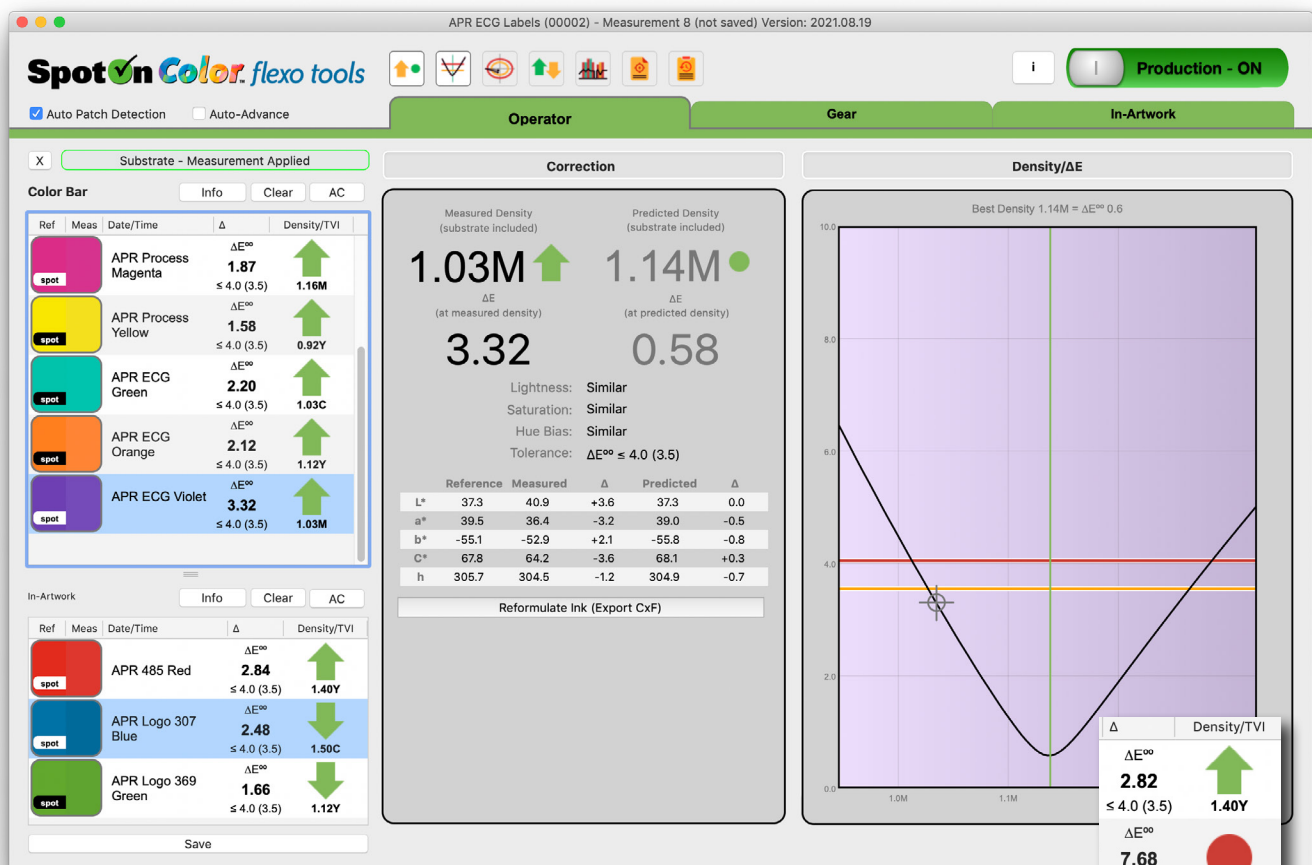


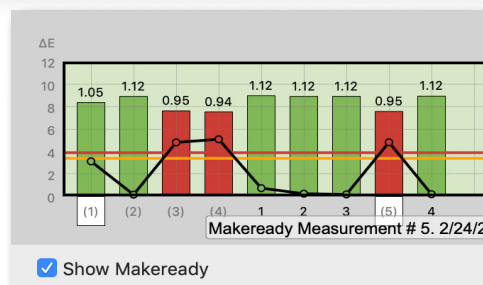
# Spot✓on Color™

## User Guide



**Press Balance**

	Operator	Gear
APR Process Black $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 1.93 @ 1.42V Predicted $\Delta E^{*00}$ 1.8 @ 1.38V	↓
APR Process Cyan $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 3.05 @ 1.28C Predicted $\Delta E^{*00}$ 3.0 @ 1.31C	↑
APR Process Magenta $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 2.46 @ 1.43M Predicted $\Delta E^{*00}$ 2.5 @ 1.43M	↑
APR Process Yellow $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 1.49 @ 0.89Y Predicted $\Delta E^{*00}$ 1.5 @ 0.90Y	↑
APR ECG Green $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 2.55 @ 0.94C Predicted $\Delta E^{*00}$ 0.7 @ 1.08C	↑
APR ECG Orange $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 1.06 @ 1.26Y Predicted $\Delta E^{*00}$ 1.1 @ 1.28Y	↑
APR ECG Violet $\Delta E^{*00} \leq 4.0$ (3.5)	$\Delta E^{*00}$ 3.60 @ 1.07M Predicted $\Delta E^{*00}$ 1.83 @ 1.19Y	↑



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## User Guide

### Part 1 - Database Setup

Setting up a local or server hosted database and linking with SpotOn Color installations.

### Part 2 - Main Screen

Overview of the Job Selector screen layout, tools and menu options.

### Part 3 - Preferences

Customization of user interface, metadata fields and presets, color libraries and other settings and tolerances to optimize SpotOn Color.

### Part 4 - Jobs

How to import, migrate, create and edit a job from the Job Selector Window.

### Part 5 - Measuring

How to connect a device and take color measurements. Overview of measurement interface. Explanation of key icons and color coding references represented in the measurement window.

### Part 6 - Charts & Graphs

Overview of charts and graphs available when taking measurements.

### Part 7 - Reports

Overview of the reports related to Job Tolerances, Job Grade, Measurement assessment, Trend Graph.

### Part 8 - SpotOn! Flexo Migration

How to migrate jobs, measurement history and color standards from SpotOn! Flexo.

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SpotOn Color does not include a proprietary server app. It uses a multi-user networked database configuration that connects to your I.T.'s preferred database server. This places control over performance, backup, and load-balancing in your hands.

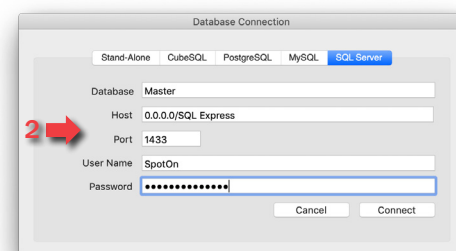
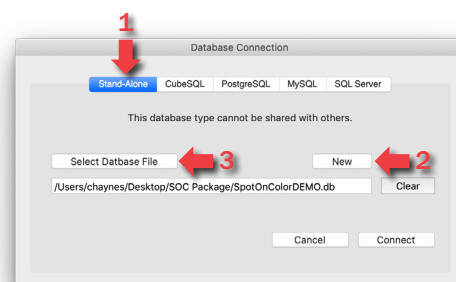
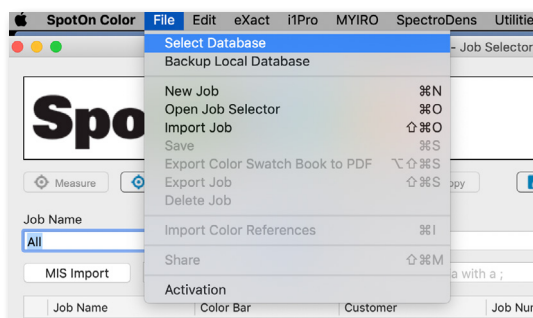
Database Connection can be set up by selecting Select Database under the file menu.

#### RECOMMENDATION:

*Start with a stand-alone database. A sample database with a couple demo jobs is available upon request. Schedule a planning session to discuss strategies for job management and meta data tracking.*

#### Stand-Alone Database

1. SpotOn color can be setup as a stand-alone configuration with a local database
2. To start with a fresh database, select *New* and enter the desired name for your database. This will clear any current settings and entries.
3. To select an alternate SpotOn Color database select *Select Database File*.



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

SpotOn Color Supports CubeSQL, PostgreSQL, SQL Lite, MySQL, and SQL Server/SQL Express. It is recommended to work with an I.T. specialist when setting up a networked database configuration. Database-specific scripts are available.

1. I.T. will create the new database and run the appropriate database-specific script.
2. Connect the SpotOn Color client to the database by completing the fields for the coinciding database tab.

\*An installer is available for SQL Express that automatically configures the database server settings. Available upon request.

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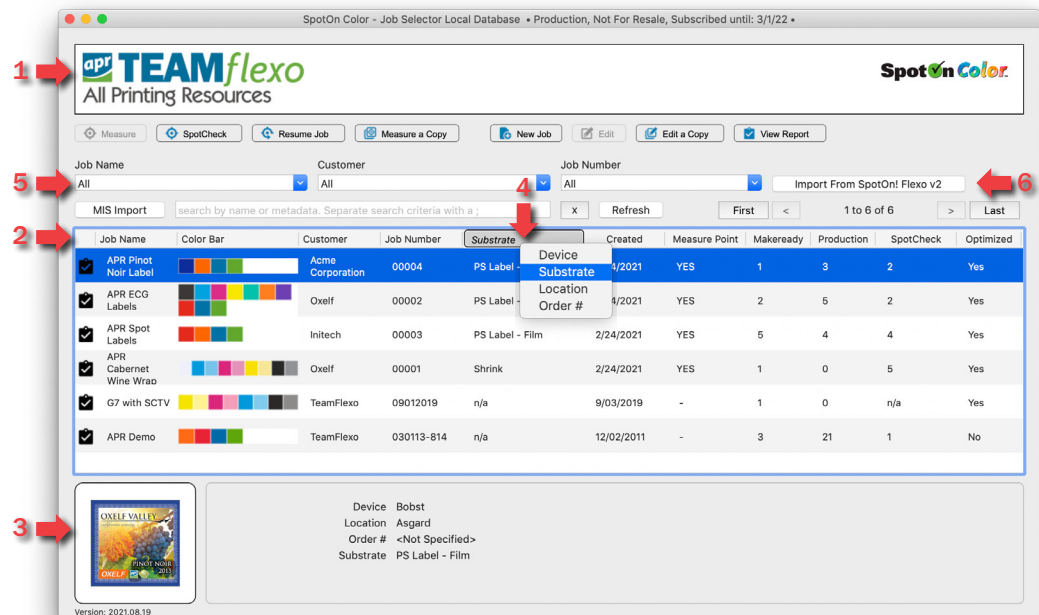
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## Main Menu (Job Selector)

If the Job Selector window does not automatically open at startup, go to *File / Open Job Selector*.

1. To customize window with company logo, go to *Preferences* under the *File* menu (PC) or *SpotOn Color* menu (Mac).
2. Job list includes basic job details to include colors, customer name, job number, date created, indication if there is a measure point document attached, makeready measurement count, production measurement count, SpotCheck measurement count, and optimization status.
3. Additional Job specific details are shown at the bottom of the screen when a job is selected to include a visual of the job (if a measure point document has been attached) and a customizable list of job details. These metadata fields are set in the *Preferences*.
4. Customizable job metadata details are also part of the Job Selector as a dynamic column allowing the user to change and sort jobs based on the custom field entries.
5. To search the Job Selector for a specific job, enter desired filter criteria.
6. To migrate color standards, jobs, and measurements from the previous SpotOn! Flexo software select *Import from SpotOn! Flexo v2*.



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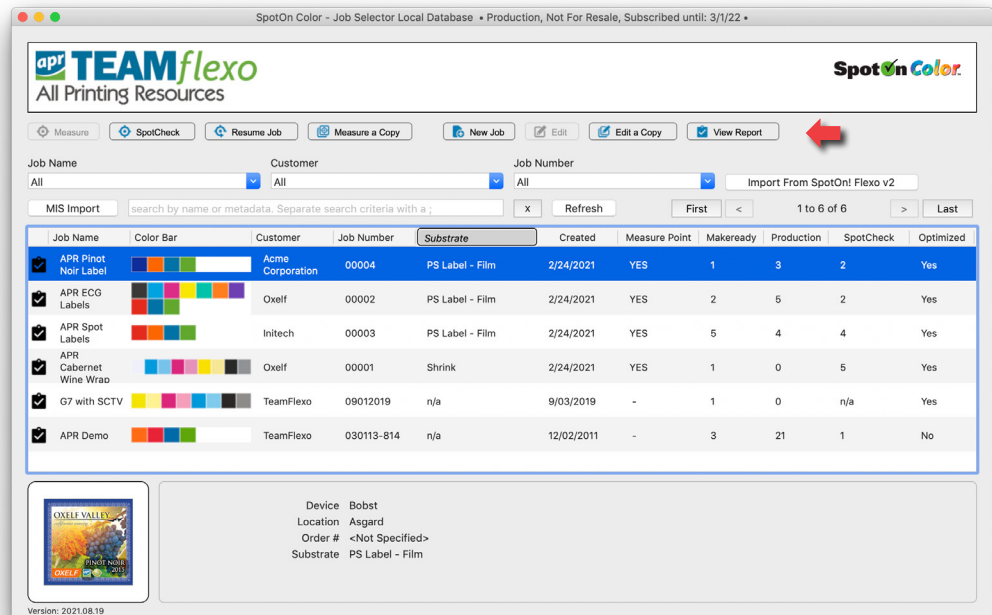
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## Job & Measurement Tools

**Measure** Take measurements for new jobs, that do not have any measurements.

**Resume Job** Take measurements for existing jobs, that already have a measurement history

**SpotCheck** Take measurements outside of a specific job, such as for ink room or prepress pre-checks or mid-run color checks not part of a measurement set.

**Measure a Copy** Start a new measurement history for an exact duplicate of the current job, allowing the user to save with different job name, number, and customer name.

**New Job** Start building a new job from scratch.

**Edit** Edit job details BEFORE any measurements have been taken. Once a measurement set has been taken against a job, some job details can no longer be changed: job colors, measurement condition settings, job tolerance settings, measure point document, color definitions, color tolerance configuration, and color grading priorities.

**Edit a Copy** Use a current job as a template for setting up a new job.

**View Report** View reports related to job tolerances, job grade (score card), measurement history, and trend graphs.

## Menus

**SpotOn Color** (Mac only) Version information and to access SpotOn Color Preferences.

**File** Set up database preferences, version information, open Job Selector, start a new job, import a job (.soj), export a Swatch Book (PDF), export a job, delete archive a job, activate/deactivate a license.

**Edit** (PC only) Access SpotOn Color Preferences.

**Devices** Connect and calibrated available Spectrophotometer devices options. Device options are updated as new device drivers are made available to SpotOn Color.

**Utilities** Optimize current database, import a local database, & export customer color libraries

**Optimize Database** Legacy jobs are not optimize to speed importing, but this will slow down the review of these jobs. *Optimize* updates the database for faster access of legacy measurements.

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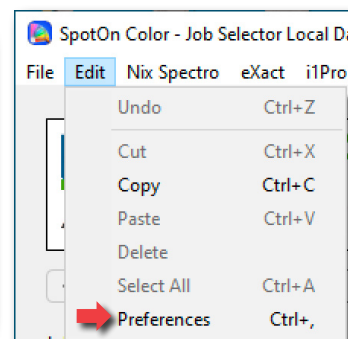
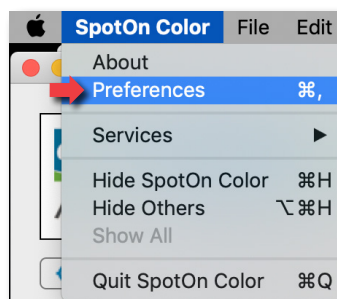
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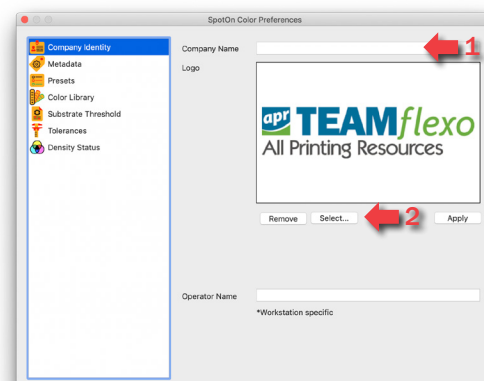
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SpotOn Color Preferences are accessible under the *SpotOn Color* menu (Mac) or the *Edit* menu (PC).



## Company Identity

1. Enter the company name if desired.
2. Upload desired logo or graphic to display on main screen and in reports.



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

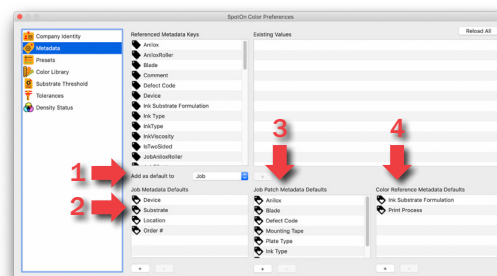
## Metadata

Use existing or create custom metadata tags.

1. If available, select a *Referenced Metadata Key* and track as part of a *Job Default* or *Job Patch Default* or *Color Reference Default*.

Select the "+" or "-" to manually add or subtract metadata fields to track details...

2. related to a job as a whole. (i.e. Plant Location)
3. for individual colors within a job. (i.e. Anilox)
4. related to color standards stored in the Color Library. (i.e. Ink System)



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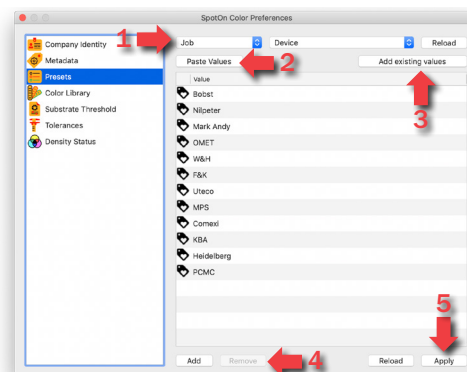
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## Presets

To standardize entries, this hard codes a drop down list and eliminates manual entry.

1. Select the desired metadata field (i.e. Job: Devices).
2. Select *Paste Values* from another document such as a list created in Word or Excel.
3. For jobs that were migrated from SpotOn! Flexo or where manual entries were enabled you have the option to *Add existing values*.
4. Manually *Add* or *Remove* items from the list.
5. Select *Apply* to accept the preset list. Once a list is applied it cannot be reset to manual entry.
6. Drag and drop to reorder the list in desired sequence. The first entry is always the default value that is automatically applied to a field.



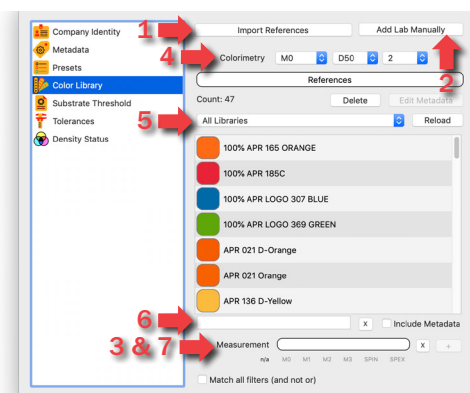
## Color Library

To add a new color reference/standard:

1. Import references (.cxf file) from other sources.
2. Manually add as L\*a\*b\* values.
3. Connect a spectro and measure in a standard. Select "+" to add the color.

Options to filter which standards are displayed:

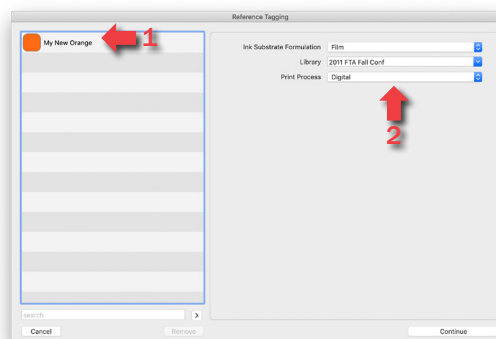
4. Select desired *Colorimetry* settings.
5. Select a desired *Library*.
6. Enter a key word, such as *185* or *Red*.
7. Connect a spectrophotometer and measure a sample. Measurement will be compared to colors currently in the selected library and provide a list in order of the closest [ΔE] match.



## Color Library

To add color standard via a spectro measurement click on the "+" next to the color in step 3 above.

1. Double click on the color to change the color name.
2. Select desired metadata details to assist with organizing, sorting, and filtering in future color searches.



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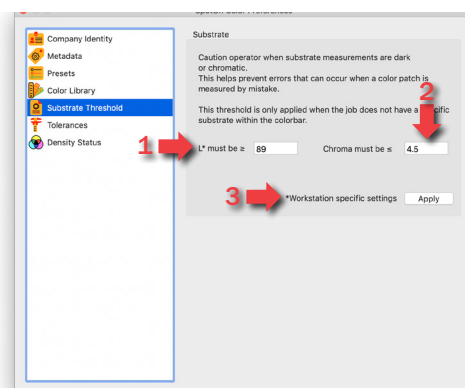
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## Substrate Threshold

All measurement sets for a job require the operator first take a measure of the substrate. To caution the operator when the substrate measurement is too dark or chromatic a threshold can be set. This helps prevent errors that can occur when a color patch is measured by mistake. This threshold is only applied when the job does not have a specific substrate color patch designation as part of the job Color Bar.

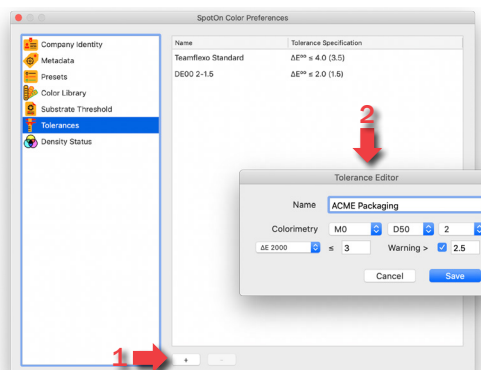
1. Set minimum accepted  $L^*$  value.
2. Set maximum accepted *Chroma* value.
3. Select *Apply* to workstation.



## Tolerances

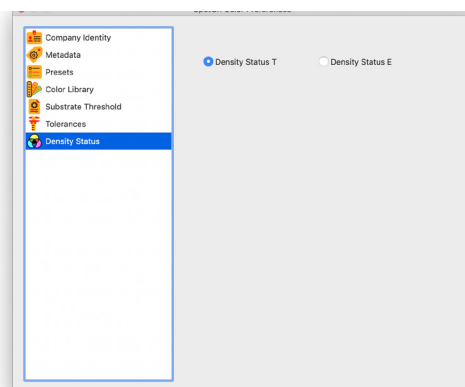
Tolerance presets can be created to ensure only approved tolerancing parameters are applied to a job or a color.

1. Select "+" to add new tolerance set.
2. Enter tolerance settings.
  - a. Give a descriptive name.
  - b. Set *Colorimetry* settings.
  - c. Select  $\Delta E$  tolerance formula ( $\Delta E$  2000 is recommended)
  - d. Set  $\Delta E$  fail value (max  $\Delta E$ ).
  - e. Set  $\Delta E$  *Warning* value (0.5-1  $\Delta E$  less than fail point is recommended)



## Density Status

Select desired *Density Status* response. *Status T* is default and most commonly used in North America. *Status E* is commonly used in Europe and other countries.



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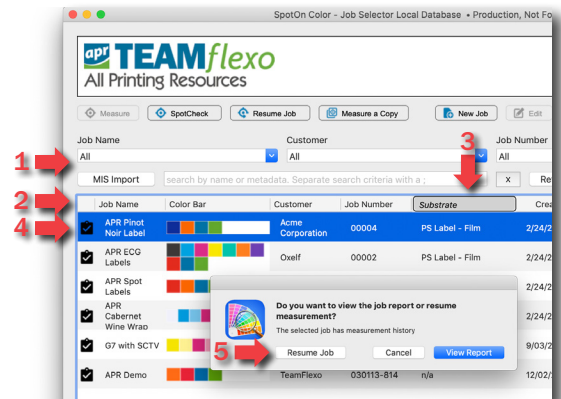
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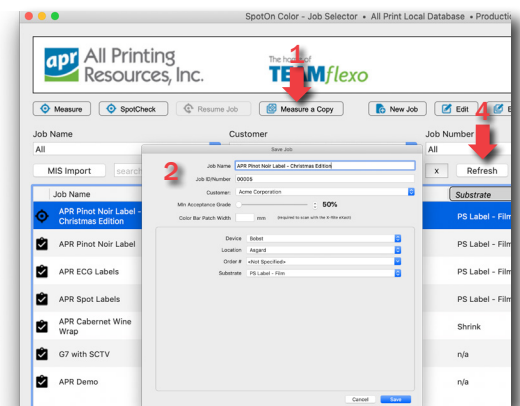
## Job Selector

1. Use filters to search Job Selector for a specific job already created.
2. Job list can be sorted selecting the column header for any column.
3. Job list can also be sorted by the customizable column. Customization is based on custom job metadata tags set up in Preferences.
4. Double click on a job to open the job.
5. Select to either *Resume Job* measurements or *View Report*.



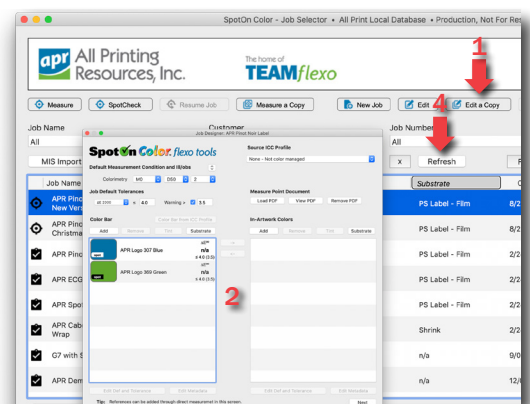
## Measure a Copy

1. Highlight desired job and select *Measure a Copy* to create an exact duplicate of the same job.
2. Change job information as needed. All job metadata can remain exactly the same thus creating an exact duplicate job in the Job Selector, though this could make it challenging to ensure the correct job is selected in the future.
3. A measurement window will automatically open. This window can be closed without taking measurements if preferred.
4. If the job does not show up in the job list, select *Refresh*.



## Edit a Copy

1. Highlight desired job and select *Edit a Copy*.
2. Change job details and job information as needed. All job metadata can remain exactly the same thus creating an exact duplicate job in the Job Selector, though this could make it challenging to ensure the correct job is selected in the future.
3. Select whether you want to go directly to measurement window or not.
4. If the job does not show up in the job list, select *Refresh*.



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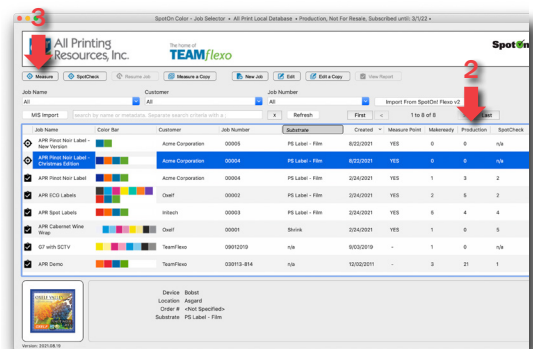
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## First Measurement



APR Pinot Noir Label - Christmas Edition

1. Jobs with no measurement history are indicated by a target symbol.
2. These jobs will also show "0" Makeready, "0" Production, and "n/a" SpotCheck measurements.
3. The *Measure* button is active or the user can double-click the desired job and a measurement window will automatically open.

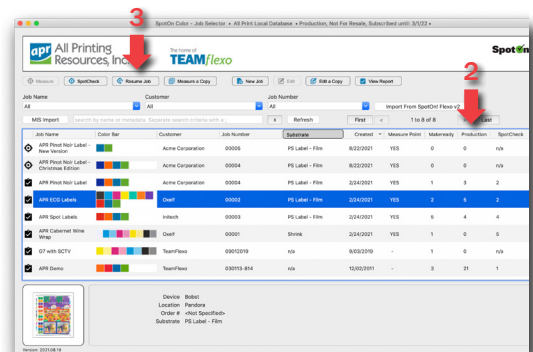


## Ongoing Measurements



APR ECG Labels

1. Jobs with a measurement history are indicated by a check-mark symbol.
2. These jobs will also show how many Makeready, Production, and SpotCheck measurements have been taken.
3. The *Resume Job* button is active or the user can double-click the desired job.



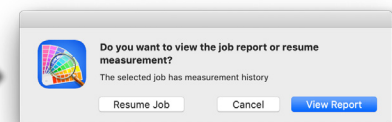
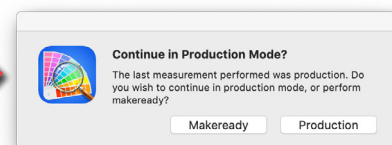
You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

1. Resume Job automatically launches Measurement window. Select *Makeready* or *Production*.

Makeready measurements are tracked and included in job statistics but can be filtered out of reports and are not included in the job grade (i.e. material not being shipped to customer).

Production measurements track print that is being shipped to the customer (i.e. good product).

2. Double-clicking a job will launch a window that asks if you want to *Resume Job* measurements or *View Report* details for a job.





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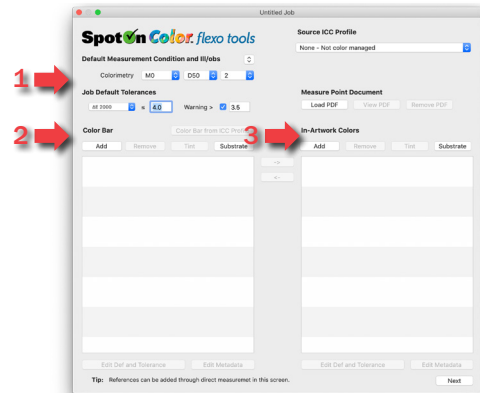
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## New Job

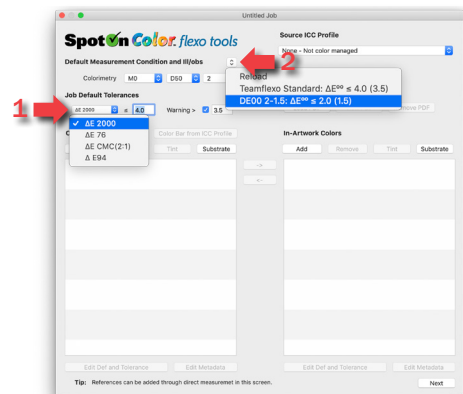
Select New Job to design a job from scratch.

1. Default *Colorimetry* and *Tolerance* settings can be changed. These settings are applied to all colors.
2. *Color Bar* color list is intended for primary colors in the job often located long web edges though they can be anywhere within the print area. If using a spectro with scanning capabilities the colors must be added to the *Color Bar* in the correct order.
3. Extra colors can be add as *In-Artwork Colors*. The same colors that are in the *Color Bar* or completely different colors can be added.



## Colorimetry and Tolerance Presets

1. *Colorimetry* and *Tolerance* defaults can be modified. These settings apply to all colors in a job.
2. *Tolerance* presets can be set up in *Preferences*.



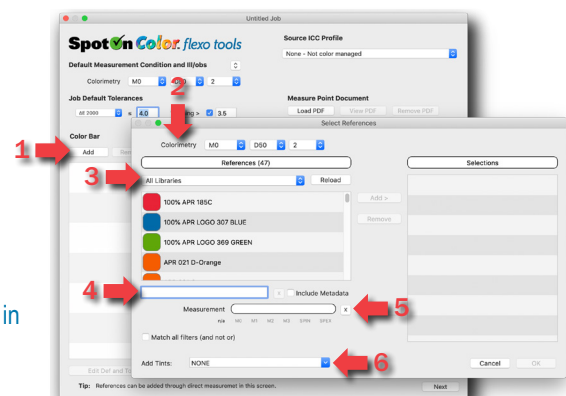
You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

## Color Bar and In-Artwork Colors

1. Select *Add* to add colors to a *Color Bar* or *In-Artwork*.

To filter the color list:

2. Select desired *Colorimetry* settings.
3. Select a specific *Library*.
4. Enter a keyword search such as *185* or *Red*.
5. Connect a spectro and measure a sample. Measurement will be compared to colors currently in the selected library and provide a list in order of the closest  $[\Delta E]$  match.
6. Add *Tint* values if needed.



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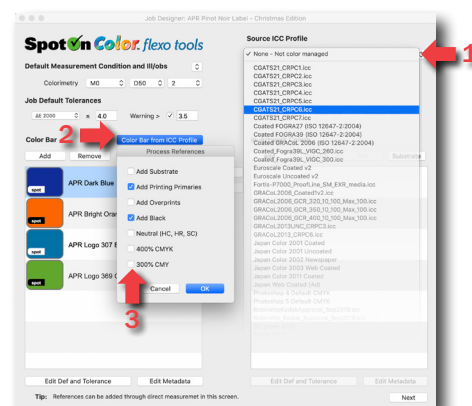
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## Source ICC Profile

Another way to add process colors to the *Color Bar* or *In-Artwork Color* lists is to assign a profile to the job.

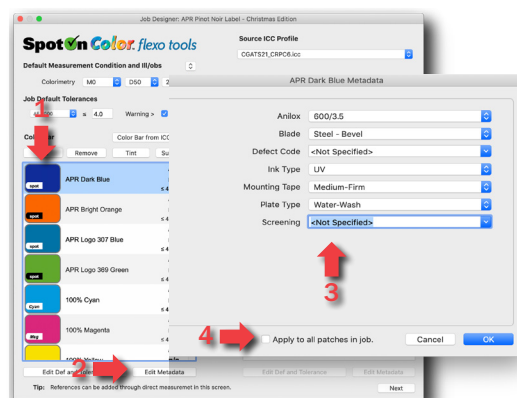
1. Assign a *Source ICC Profile*.
2. Select *Color Bar from ICC Profile*.
3. Check which items are needed in the color list.



## Edit Metadata

Customize metadata information per color.

1. Select the desired color.
2. Select *Edit Metadata*.
3. Make desired changes to metadata tags. For metadata fields with no preset list the field will default to *<not specified>*. For metadata fields with *Preset* lists the default entry will be the first item listed the *Preferences* settings.
4. Select *Apply to all patches in job* to quickly apply changes to all colors.



## Edit Color Definition and Tolerance

Customize color grading priority, scanning, and tolerancing preferences per color.

1. *Grade Priority* sets a color's weighted value for the scoring process. For example a brand color may rank higher than other colors.
2. *Ignore Patch* ignores a patch when scanning.
3. Select *Use Custom Tolerancing* to apply different tolerancing specs for a color than what is set for the *Job Default Tolerances*.
4. Un-check the box if you do NOT want the color to be part of the pass/fail statistics for a job. For example you could track a substrate color but not include it as part of the pass/fail history.



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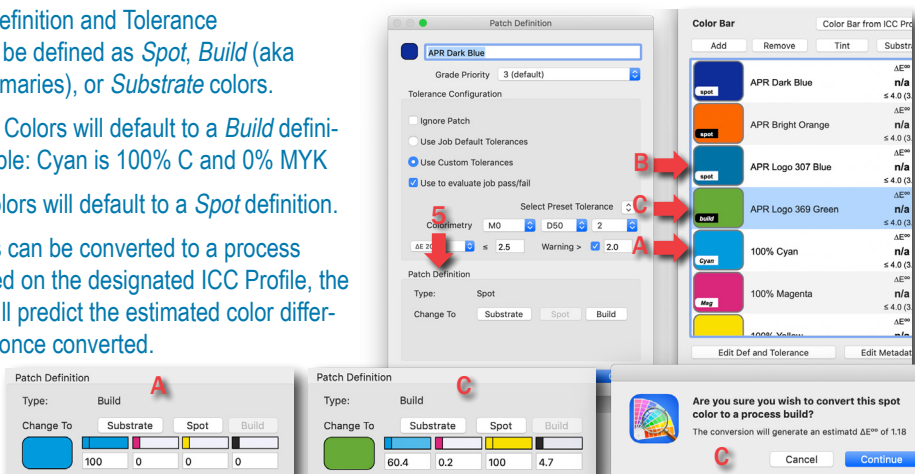
...Edit Color Definition and Tolerance

5. Colors can be defined as *Spot*, *Build* (aka process primaries), or *Substrate* colors.

A. ICC Profile Colors will default to a *Build* definition. Example: Cyan is 100% C and 0% MYK

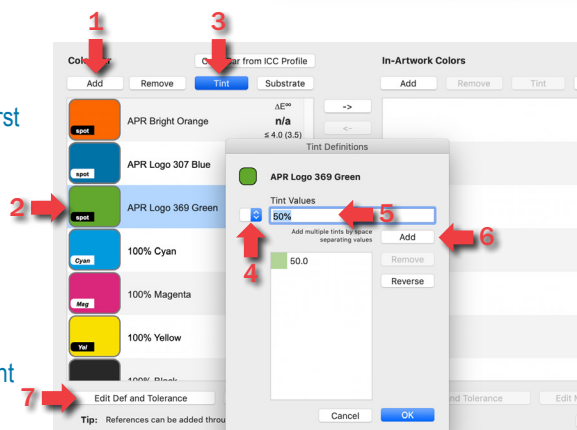
B. All other colors will default to a *Spot* definition.

C. *Spot* colors can be converted to a process *Build*. Based on the designated ICC Profile, the software will predict the estimated color difference ( $\Delta E$ ) once converted.



## Tint Values

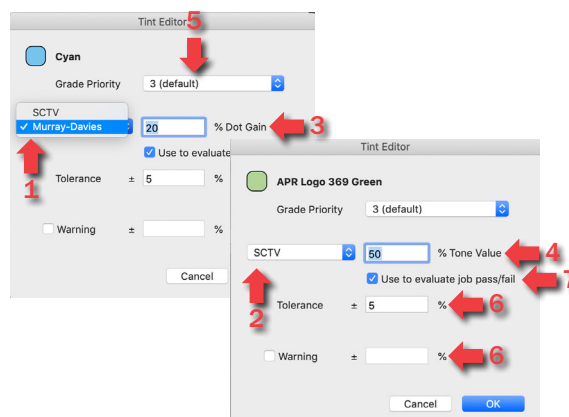
1. Tint Values can be added when the color is first added to the Color Bar.
2. Otherwise, select the color.
3. Select *Tint*.
4. Select from pre-configured tint value options.
5. Otherwise manually enter desired tint value.
6. Select *Add*.
7. Select *Edit Def and Tolerance* to customize tint grading priority and tolerancing preferences.



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

## Tint Value Definition and Tolerance

1. Process color tint values can be managed via Spot Color Tone Value (SCTV) or Murray-Davis (M-D).
2. Spot color tint values are managed by SCTV.
3. For M-D, select the desired *Dot Gain*. A common target dot gain is between 17%-20%.
4. For SCTV the target *Tone Value* target should be set at 50%.
5. Change a tints *Grade Priority* as needed.
6. Set max and *Warning* tolerances as desired.
7. Un-check the box if you do NOT want the tint to be part of the pass/fail statistics for a job.



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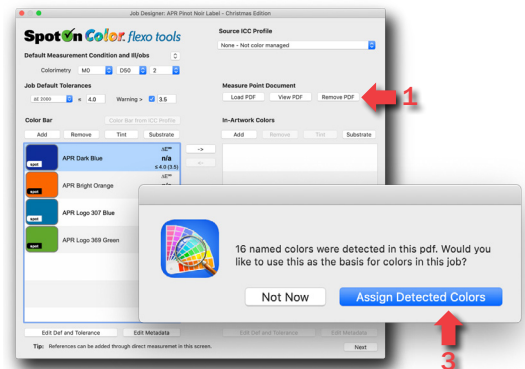
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## Measure Point Document

1. Select *Load PDF* to attach a visual reference to a job.
2. Navigate the browser to the desired file.
3. Select *Assign Detected Colors* to match colors from the PDF to standards already in the SpotOn Color color library.



## Assign Detected Colors

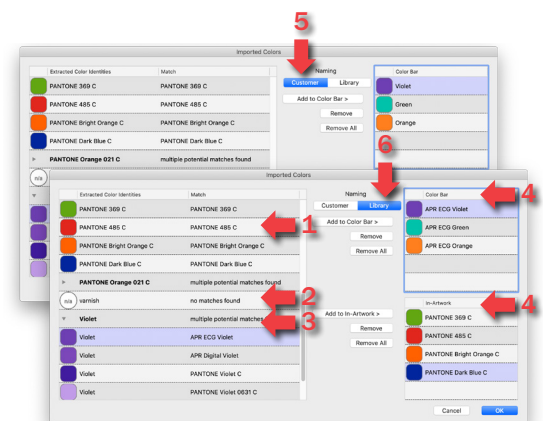
The color names in the PDF are compared to the standards in the SpotOn Color color library.

### Match Scenarios:

1. A one-to-one color name match was found.
2. No color matches were found.
3. Multiple potential color matches were found.

### To Add a Color:

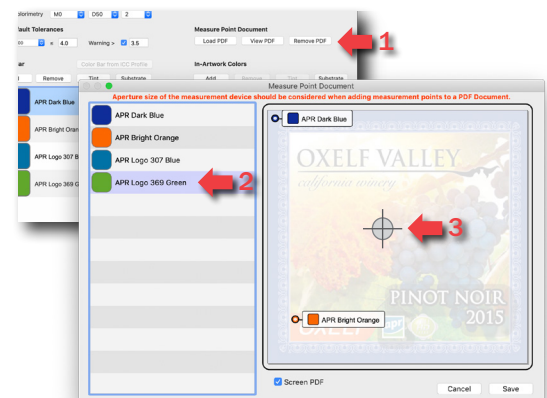
4. If an accurate color standard match is available, select *Add to Color Bar* or *In-Artwork*.
5. Select *Customer* to use the color name.
6. [Preferred] Select *Library* to use the SpotOn Color standard name.



## Assign Measure Point Location(s)

1. Select *View PDF*.
2. Select the desired color from the color list.
3. Use the targeting tool to mark where the operator should measure that color.

Note: Aperture size of the measurement device should be considered when adding measurement points to a PDF document to ensure there is enough space to get an accurate measurement.



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## Color Measurement Summary

This information next to a color offers a quick summary and visual of the color accuracy. This information is a condensed version of what is shown in the *Correction* dashboard widget.

### At a Glance:

**Red** Alert! Color is out of  $\Delta E$  tolerance! Needs attention.

**Orange** Warning! Color is getting close to fail tolerance! Needs attention.

**Green** Color is within  $\Delta E$  tolerance.

**Up Arrow** An increase in density (solids) or tone value (tints) will improve the color or tone value match.

**Down Arrow** An decrease in density (solids) or tone value (tints) will improve the color or tone value match.

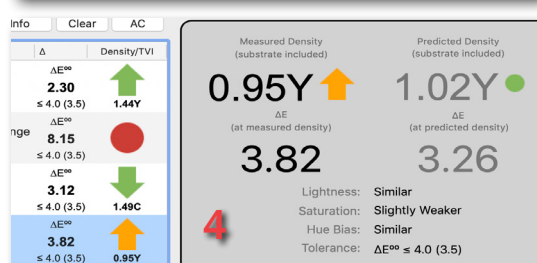
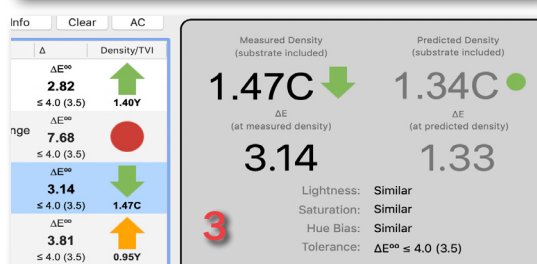
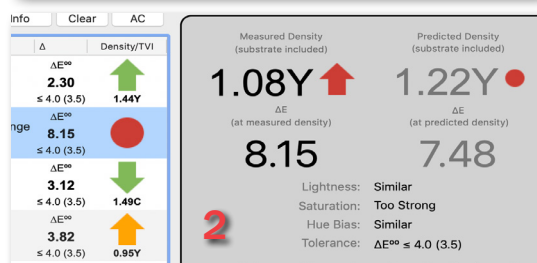
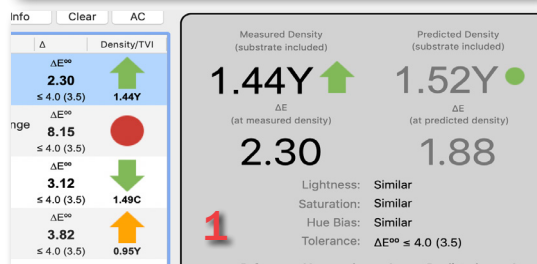
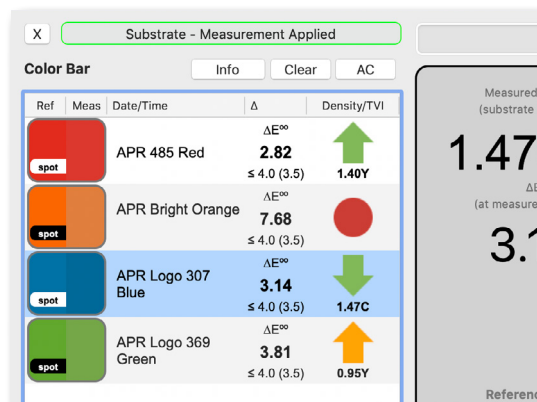
**Red Circle** Ink is out of  $\Delta E$  tolerance and can not be corrected via density shifts. The color is incorrect and likely needs to be reformulated.

**Orange Circle** Ink is out of  $\Delta E$  warning tolerance and cannot be corrected via density shifts to run "green". The color is borderline and likely needs to be reformulated.

**Green Circle** Ink is at a nearly perfect  $\Delta E$  of 0. No change is needed.

### Example:

1. Red color is good (green) but an increase in density will improve the color match from  $\Delta E$  2.30 to  $\Delta E$  1.88.
2. Orange color is bad (red) and density will not correct the color (circle). This ink should be replaced with new ink. Best  $\Delta E$  potential is 7.48.
3. Logo Blue color is good (green) but a decrease in density will improve the color match from  $\Delta E$  3.14 to  $\Delta E$  1.33.
4. Logo Green color is OK (orange) but getting close to "fail". An increase in density will improve the color match from  $\Delta E$  3.82 to  $\Delta E$  3.26, which is under the warning tolerance slightly but indicates this color will likely run in this warning zone or close to it most of the time.



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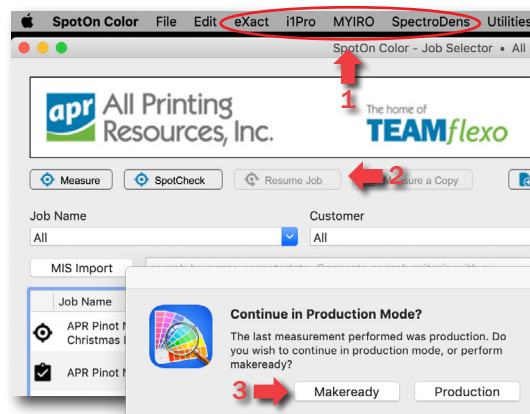
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### Measuring a Job

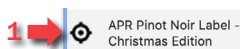
1. Connect the appropriate device. Some devices may have scanning capabilities. Xrite no longer allows any software being used in a pressroom to connect with an i1Pro.
2. Select *Measure* or *Resume Job*.
3. Select *Makeready* or *Production*.

Makeready measurements are tracked and included in job statistics but can be filtered out of reports and are not included in the job grade (i.e. material not being shipped to customer).

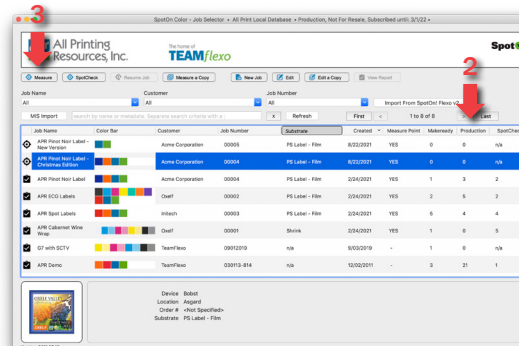
Production measurements track print that is being shipped to the customer (i.e. good product).



### First Measurement



1. Jobs with no measurement history are indicated by a target symbol.
2. These jobs will also show "0" Makeready, "0" Production, and "n/a" SpotCheck measurements.
3. The *Measure* button is active or the user can double-click the desired job and a measurement window will automatically open.

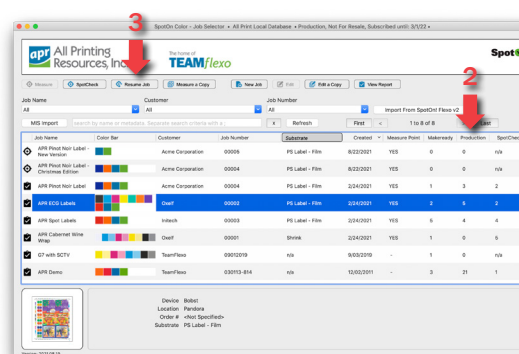


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### Ongoing Measurements



1. Jobs with a measurement history are indicated by a check-mark symbol.
2. These jobs will also show how many Makeready, Production, and SpotCheck measurements have been taken.
3. The *Resume Job* button is active or the user can double-click the desired job.



For more information, contact All Printing Resources at 1-800-445-4017 or email [spotoncolor@teamflexo.com](mailto:spotoncolor@teamflexo.com)



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## Measurement Interface

1. Dashboard widgets include Correction details, Density/ΔE curve, L\*/a\*/b\* Deviation graph, Press Balance comparison, interactive Trend Graph, Measure Point Document and Job Patch History.
2. Check *Disable Gear-Side* to take only one set of measurements. If this is checked, then two sets of measurements must be taken before measurement file can be saved (i.e. gear and operator side control targets).
3. Info button ("i") provides additional job related details.
4. *Production* toggle switch should be turned *OFF* when in makeready/setup mode and turned *ON* when in production mode and running good [sellable] material.
5. *Auto Patch Detection* compares measurement data to colors in the list and automatically matches the measurement to the appropriate color even when read out of sequence. This is helpful when the printed color bar is a different sequence or when taking measurements randomly across a print sample. When colors are too close colorimetrically to distinguish them automatically, un-check this box (i.e. two reds).
6. *Auto-Advance* automatically advances to the next color group after one grouping of measurements is taken. For example, when checked it automatically advances from the Operator-side color group to the Gear-side color group.
7. Up to 3 groups of measurements can be taken per measurement set - *Operator*-side, *Gear*-side, and *In-Artwork*. If *Disable Gear-Side* is checked, then only the *Operator* measurement group is active. The *In-Artwork* measurement group is only available if a job is built with colors in the *In-Artwork* section.
8. *Substrate Measurement* must be taken first. To clear the measurement select the "X".
9. *Color Bar* and *In-Artwork* colors do not have to be listed in the same order that they are printed (especially when *Auto Patch Detection* is checked) nor do they have to reside in an actual color bar on the sample. Measurements can be taken randomly around the print surface if a color bar is not available. A color bar is only necessary if when using a scanning spectro device to scan in measurements.
10. Dashboard widget display can be customized based on which widget tool(s) is(are) selected.

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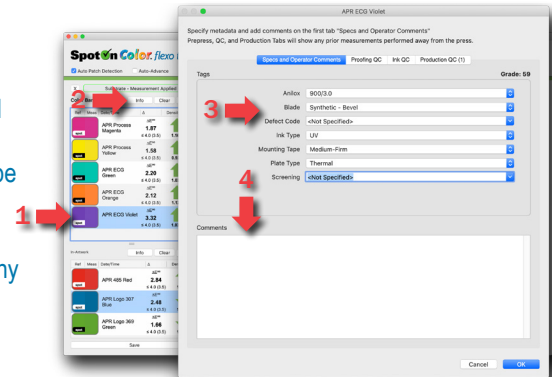
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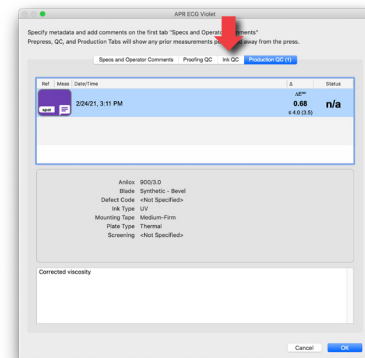
## Color Info and Metadata

1. Select a color.
2. Select the *Info* button.
3. User can see what has already been assigned in the metadata fields and change values as needed (i.e. changing the type of mounting tape used and/or the anilox and/or the ink type).
4. User can enter *Comments* specific to the selected color. For example, they may explain why the mounting tape, anilox, and ink type were changed to something different.



## Spot Check Measurements

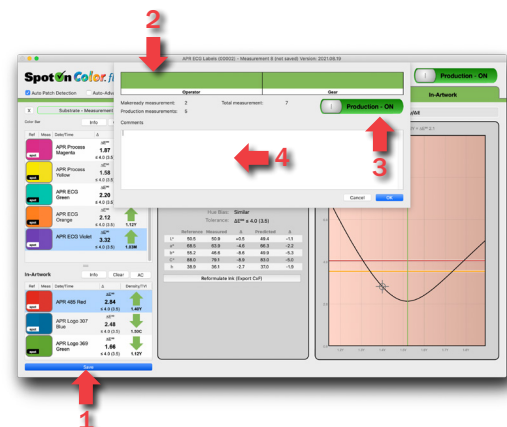
By selecting one of the other three tabs, the operator can see other information and comments made by prepress, the inkroom, or in a production SpotCheck (i.e. the inkroom measured this color before sending ink to the press).



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

## Save Measurement Set

1. Once all measurements for all color groups are completed, select *Save*.
2. Color coded bar at the top is a visual indication of the overall color accuracy. Even if only one of several colors is orange or red, the color bar will reflect the worst color match in the group.
3. The user has one more opportunity to make sure the job is saved as *Makeready (OFF)* or *Production (ON)* mode.
4. The user can add *Comments* about the measurement set.



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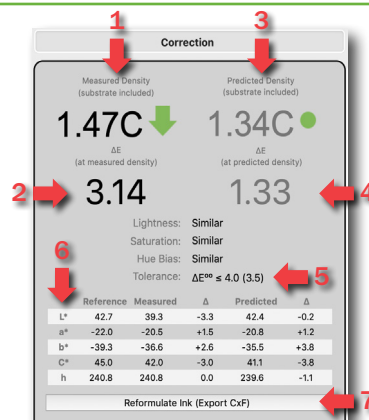
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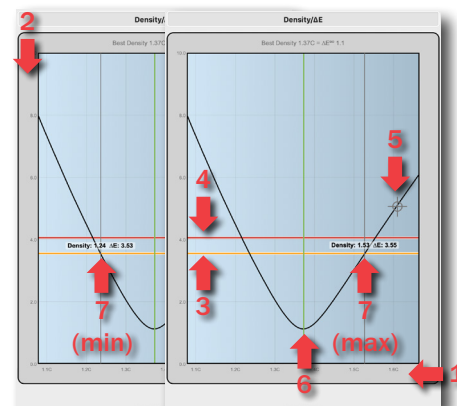
## Correction

1. The density measurement of the current sample being measured.
2. The resulting  $\Delta E$  of the current sample compared to the color standard.
3. The recommended density to improve color match to the standard.
4. If the recommended density is achieved, this is the predicted best-case  $\Delta E$ .
5. The tolerance description set for the job.
6. Specific L\*/a\*/b\*/C\*/h measurements.
7. The sample color measurement can be exported as a .cxf file to share with other applications.



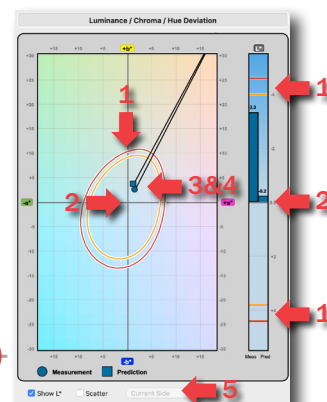
## Interactive Density/ $\Delta E$ Curve

1. Density Range (x-axis).
2.  $\Delta E$  Range (y-axis).
3. Warning  $\Delta E$  tolerance set for this job.
4. Max  $\Delta E$  tolerance set for this job.
5. Current  $\Delta E$  measurement based on the current density.
6. Best-case  $\Delta E$  measurement with recommended density.
7. This is an interactive density curve. The user can drag the mouse along the curve to identify the density range for optimal color match. Example images show values displayed at min and max densities to keep within the warning  $\Delta E$  tolerances established for this job.



## Luminance/Chroma/Hue Deviation Graph

1. The Orange lines in the a\*/b\* graph and L\* bar graph represent the warning  $\Delta E$  tolerance established for the job. The Red lines represent the max  $\Delta E$  tolerance established for the job.
2. The center of the oval and bar graph would represent a perfect color match.
3. The blue circle point is where the current measurement falls.
4. The blue square point is where the predicted measurement would fall.
5. Select Scatter to show where multiple measurements have been falling.



Colors above the mid-line are darker than the standard.

Colors below the mid-line are lighter than the standard.

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## Press Balance

This display provides a quick side-to-side comparison so the operator can easily tell if needed and in what direction to adjust density and/or impression settings for both sides of the web.

Green arrows signify minimal adjustment is needed if any. Orange and red arrows indicate a more significant change is needed.

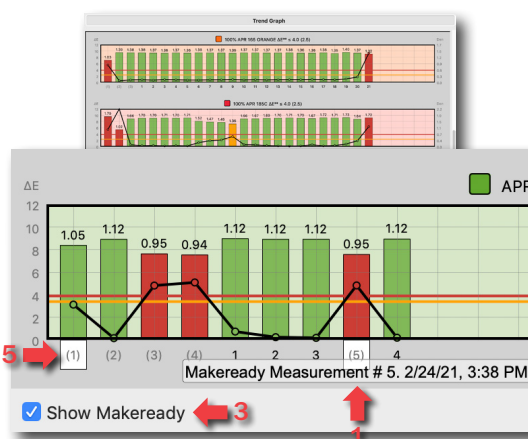
\*Voted Press Operator Favorite Widget\*



Press Balance			
	Operator	Gear	
APR Process Black ΔE™ ≤ 4.0 (3.5)	ΔE™ 1.93 @ 1.42V Predicted ΔE™ 1.8 @ 1.38V	↓	ΔE™ 2.12 @ 1.33V Predicted ΔE™ 1.7 @ 1.38V
APR Process Cyan ΔE™ ≤ 4.0 (3.5)	ΔE™ 3.05 @ 1.28C Predicted ΔE™ 3.0 @ 1.31C	↑	ΔE™ 3.01 @ 1.19C Predicted ΔE™ 2.6 @ 1.27C
APR Process Magenta ΔE™ ≤ 4.0 (3.5)	ΔE™ 2.46 @ 1.43M Predicted ΔE™ 2.5 @ 1.43M	↑	ΔE™ 2.34 @ 1.37M Predicted ΔE™ 2.3 @ 1.40M
APR Process Yellow ΔE™ ≤ 4.0 (3.5)	ΔE™ 1.49 @ 0.89Y Predicted ΔE™ 1.5 @ 0.90Y	↑	ΔE™ 2.22 @ 0.82Y Predicted ΔE™ 1.7 @ 0.89Y
APR ECG Green ΔE™ ≤ 4.0 (3.5)	ΔE™ 2.55 @ 0.94C Predicted ΔE™ 0.7 @ 1.08C	↑	ΔE™ 2.80 @ 0.93C Predicted ΔE™ 0.9 @ 1.08C
APR ECG Orange ΔE™ ≤ 4.0 (3.5)	ΔE™ 1.08 @ 1.26Y Predicted ΔE™ 1.1 @ 1.26Y	↑	ΔE™ 1.83 @ 1.19Y Predicted ΔE™ 1.5 @ 1.26Y
APR ECG Violet ΔE™ ≤ 4.0 (3.5)	ΔE™ 3.50 @ 1.07M Predicted ΔE™ 1.1 @ 1.17M	↑	ΔE™ 3.78 @ 1.06M Predicted ΔE™ 1.1 @ 1.17M

## Interactive Trend Graph

1. Hover the mouse over a bar to see a date and time stamp for that specific measurement.
2. Click a bar to automatically display more details about that color for that measurement set.
3. Un-check the box to hide *Makeready* data.
4. Measurement set numbers in "("" indicate makeready measures. The darker black numbers are production measures.
5. A white box indicates there are comments about that specific color measurement.



## Measure Point Document

If a PDF was uploaded when the job was made a preview of the digital file can be seen by selecting this widget. This is a good way to validate the correct job is being measured.

1. Specific measurement locations may be identified to help ensure measurements are taken in the same location and the area measured is large enough for the device aperture.
2. To more easily see the measure points, select *Screen PDF* to lighten the image.



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## Patch Job History

This display shows the previous history for all production measurements only.

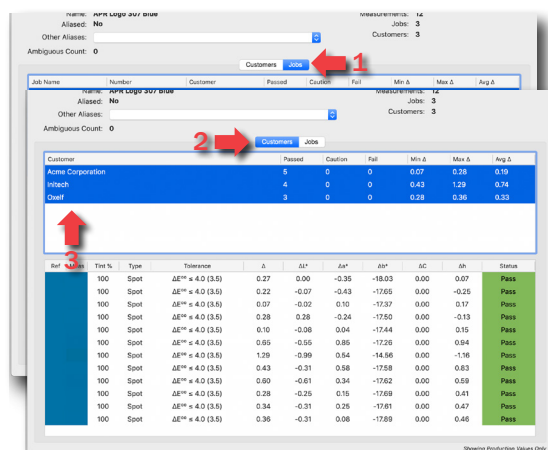
1. Overview of all production measures for a select color.
2. Specific color details about a specific measurement instance for the selected color.
3. Specific color and measure set comments are noted by a text bubble on the color swatch and the comments can be seen at the bottom.
4. To export a color measurement to use in other software, select *Reformulate Ink (Export CxF)*.
5. To see an even broader overview of how a color performs globally select the *Global Patch History*.



## Global Patch History

Only Production measurements are displayed.

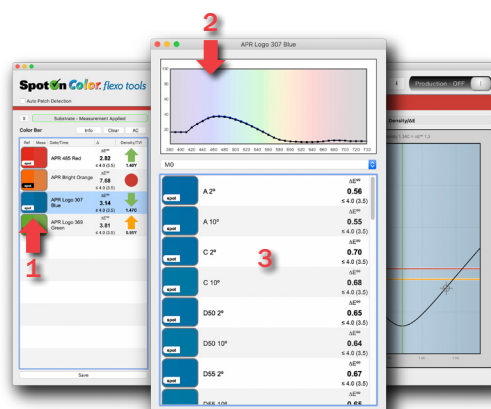
1. *Jobs* view shows all jobs that use the selected color standard.
2. *Customer* view shows all customers that use the selected color standard.
3. Select one or more customers (or jobs) to see the pass/fail history for that color globally.



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

## Color Spectral Curve & Illuminate Variations

1. At any point the user can double-click on a color swatch block to open reflectance details for the color.
2. The top graph shows the reflectance curve for the selected measurement.
3.  $\Delta E$  values for different illuminants are listed at the bottom.





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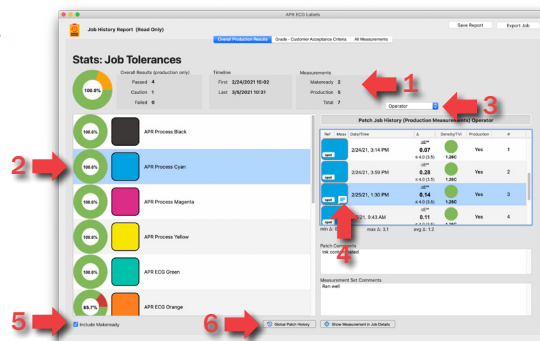
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## Report - Overall Production Results

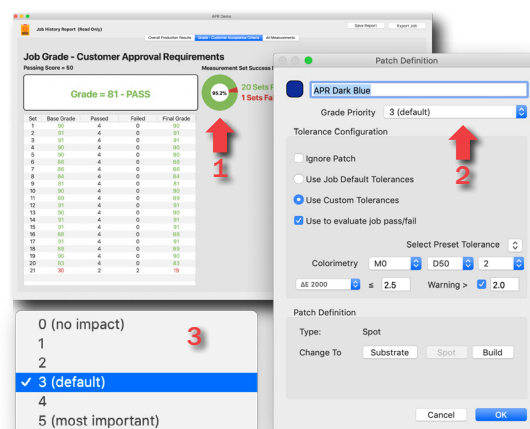
Select *View Report* from the Job Selector window.

1. At the top is a summary of the overall job results.
2. Select a color to see specific details related to that color.
3. Select the desired group to view details.
4. Specific color and measure set comments are noted by a text bubble on the color swatch and the comments can be seen at the bottom.
5. Un-check to hide *Makeready* data.
6. For an overview of how a color performs across multiple jobs or customers select *Global Patch History*.



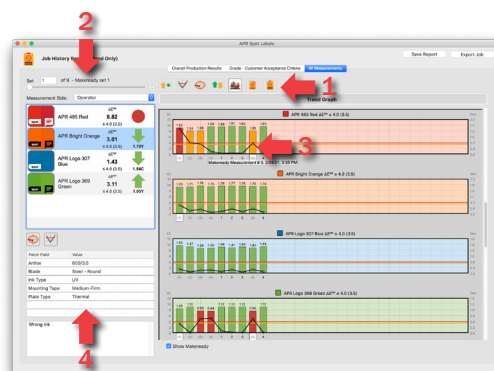
## Report - Job Grade (Score Carding)

1. This is an evaluation of the overall pass fail for a job's entire run history. Only Production measurements are included in these results.
2. When creating a new job, you have the opportunity to change the job definition which includes how a color is graded.
3. By default a color's value/weight is set to 3. For example a brand color may rank higher (weighted at a level of 5) than a line black for simple text (weighted at a level of 1).  
 0 = No impact on Grade - of no real importance  
 5 = High impact on Grade - high value color



## Report - All Measurement Details

1. This interface looks very similar to the Measurement interface. The same dashboard widgets are available.
2. A slider is available at the top to navigate through all the measurement sets.
3. Using the Trend Graph display widget, the user can interactively jump to color measurements of interest by selecting the desired bar in the graph.
4. The run specs, measurement details and comments for that color in that specific measurement set will automatically display on the left.





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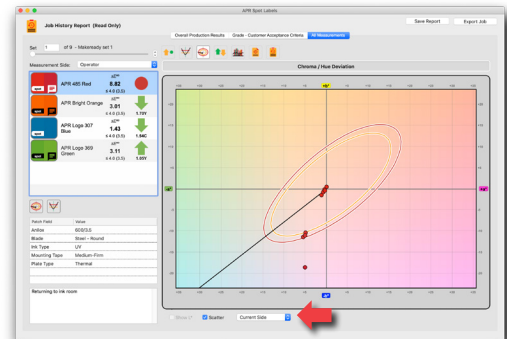
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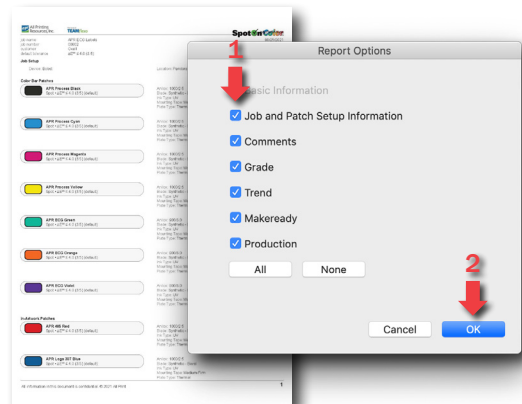
## ...Report - All Measurement Details

Using the LCH Deviation display widget, the user can check *Scatter* to see a scatter plot of all measurements. This is another useful way to collectively examine measurements and look for trends in performance.



## Job Report PDF

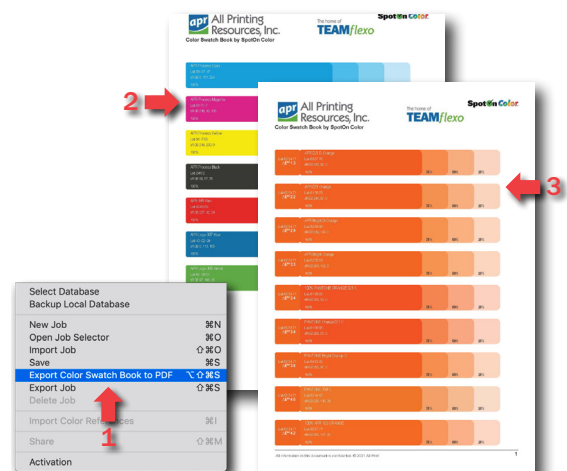
1. Check the desired information.
2. Select OK to generate a report that can be printed or shared.



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

## PDF Swatch Book

1. Go to the *File* menu and select *Export Color Swatch Book to PDF*.
2. Select desired Library and colors and *Add* them to *Selections*.
3. Another option is to connect a spectrophotometer and measure a desired color to create a list of the closest color matches from current color standards in the color library. Select the closest matches wanted for the swatch book. Check *Show comparison to measurement at the top*.



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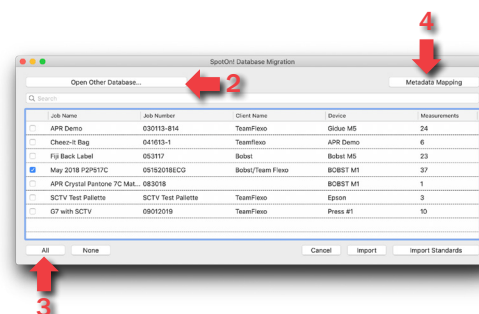
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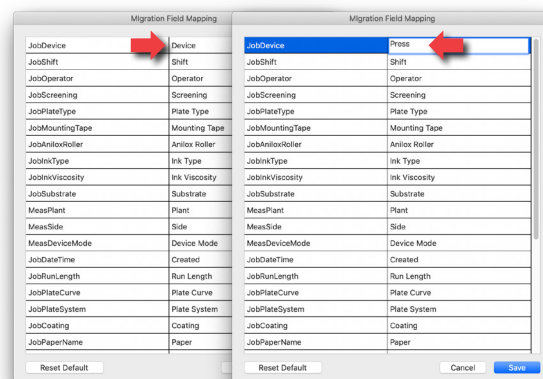
## Option 1: Migrate Jobs from SpotOn! Flexo

1. Select *Import From SpotOn! Flexo v2* from the Job Selector window.
2. If searching on the same computer from where the SpotOn! Flexo database is stored the list of jobs will automatically appear. If no list appears, then select *Open Other Database...* and navigate to the desired SpotOn! Flexo database.
3. Select *All* or the specific jobs to import. This will import the job details, measurement history and color standards.
4. To remap the metadata tags to a new name select *Metadata Mapping*.



SpotOn! Flexo had fixed metadata tags applied to jobs and colors in a job. It is possible to revise SpotOn! Flexo metadata tag titles to something different.

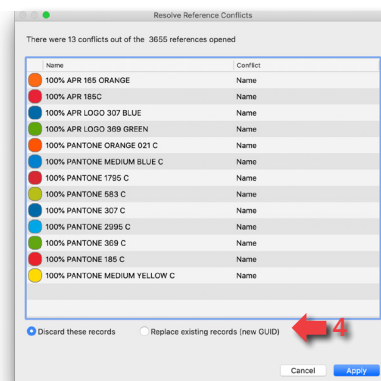
For example changing the job metadata tag "Device" to "Press".



You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

## Option 2: Migrate Standards from SpotOn! Flexo

1. Select *Import From SpotOn! Flexo v2* from the Job Selector window.
2. If searching on the same computer from where the SpotOn! Flexo database is stored the list of jobs will automatically appear. If no list appears, then select *Open Other Database...* and navigate to the desired SpotOn! Flexo database.
3. Select *Import Standards*. This will only import color standards from SpotOn! Flexo (no jobs and no measurement history).
4. If SpotOn Color sees there are duplicate colors already in the Color Library it will list them and ask if the new colors should replace the current library colors.





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## General Questions:

### Does SpotOn Color require a Server App?

No. SpotOn Color licenses are networked differently than SpotOn! Flexo. There is no longer a proprietary server application. Based on customer feedback and standard industry practices, SpotOn Color uses a multi-user networked configuration that connects to your I.T.'s preferred database server. This places control over performance, backup, and load-balancing in your hands.

### Does SpotOn Color calibrate my spectrophotometer or is this done separately?

SpotOn Color supports many popular spectrophotometers. Most of the supported spectrophotometers are calibrated through SpotOn Color. Once you have connected your spectrophotometer from the corresponding menu, you may select to calibrate the instrument as appropriate. Some units, like the Xrite eXact, will force a calibration automatically through the device itself at which point simply follow the device screen prompts.

### I have my spectrophotometer hooked up to the computer but it is not showing up in SpotOn Color?

Depending on the type/model of spectrophotometer the drivers may have not been installed or SpotOn Color did not detect the drivers. Try the following steps:

1. Make sure the spectrophotometer is connected to the computer per the manufactures instructions.
2. If on a Mac with a virtual machine setup, make sure the spectro is connected to the desired Mac or Windows platform accordingly.
3. Try disconnecting and reconnecting to the port on the computer.
4. If it shows the device is connected but it is not taking measurements, than select Disconnect and select Connect again.
5. Run the OEM diagnostic software such as Xrite i1Diagnostics or eXact Manager or Techkon SpectroConnect software applications. This will help determine if there is something wrong with the device itself
6. Make sure another color measurement application (such as ink formulation software) does not currently have the driver locked down. It is recommended to only have one application open at a time.
7. If none of the above work, close the application and reopen and connect.

### Can I scan a color bar with my spectrophotometer?

Yes. Provided you have a scanning enabled spectrophotometer you can scan a row of colors in SpotOn Color; however, SpotOn Color does not require scanning a row of colors nor does it require a specific color sequence. Spot measurements are common, especially in Flexo. SpotOn Color has a Auto Patch Detection feature that compares measurement data to colors in the color list and automatically matches the measurement to the appropriate color even when read out of sequence.

### Can I move SpotOn Color from one computer to another computer?

Yes. Go to the File-Activation menu to first deactivate the license and then reactivate once moved.

### I am getting a message that my substrate measurement is darker and more chromatic than my substrate threshold?

In some cases the substrate is in fact much different than a typical white substrate (example a yellow paper or metallic substrate). If you know you are correctly measuring the substrate, than you can adjust this threshold under Preferences-Substrate Threshold.

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## Network Database Setup:

### What are the server hardware requirements?

SpotOn Color does not need a server platform. There is no server application. It can run on a standard Windows, Mac, or Linux platform. System requirements are minimal and the database file size is small. An entry level system should work for most configurations. SpotOn Color System Requirements.

### Can we setup the server ourselves or does SpotOn Press or APR have to be involved?

Yes. An installer is available specifically for SQLExpress. Your I.T. representative, preferably a database administrator familiar with databases, will be able to easily complete the database configuration. Towards the end of this document we provide several database scripts that can be used for various database systems. We do recommend that you perform a test with the client though, as differences from one database configuration to the next can produce surprises that we can help correct. These are typically trivial and quick to address.

### How do we setup the database schema?

Scripts are provided for the above-mentioned database servers. In the case of CubeSQL, your local database can be uploaded into the server via the CubeSQLAdmin tool.

### We don't have a database, what should we do?

CubeSQL and PostgreSQL are free or low-cost solutions that are easy to configure and manage and have the ability to import your SpotOn Color local file-based database. MySQL Community Server requires a minimal amount of configuration and is free and performs well. We can also provide contact information for a cost-effective provider we recommend for I.T. services to help setup, manage, or even host your database needs.

### Does every SpotOn Color client application require a distinct database user login?

No, but this is entirely up to you. You can use a single user to login from every client which simplifies management. You can break workgroups up into sets which each use a distinct login. Alternately every client can have their own login to the server for maximum control, although this is not a typical configuration.

### What privileges does the user need?

The user needs read/write privileges. They do not need to create drop or modify tables, and they do not need to administrate other users.

### How will future database schema updates be applied?

When using the local database, SpotOn Color will seamlessly apply all needed updates. With a networked server, the updates will be delivered as a script to your IT representative so you can choose the time to update, and ensure that production is not disrupted.

### Can we access the database with a reporting tool so that we can create custom reports that are not available within the software?

Yes. The database has been designed with reportability in mind, and we encourage you to investigate this benefit. It is important that you do not modify the data within the tables as they could cause unpredictable results in SpotOn Color.



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## Network Database Setup:

### **My database is configured right, but I cannot connect from the client software?**

The following should be checked or tested:

- Ensure that the required ports are open on both client and server.
- Try entering the server's IP address rather than machine name.
- For Microsoft SQL Express, make sure to append the instance name to the address (e.g. 10.0.1.24\SQL-EXPRESS)
- Additionally for SQL Express, make sure you have configured the server to accept remote connections, as this is turned off by default, and specify using SQL Server authentication.

### **My database is configured and is connecting to the client software, but I am not able to create a job, or add metadata fields, or add colors to the library?**

Check that the user set up in the database has both read AND write capabilities. Also check to be sure you are using the correct activation code for a Production or Creator license. The Viewer license is for viewing only and does not allow the user to create a job, add metadata fields, or add colors to the library..

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## System Requirements:

### Does SpotOn Color support scanning measurements?

Yes. SpotOn Color can be used to scan measurements for devices with scanning capabilities.

### Can I back up my SpotOn Color color libraries?

Yes. SpotOn Color allows Customer Color Libraries to be exported as .cxf files.

### Will this operate in a virtual environment?

Virtual server environments are supported.

### What are the CPU/Memory/Storage requirements?

64bit. Windows 10 or newer, Mac OS X 10.13 or newer. Minimum of 300 mb free hard drive space. Minimum of 8 gb Ram.

### What are the Supported Server Operating systems?

Server OS is recommended but not mandatory. Server requirements of storage and bandwidth are minimal, but will need to be scaled with the number of clients and demand put on the system. Virtual server environments are supported.

#### Macintosh minimum



**64bit Mac capable of running mac OS 10.13 or newer** (*Big Sur is supported*). Recommended 8GB of Ram. 100mb of free hard drive space for the application, and additional free space for local database files. Actual amount depends on usage and demand.

#### Windows minimum



**64bit PC capable of running Windows 10 or newer**  
Recommended 8GB of Ram. 100mb of free hard drive space for the application, and additional free space for local database files. Actual amount depends on usage and demand.

You can click the links above to proceed directly to the desired section, then scroll to navigate that section.

#### Supported Servers

SpotOn Color requires a client supplied database when used in networked mode (multi-user). Supports local database, MS SQL (and Express), MySQL, PostgreSQL, and CubeSQL.

Server OS is recommended but not mandatory.

Server requirements of storage and bandwidth are minimal, but will need to be scaled with the number of clients and demand put on the system. Virtual server environments are supported.

#### Supported Spectrophotometers

- **Konica Minolta MYIRO-1** (coming soon)
- **Techkon SpectroDens**
- **X-Rite eXact**
- **X-Rite Ci64** (Windows only,  $\Delta E$  and Spectral only)
- **X-Rite iPro/2/3/Plus\*** (supported in SpotCheck module which is included in Production and Creator licenses)

\* iPro is restricted from use in pressroom software by X-Rite.