



Patterson Reduces Material Creation Time by 60% with Automated Solution

Erin Leuschke, Director – Corp BI & Kyle Stengel, Data Solutions Engineer
Patterson Companies

Session ID #84471

About the Speakers



Erin Leuschke

- Director – Data & BI
- 7 years at Patterson, last 3 as Director of BI & Data
- Fun fact: I road-biked 130 miles in 5 days across CA Wine Country & Pacific Coast last year



Kyle Stengel

- Data Solutions Engineer
- 3 years at Patterson, 2.5 with Winshuttle. Intern turned FTE.
- Fun fact: I'm a HUGE NBA fan (go Timberwolves!) – if you want to talk hoops, let's chat.



Key Outcomes/Objectives

1. Show Winshuttle Forms & Workflow solving a business problem
2. Understand real implementation process and solution
3. What happens when you succeed

Agenda

- Business problem and objectives
- Winshuttle solution
- Results
- What's Next

Patterson Companies

- Founded in 1878
- Corporate Office in Eagan, MN
- ~7,000 employees (1,500 field employees)
- \$5.5B Annual Revenue
- Dental & Animal Health industries
- Supply technology, products, and equipment as well as marketing, support and logistics services across North America and the U.K.



Business Problem

- Field Sales can request materials be added to item file to meet customer needs
- Current process is PDF form submitted via email
- Materials can take 10+ days to be added to item file
- Submissions tend to be incomplete
- Manual entry can result in data integrity issues

Objective of the project

1

Improve data accuracy

2

Improve speed of overall process

3

Simplify form/provide transparency for requestors

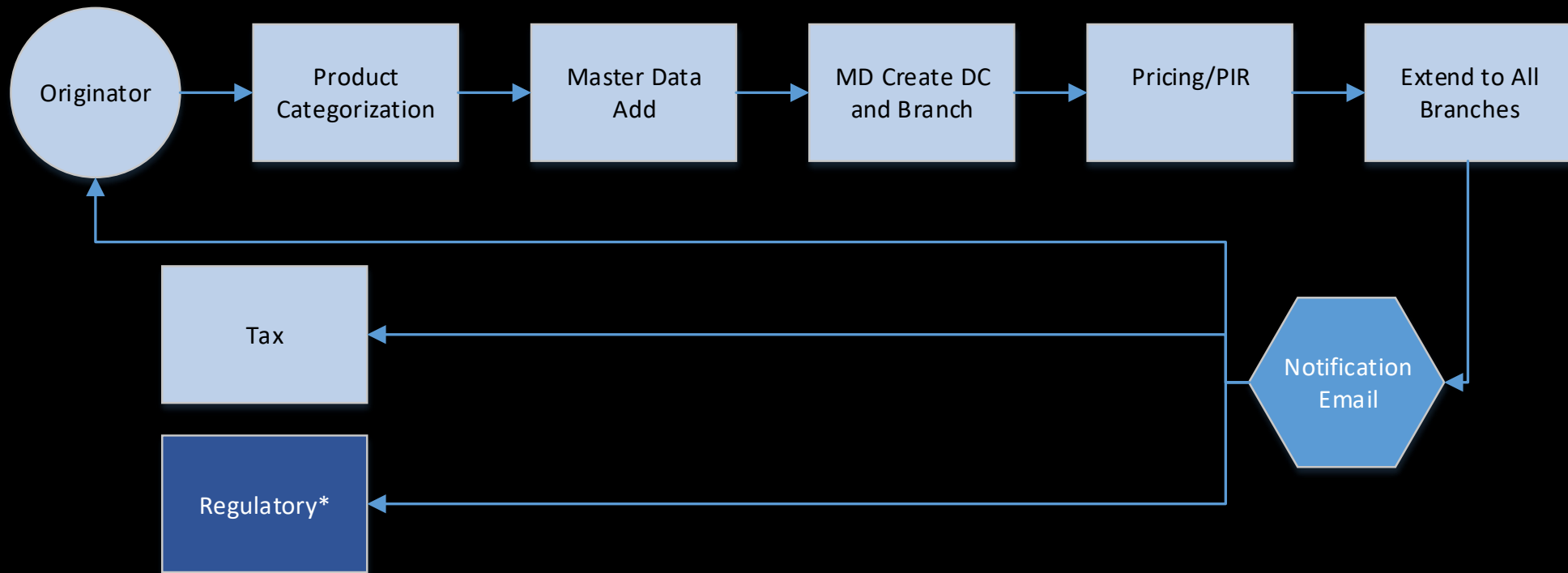
4

Create performance metrics for reporting

What is Winshuttle?

- SharePoint Integrated web Form/Workflow Solution
- Queries to extract SAP data to Excel, SQL or Access databases
- Transaction scripts to automate SAP data entry





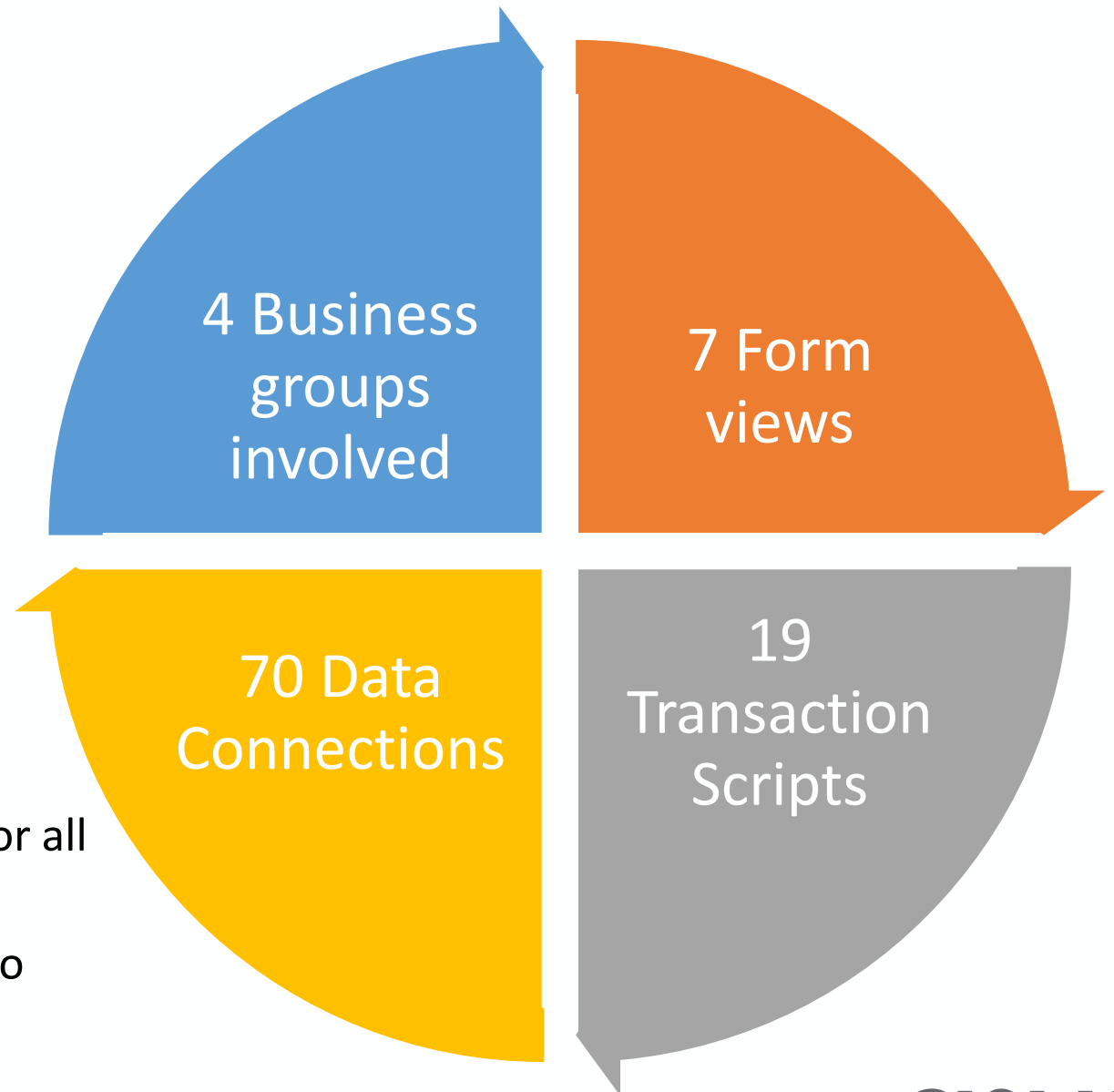
Design of Workflow

- Originator – initiates the request
- Product Categorization – assigns/validates Product Hierarchy
- Master Data – validate fields, create item in 2 locations for extension
- Pricing/PIR – Create pricing (2 conditions avail.) and create the PIR
- Master Data – Extension to all branch locations

Solution Structure

Underlying Data Structure

- Extract Data nightly from SAP into SQL tables
- Query Scripts used to pull check table values for all fields
- Stored Procedures used to format raw data into views that feed the form



User Landing Page

- SharePoint integrated!
- Choose your form
- See submitted requests
- See outstanding tasks for WF groups
- Location to link training material

BROWSE PAGE SHARE EDIT

EDIT LINKS

Form Solutions

Branch Requested Non-Stock

Master Data Only

Material Vendor Update
Equipment Return
Unique ID Extension
Material Status Change
Unique ID Submissions

Submitted Requests

Branch Requested Non-Stock Submissions

Tech Edge Support Only

Parts Form
Parts Submissions

Training Materials

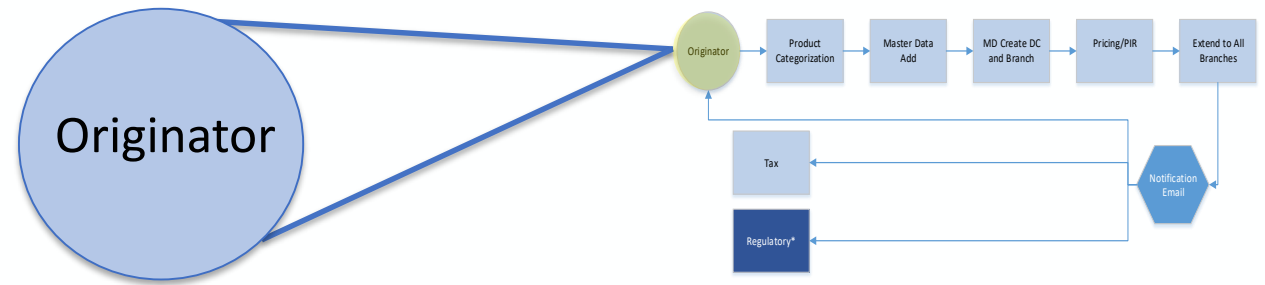
Branch Requested Non-Stock Job Aid
Branch Requested Non-Stock Microlearning
Branch Requested Non-Stocks FAQ and Troubleshooting
Winshuttle Task List

Showing all Items

Item ↓	Site	Process Time	Due Date	Task Name
NSD-03757	/forms	0:25:32	4/26/2019 9:01:53 AM	Master Data Dental Validate
NSD-03756	/forms	1:42:15	4/26/2019 7:45:10 AM	Master Data Dental Validate
NSD-03755	/forms	17:27:57	4/25/2019 3:59:28 PM	Master Data Dental Validate
NSD-03754	/forms	17:29:35	4/25/2019 3:57:50 PM	Master Data Dental Validate
NSD-03753	/forms	17:31:50	4/25/2019 3:55:36 PM	Master Data Dental Validate
NSD-03752	/forms	18:06:27	4/25/2019 3:20:58 PM	Master Data Dental Validate
NSD-03751	/forms	18:40:33	4/25/2019 2:46:52 PM	Master Data Dental Validate

The Form

1. Initial Request Form



Stengel, Kyle ?

Non-Stock Material Creation

perations ▾

Request Info

Originator

Business Unit of New Item *

Patterson Vet Patterson Dental

Material Description *

Manufacturer Vendor Number *

Search by Vendor Name or Number

Manufacturer Name

This is the name of the Manufacturer we are selling under

Manufacturer Part Number *

Customer Name

- Allow Customer Service Reps and Sales Reps to initiate

- Almost direct replacement for PDF form

- show/hide fields based on input

- Use of lookups

1.5. Master Data Validation

Originator	
New Material	
Copy From Item Number <input type="text" value="000000000070358077"/>	Copy From Item Description * <input type="text" value="GLOVE ZOOBY FLVRD LATX GROWLIN' GRRRAPE"/>
Manufacturer Part Number <input type="text" value="123"/>	Material Description * <input type="text" value="New test item1"/>
Pricing Reference Material Number <input type="text"/>	Material Description (New) <input type="text" value="New test item1"/>
	Pricing Reference Material Description <input type="text"/>
Category Management	
Product Hierarchy <input type="text" value="010620062010"/>	Product Hierarchy Description * <input type="text" value="GLOVES LATEX"/>
Internal Comments	
Internal Comments <input type="text"/>	

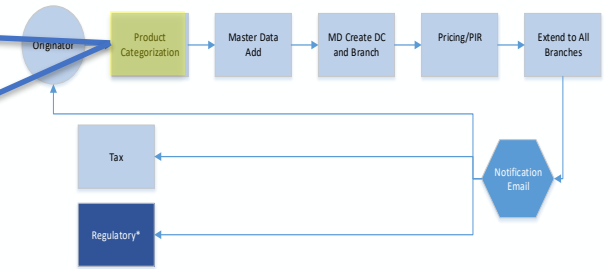
- Validation of the copy from number

- Add Pricing Reference

- Validate Description

2. Validate/Change Product Categorization


Product
Categorization



Stengel, Kyle ▾

Save **Approve** **Cancel**

Category Management

Product Hierarchy  Product Hierarchy Description *
GLOVES LATEX

New Material

Copy From Item Number Copy From Item Description *
GLOVE ZOOBY FLVRD LATX GROWLIN' GRRRAPE

Manufacturer Part Number Material Description *
New test item1

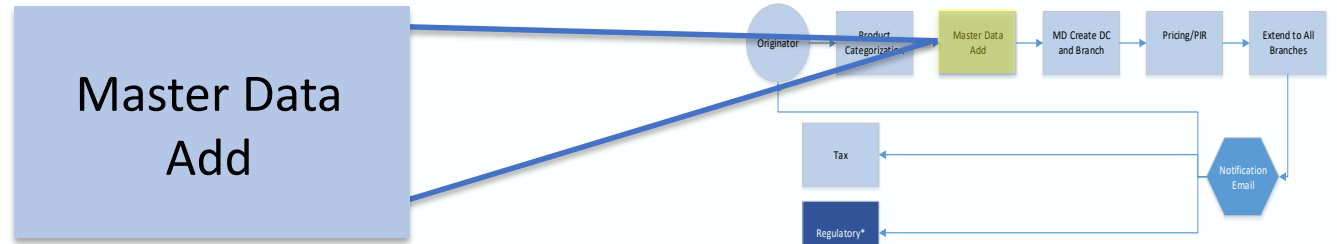
Material Description (New)

Pricing Reference Material Number Pricing Reference Material Description

Internal Comments

Internal Comments

3. Fill out Master Data



Stengel, Kyle ▾ ?

Operations ▾

Request Info

Originator

New Material

Copy From Item Number 000000000070358077	Copy From Item Description * GLOVE ZOOBY FLVRD LATX GROWLIN' GRRRAPE
Manufacturer Part Number 123	Material Description * New test item1
Material Number * <input type="text"/>	Material Description (New) New test item1
Pricing Reference Material Number <input type="text"/>	Pricing Reference Material Description <input type="text"/>

[Continue Processing](#)

Category Management

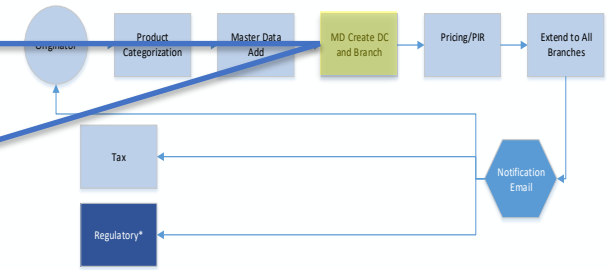
Product Hierarchy 010620062010	Product Hierarchy Description * GLOVES LATEX
-----------------------------------	---

Comments Group

- Add material # created from legacy
- Auto formatting (padding)
- Expand/show fields using buttons

4. Create item in SAP

MD Create DC and Branch



Stengel, Kyle

Vendor Details

Manufacturer Number 0000104764	Sell Vendor 0000104764	Reporting Vendor 0000104764	Purchase Vendor 0000104764
Manufacturer Name YOUNG DENTAL MANUFACTURING	Sell Vendor Name YOUNG DENTAL MANUFACTURING	Reporting Vendor Name YOUNG DENTAL MANUFACTURING	Purchase Vendor Name YOUNG DENTAL MANUFACTURING

Patterson Custom Fields

<input type="checkbox"/> Break Pack	<input type="checkbox"/> Pack in Ice	<input type="checkbox"/> Perishable Item	<input checked="" type="checkbox"/> Initialization
DEA Schedule [Dropdown]	Species [Dropdown]	Tax CL Code TAX00	Loyalty EARN
Material Request Source BR			

MRP

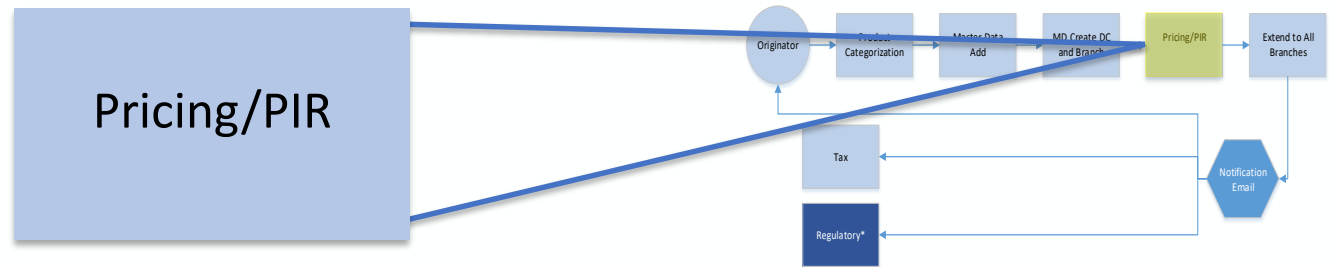
MRP Controller 109 - Mick Garcia	MRP Type PD - MRP	Rounding Profile [Dropdown]	MRP Group [Dropdown]
Volume 0	Net Weight .01	Gross Weight .01	ABC Indicator N
Volume Unit IN3 - Cubic inch	Weight Unit LB - US pound	Lot Size EX - Lot-for-lot order quantity	Fixed Lot Size 0

- Vendor/Manufacturer
- Custom fields
- MRP
- Valuation and Sales
- Warehouse/Storage Loc.
- Material group data
- Characteristics

77/120 fields pre-populated

- Copy from similar item
- Business rules

5. Create Pricing Conditions and Purchase Info Record (PIR)



Save Terminate Cancel

Dental ZMAT Pricing

Sales Organization 2100 - Patt Dental Supply	Distribution Channel 10 - Direct	Manufacturer Part Number 123
Amount *	Validity Date From 03/29/2019	Validity Date To 12/31/9999
ZMAT Currency USD	ZMAT Quantity 1	ZMAT Unit of Measure BOX
Scale Quantity 1	Scale Amount 1	
Scale Quantity 2	Scale Amount 2	
Scale Quantity 3	Scale Amount 3	

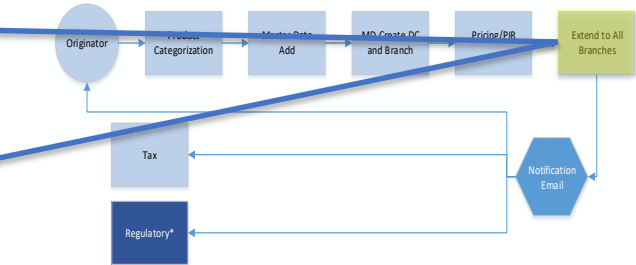
Dental ZMAT Pricing SAP

Create ZMAT Dental No Scale

- Two kinds of pricing conditions + PIR creation

6. Bulk Extend

Extend to all Branches



BAPI_MATERIAL_SAVEDATA_EXTEND																																										
BAPI_MATERIAL_SAVE_DATA_EXTEND_Run	Materi_al_Nu_mber_3	Indust_ry_se_ctor	Materi_al_Ty_pe_1	Plant_1	ABC_Indicator_1	Purchasing_Group_1	MRP_Type_1	MRP_Contr_oller_Type_1	Good_deliver_ables_Days_1	Procurement_in_Terms_of_Days_1	Reorder_Po_intent_2	Safety_Stock_Check_1	Minim_Stock_Quantity_1	Fixed_Lot_Size_1	Rounding_value_1	Total_replenishment_Maximum_1	Scheduling_in_Hour_1	Total_replenishment_Time_in_Days_1	Checking_Group_Availability_1	Count_of_Units_1	Lot_Size_Product_Costing_1	MRP_Grouping_Procedure_1	Physical_inventory_Grouping_Profile_1	Serial_Number_Profile_2	Round_off_Decimal_places_1	Default_stocking_Minimum_safety_stock_1	Indicator_auto_purchase_Plant1_Plant2_Plant3	Reorder_point_Quantity_1	Storage_Quantity_1	Storage_Bin_1	Picking_a_ware_house_for_Plant3	Moving_average_Stand_price_Unit_2										
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1010	1010	ROD	0		00		1010	ROD	1	0	0
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1011	1011	ROD	0		00		1011	ROD	1	0	0
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1013	1013	ROD	0		00		1013	ROD	1	0	0
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0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1015	1015	ROD	0		00		1015	ROD	1	0	0
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1016	1016	ROD	0		00		1016	ROD	1	0	0
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1017	1017	ROD	0		00		1017	ROD	1	0	0
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1020	1020	ROD	0		00		1020	ROD	1	0	0
0000	P	ZFR1		N	109	PD	109	17	10	EX	F	0	0	0	0	0	0	0	0001	0	02	00000	1		C			ROD	0		1021	1021	ROD	0		00		1021	ROD	1	0	0
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Extend to all Plants

- Creates data for all 71 plants
- Allows for exclusion of specific locations
- Replaces MMCC and provides better data quality

Request Library



forms [EDIT LINKS](#)

NonStock_Material ⓘ

Search this site

Home	Title	Created	Modified	Originator	Process Status	Dental or Vet	Vendor Name	Material Description	Material Description Requested	Manufacturer Part Number	Manufacturer Part Number Requested	Comments
Documents	NSV-03054	2/26/2019 4:14 PM	2/26/2019 4:14 PM	Jones, Conni	Submitted	V	MYDENT INTERNATIONAL		BITE TRAY POSTERIOR		BT-1002	2019-02-26 16:03:15: Jones, Conni (Original Request) - Please see the attached vendor email with all pricing information
NonStock_Material												
TestSolution	NSV-02860	2/7/2019 3:06 PM	2/7/2019 3:06 PM	Kramer, Lisa	Submitted	V	SPA DENT INC		Natural Prophy Paste + Whitening		U122008-1	
Parts_Material_Request												
Material_Vendor_Update	NSV-01922	11/16/2018 11:37 AM	11/16/2018 11:37 AM	Anderson, Deborah	Originator Submit Complete	V	MEISINGER USA LLC	Polisher, white, medium, RA				2018-11-16 11:29:15: Anderson, Deborah (Original Request) - needs 5 packs ordered when item number is assigned.
Equipment_Returns												
Equipment_ID_Extend												
Material_Status_Change	NSV-00680	8/14/2018 9:13 AM	8/14/2018 9:13 AM	Hilton, Judith	Originator Submit Complete	V		Mouthgaurd Mat. 0160 12/Box Royal Blue				
Site Contents												
EDIT LINKS	NSV-00246	7/9/2018 9:24 AM	7/9/2018 9:24 AM	Hinsley, Tracey	Originator Submit Complete	V		Extended length irrigation lines				
	NSD-03707	4/22/2019 7:45 AM	4/23/2019 6:55 PM	Calello, Maureen	Branch Request Complete	D	NORDENT MANUFACTURING CO	FORCEPS EXTRACTING ENGLISH #74 SERRATED	FORCEPS ECTRACTION ENG #74N SERRATED	FE74N-SER	FE74N-SER	2019-04-22 07:43:40: Calello, Maureen (Original Request) - Please create ASAP. Thank you !!
	NSD-03706	4/22/2019 7:43 AM	4/23/2019 6:38 PM	Calello, Maureen	Branch Request Complete	D	NORDENT MANUFACTURING CO	ELEVATOR SELDIN STRAIGHT #34S SERRATED	ELEVATOR SELDIN 34S-SERRATED	E34SSR	E34SSR	2019-04-22 07:41:34: Calello, Maureen (Original Request) - Please create ASAP. Thank you!
	NSD-03705	4/22/2019 7:41 AM	4/24/2019 10:04 AM	Calello, Maureen	Branch Request Complete	D	NORDENT MANUFACTURING CO	BONE FILE DE MILLER 21 CROSS CUT	BONE FILE, MILER 21 CROSS CUT	FB21X	FB21X	2019-04-22 07:38:24: Calello, Maureen (Original Request) - Please create ASAP. Thank you
	NSD-03704	4/22/2019 7:38 AM	4/24/2019 9:14 AM	Calello, Maureen	Rejected - See Comments	D	NORDENT MANUFACTURING CO	CARVER DE MED #CD2 STD HDL	CARVER DE MED #CD2 STD HDL	CACD2	CACD2	2019-04-24 08:59:21: Lark, Kyah (Original Request) - Hi Maureen - It looks like this one is on file as well, The part number was mistakenly CACD-2, but I've updated it to CACD2. You can use to order. Thanks! 2019-04-22 07:35:09: Cal

Evaluating Objectives

1

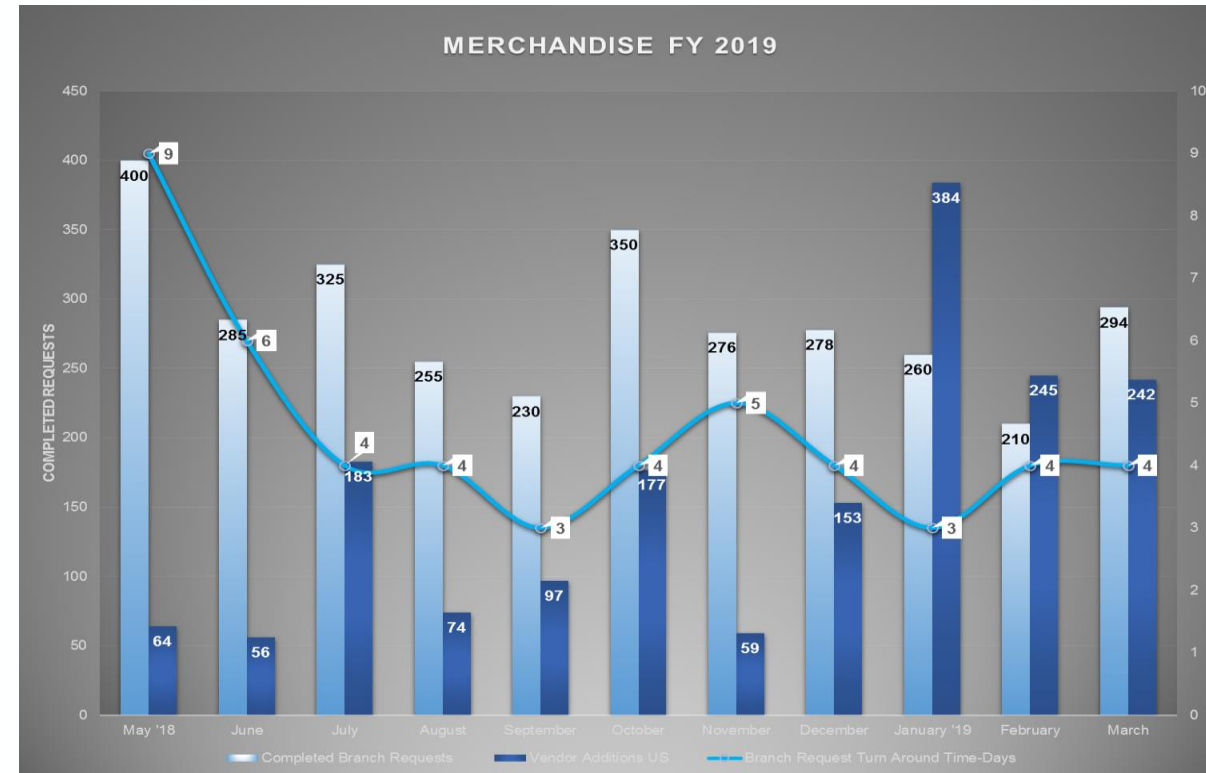
Improve Data Accuracy

- Pre-populate fields using business rules
- Limit choices using drop-down menus
- Additional MD validation step
- Auto-formatting
- Show/hide fields

2

Improve speed of overall process

- 3-4 days consistently



Evaluating Objectives

1

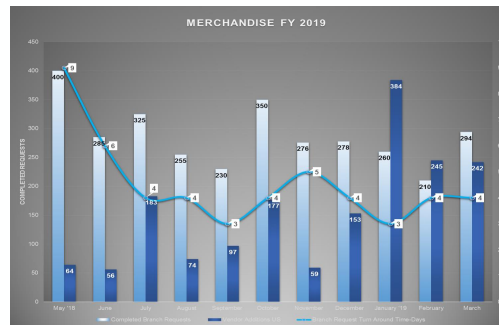
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Improve speed of overall process

- 3-4 days consistently



3

Simplify form/provide transparency for requestors

- One easy to navigate SharePoint page
- Only a few fields for input

4

Create performance metrics for reporting

- Time stamp each WF step
- Aggregate number of requests

The Timeline

THE PLAN

Key Milestone	Month	Contractor Hrs
Contract Signed	July	
Design	August	24-60
Install	September	17-40
Develop	Oct – Feb	300-680
Test	March	Incl. above
Go-Live	March	
Support	April	40-80
TOTAL	9 months	381-860 hours

THE REALITY

Key Milestone	Month	Contractor Hrs
Contract Signed	July	
Design	September	40
Install	November	40
Develop	Nov – April	680
Test	Feb - April	Incl. above
Pilot Deploy	April	
Round 2 Dev	April – June	80
Full Go-Live	July	
TOTAL	12 months	840 hours

What Impacted Timeline or Hours?

- Internal Team took time to prepare & align for Design phase
- Cross Functional Alignment (or lack of) & Focus on Pre-Install activities delayed timing of Install
- Development shifted to Agile methods (Iterative Design & Testing) and Phased Roll-Out plan (Pilot then Full Go-Live)

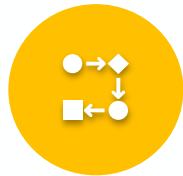
Feedback from Users

- Originators love the simplicity and visibility to their request
- Better Copy-From numbers being selected
- Less back and forth with issues
- Requests for more forms!

Round 2 – Parts Request



MAKE IT EASIER FOR
MASTER DATA



NO WORKFLOW



NO IMPACT TO USERS IN
THE FIELD

- Utilized template created after launch of first form
- Development time cut by 60%
- Applied lessons learned
 - Slow down and plan
 - Test, test, and test again
- Testing time table shortened by 50%

Parts Request - Results

- T-Code Process
 - 4 Separate T-Codes
 - 33 Fields
 - 47 Clicks
 - 2:57 Process Time
- Form Process
 - 1 Form
 - 10 Fields
 - 14 Clicks
 - 1:49 Process Time

Almost 40% reduction in time!

Q&A

For questions after this session, contact us at

Erin.Leuschke@pattersoncompanies.com

Kyle.Stengel@pattersoncompanies.com

Take the Session Survey.

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Presentation Materials

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<http://info.asug.com/2019-ac-slides>

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