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CUST 330 - Color Development Process Integration with PTC Windchill FlexPLM

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Optimize color workflow to reduce non-value added data entry into multiple systems and leverage IPLM system integration. Adopt a color workflow recognized as industry best practice that will position Lands' End for growth.

Lands' End partnered with Natific to utilize their ASAP tool. We engaged a third party partner, Silvertip Labs, to develop a process through their reflex adaptor application.

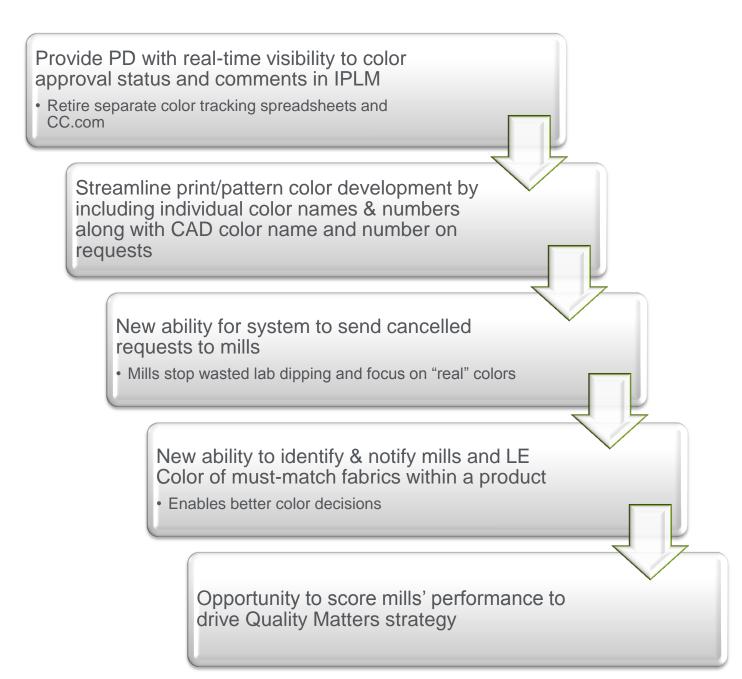
Scope of Project

- Improve speed and accuracy of color development from palette to production:
- Implement color analytical tool (X-Rite Color iQC), color workflow management tool (Natific's ASAP), and Mill Certification program to improve speed and accuracy of color approvals
- Provide corporate visibility to color approval status, and eliminate manual data re-entry by integrating Natific's ASAP with IPLM.
- Implement Natific's Color Warehouse to gain visibility to mill bulk production color performance and integrate results into IPLM

Benefits of Project

- Eliminate data re-entry into color analytical tool and FlexPLM
- Gain ability to track work in progress within organization and across supply chain, saving time and reducing emails chasing information
- Reduce time to lap dip approval and refocus on bulk dye lot accuracy

- Gain visibility to all bulk dye lots produced for Lands' End instead of just the first bulk dye lot, thus driving consistency and accuracy
- Accredit and certify mills of proven quality and leverage bulk production history from color warehouse into a performance scorecard to feed Lands' End Sourcing strategy



What was our Issue?

VERY MANUAL PROCESS!!!

- Previously all Material Color ID's created on a daily basis were sent to the mills.
- Results were not updated in PTC Windchill FlexPLM on a timely basis.

 Processed hundreds of lab dips that were never attached to developments. Color team was months (up to 6 months at one time) behind in updating color status.

- Users had to manually export a library view of the material colors and import the file to an excel macro spreadsheet.
- All users were building manual tracking charts to maintain the status of the lab dip and bulk submits.

Steps take to automate the process.

- Needed to identify MCID's that were attached to active BOM's and active style/colors for given seasons.
- Needed to have requests sent automatically to Natific.
- Needed ability to capture individual MCIDs within a pitch sheet.
- Needed to capture statuses electronically and eliminate the need for manual data entry.
- Needed ability to provide up-to-date status recaps to the business.

What Changed



The Color Team is moving to a web portal solution to process color development requests and color evaluation results · Moving away from emails as means of communication Integration of IPLM and ASAPTM to eliminate manual data re-entry into multiple systems Mills must register and subscribe for ASAP portal access to view requests and results Requests will feed daily: IPLM → ASAP Results will feed daily: ASAP → IPLM No need to track color approval status in separate Excel spreadsheets!

Mills may elect to become LE Color Certified or CAP Accredited to graduate to self-approval privileges

New →

Fabric Report used to generate color development requests twice weekly

Lab dip requests are manually emailed to mills

Mills print out color forms from email to submit physical color to LE Color

LE Color evaluates color submission digitally & visually

Color submission information retyped into CC.com along with evaluation results

Results are individually emailed to mills

Color evaluation results manually keyed into IPLM

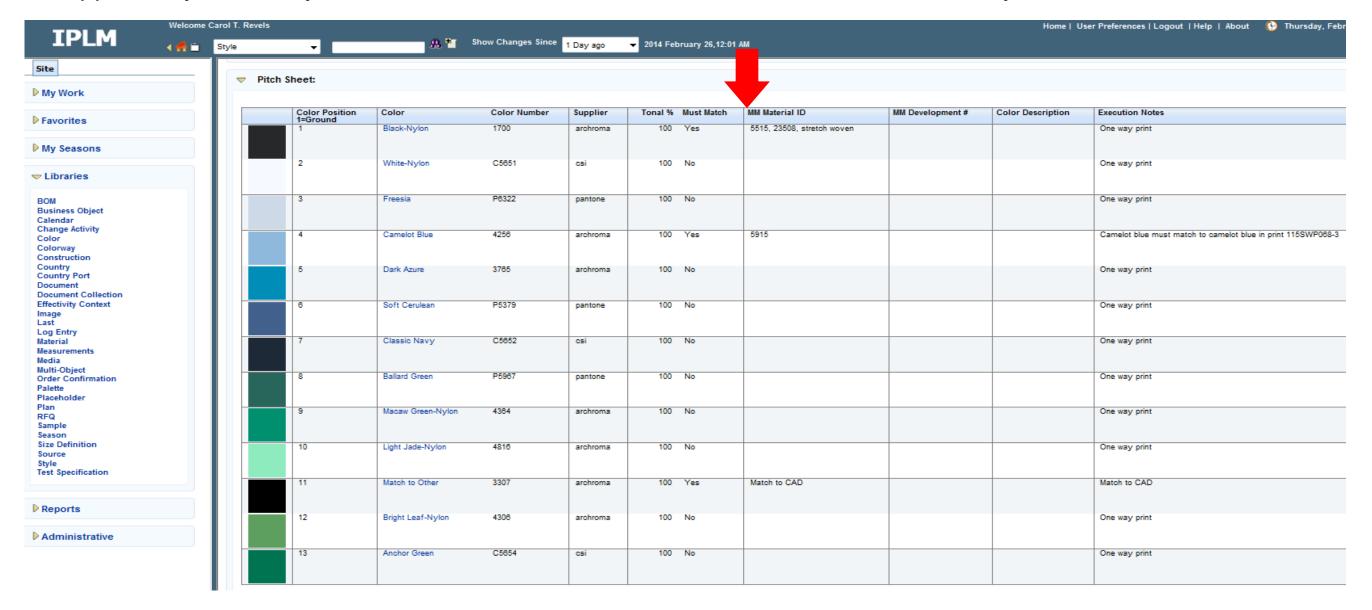
- Mills must register with natific & subscribe for access to the ASAP web portal
- IPLM feeds ASAP all color development requests daily, ending manual emails
- Mills access LE color requests daily in ASAP
- Mills print out color forms from ASAP to submit physical color to LE Color
- Certified mills also submit digital color measurements into ASAP
- No change
- Just the color evaluation results loaded into ASAP
- Mills view results in ASAP
- ASAP feeds results to IPLM

Original Way of Sending Color Requests

- Would run a Material Color library search by all MCID's created for a date range
- Results were processed through an excel macro that would parse out the individual requests to the mill/vendor and then the files were emailed. VERY MANUAL!!!!
- - Some teams would work around the system and submit requests on their own. The files would be incomplete and create additional work on the color team to track back the missing information.
- Results would need to be manually keyed back in to the PTC Windchill FlexPLM. The backlog of data to be loaded into the PTC Windchill FlexPLM system reach 6-8 months. Not ideal when trying to maintain visibility to teams to make informed decisions.



- Implemented Pitch Sheet functionality which continues to work well across PD teams
 - Virtually eliminated incorrect color requests within patterns
 - Opportunity to identify must-match solid colors to ensure Color Team has visibility



Speed:

Time to process strike-off dropped from 15 to 3 minutes.

1st Round Approval Rate

• Lab Dips	<u>2012</u>	<u>2013</u>	<u>2014</u>
Solid	52%	63%	70%
Pattern	43%	43%	50%

- Bulk Lots
 - Solid & Pattern 85% 89% 95%

Accuracy:

Best-Can-Do & Color Difference

• BCD	<u>2012</u>	<u>2013</u>	<u>2014</u>
Solid	31%	16%	10%
Pattern	85%	32%	25%

Results.....ASAP



LANDS'END

natific ASAP



Color Development Request Results

Color Name: Icy Blue Color #: C6034 Request Type: LabDip for Visual Evaluation

Date: 2012-11-14 02:12:56 Work Order Number: LE-20121108-124521- Submit Round:

Dyehouse: Submit Status: Approved FSRR: Not FSRR

APPROVED

Package Information:

CAD Image Name 412WK043-42 Material Color Id 150175 Categories Using Color 85 - WXR KNIT TOPS

Creator gsfazen Designer User Development Number

Material Id 22391 Supplier Status active Must Match False

Jersey 100% Cotton 5.16

Fabric Details oz Yarn Dye 0.00 x 0.00 - Original Supplier Name

Package Retailer Comment:

Request Information:

Color Code 36Y Color Description Color Supplier csi

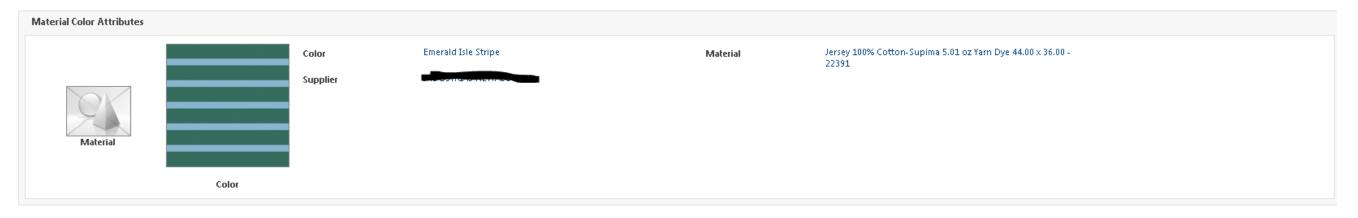
Fabric Information:

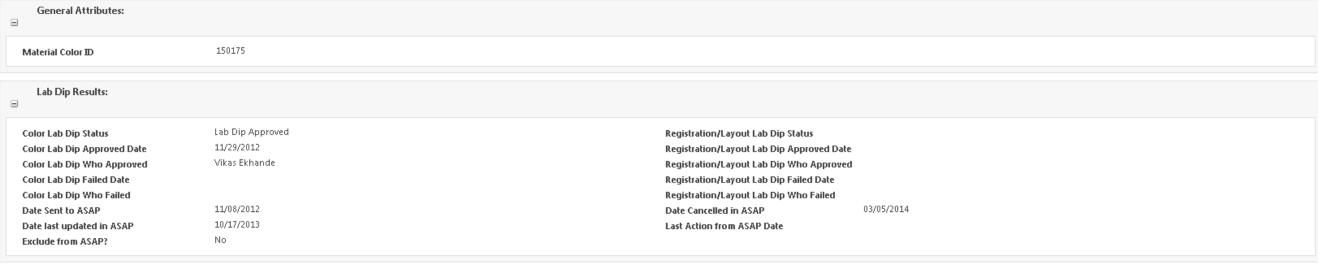
Master Substrate ID: Knit_146gsm_100COT Dyehouse Substrate ID: Dyehouse Substrate ID:

Dyehouse Comment:

Supplier/Vendor/Retailer Comment:

NO Darker





Production Color Results:			
+			

Individual	Lab	Dip	Results:

Edi							Edit			
Pass Fail Indicator	Round Number	Mill Lab Dip Submit #	Lab Dip Submit ID #	Daylight CMC DE	Incandescent CMC DE	UL 3000 CMC DE	LE Comments	Result Actor	Result Timestamp	Supplier Comments
Pass	1	Emerald Isle C5817 : LE-20121108-124521-1596	06b03140-0af5-4cde	0.50	0.50	0.50	Vikas - 11/30/2012			No comments.
Pass	1	Icy Blue C6034 : LE-20121108-124521-1596	f57fbbf8-860d-443d	0.42	0.71	0.26	NO Darker			

Results.....ASAP



LANDS' END (1)

natific ASAP



Color Development Request Results

 Color Name
 True Blue
 Color #
 2823
 Request Type
 LabDip for Digital Evaluation

Date 2014-01-06 21:00:04 Work Order Number LE-20131209-191954- Submit Round

Dyehouse Submit Status Rejected And Resubmit FSRR Not FSRR

REJECTED AND RESUBMIT

Package Information

Material Color Id 168365 Creator gsfazen Development Number WMSS1350464

 Material Id
 21329
 Supplier Status
 obsolete
 Must Match
 True

 Categories Using Color
 58 - BO KNITS
 Original Supplier Name
 Season Developed
 FH14

Jersey 90% Polyester, 10% Spandex 4.81 oz Yarn Dye 42.00 x 66.00 -

21329

Package Retailer Comment

Request Information

Color Code TUU Color Supplier archroma

Fabric Information

Master Substrate ID KNIT_JERSEY_0_gsm_90POL10SPA Dyehouse Substrate ID

Material Id 21329

Dyehouse Comment

Supplier/Vendor/Retailer Comment

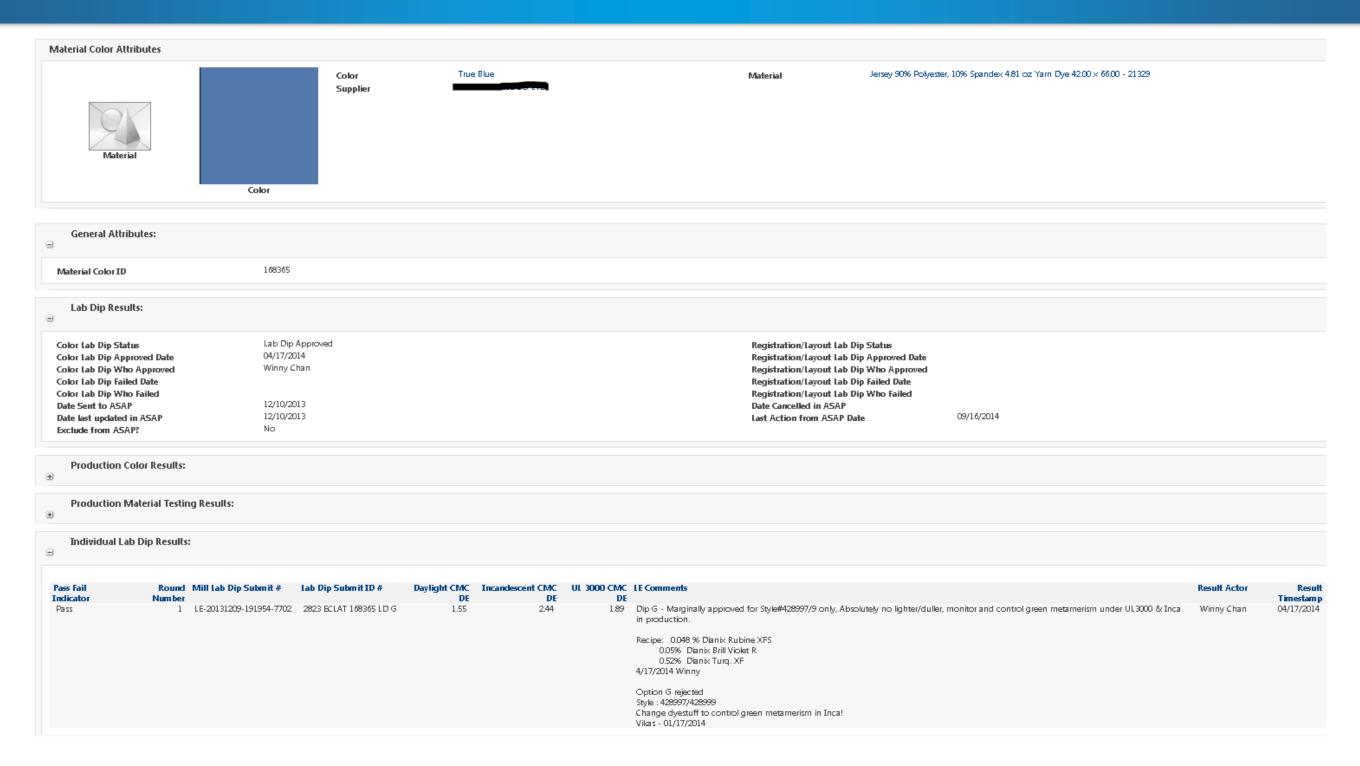
Option G rejected Style: 428997/428999

Change dyestuff to control green metamerism in Inca!

Vikas - 01/17/2014

Results PTC Windchill FlexPLM





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