put	X Tolerance No of SD Limit to exclude the line from the tra- dashed line. rple dashed line.	C % Tolerance	% Tolerance No of SD OK Cancel

- a) On the Trend Plot Limits screen, make the following selections:
 - i) Trace 1 Range Do not change, since we selected Auto Range in Step 16
 - ii) Trace 2 Range Do not change, since we selected Auto Range in Step 16

iii) Trace 3 Range

iv) Trace 4 Range

Do not change, since we selected Auto Range in Step 16 Do not change, since we selected Auto Range in Step 16 2 standard deviations

v) Trace 4 Control Limit

Frace 1	Trace 2	Trace 3	Trace 4
×	a*	b*	dE×
olerance +/- 0.00/ 0.00	Tolerance +/- 0.00/ 0.00	Tolerance +/- 0.00/ 0.00	Tolerance +/- 0.00/ 0.00
Range +/- 1 🕂	Range +/- 1 🕂	Range +/- 1 🕂	Range +/- 1 📫
Control Limit : 🛛 📮	Control Limit : 0 🐳	Control Limit : 0 🐳	Control Limit : 2 📑
/arning Limit : 0 📩	Warning Limit : 0 🛨	Warning Limit :	Warning Limit : 0 📫
% Tolerance	© % Tolerance		C % Tolerance
C No of SD	C No of SD	C No of SD	No of SD

- b) Click **OK** to accept the limits.
- 8) **Delete Views**. If any extra displays are shown on your screen, right click on each one and choose **Delete View** from the menu that appears.
- 9) **Save Job Template.** Back on the template screen, select **Save Job Template** from the **File** menu. Choose to name the template "Lesson 1" and save it in the Job Templates subfolder to EasyMatch QC.
- 10) **Resize the Windows**. Move your mouse over the right edge of the Job Tree until a double-headed arrow appears.
 - a) Click and drag the mouse to the left to decrease the size of the Job Tree slightly, then release the mouse button.
 - b) Move the side, top, and bottom edges of the other displays until each is the desired size for maximum visibility.



EasyMatchQC -	[Untitled Job3] [DataBase : EZQC]			
🔶 File Edit View Mea	asurements Options Sensor Window Help – 🗗 🗙			
0 🕑 🖨 🖸	🔒 🛃 😫 🚱 🗐 🕜			
L L L L L L L L L L L L L L L L L L L	D L* a* b* dE* Y Brightness Date Operator ID			
(6 4 8	0010			
a				
T	rend Plot			
Green 2 isd 🔶 Untitled Job2 🔶 Untitled Job3				
Ready	Current Sensor :ColorFlex Diffuse "CD03: Current Stdz.Mode : Mode			

- c) Select **Save Job Template** from the **File** menu. The template will be saved again.
- d) Close the open job.
- 11) Configure **Application Preference.** From the **Options** menu, select Applications Preferences.
 - a) On the Startup Defaults tab, Select Lesson 1 for the Default Template and click **OK**.
 - b) The Lesson 1 template will now be used automatically each time you open a new job.