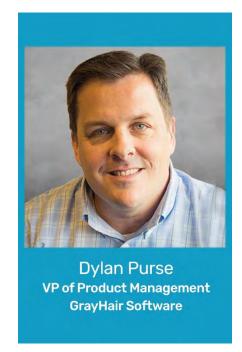


#### **Benefits of End-to-End Piece Visibility**

**Practical Application** 

Dylan Purse, GrayHair Software June 2019

#### **OUR PRESENTER**



#### WELCOME - LOGISTICS

- This webinar is being recorded
- All lines will be muted during the presentation
- Use the chat window to submit your questions
- Since we may not get to all questions submitted through the webinar chat, we will answer any open questions in a follow-up email
- A recording of this webinar will be emailed to you shortly after the webinar has ended



#### TODAY'S DISCUSSION

- Challenges to End-to-End Visibility
- Solutions Overview
- Dashboards Tell the Story
- Use Cases



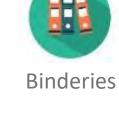
#### MANY VENDORS IN SUPPLY CHAIN



Service Bureaus

Lettershops





Comminglers









**Logistics Providers** 







### MANY DISPARATE SYSTEMS CAPTURE DATA

Production Imaging & Scanning



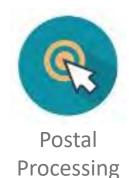


**Sorting Scans** 











## DATA IS INCONSISTENT AND DIFFICULT TO PIECE TOGETHER



Pieces are printed and addressed...



Then stacked in trays











**USPS** 

Then stacked on pallets...

Then sorts and delivers individual pieces

Then breaks pallets down to trays...

USPS receives pallets...



### MANAGING TO AN IN-HOME DATE IS CHALLENGING

- Full process from campaign conception to final delivery can be a months long critical path
- Coordinating vendors and avoiding common timing pitfalls can be daunting
- Many times when you hear that a delay has occurred it can be too late to react and still meet original planned dates

#### CHAIN OF CUSTODY TRANSITIONS

- As a Mail Owner, Transitions are Key Milestones
- As a Service Provider, Evidence of Timely Transitions Builds Confidence and Trust





# SOLUTIONS EXIST TO HELP MITIGATE THESE CHALLENGES

- Production monitoring systems provide job level data on how job is progressing through production process
  - These systems mostly rely on gathering machine counts from production equipment
  - Rarely does this data go to the individual piece level which is the level piece tracking takes place
- Intelligent inserting or auditing systems can provide piece level data on the inserting event but does not provide info on earlier or later events.
- Shop floor scanning of Intelligent Mail barcodes can provide piece level event data even when scanning pallet placards leveraging nesting data in eDocs.

### SOLUTIONS OVERVIEW – END-TO-END PROCESS

- Shop floor scanning system allows mailers to scan pallets to record production events related to the pieces on each pallet.
- eDOC data is used to provide piece level event data based on pallet placard scans
- Scan event data is sent to tracking system that ordinarily would only have events related to transportation and delivery. That system can now provide end-to-end data from printing through delivery

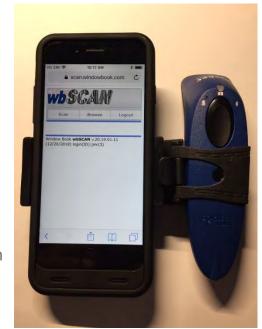
### SOLUTIONS OVERVIEW – DATA CAPTURE POINTS IN PROCESS

- Typical shop floor pallet scan events:
  - Printing (scan placard as you start printing pieces that end up on that placard)
  - Folding
  - Inserting
  - Palletizing scan placard when pallet is built and wrapped.
  - Warehousing
  - Staged for Acceptance
  - Accepted, ready to load
  - Loaded on trailer this scan can also be used to verify pallet is loaded on correct trailer



## SOLUTIONS OVERVIEW – DATA CAPTURE POINTS IN PRODUCTION

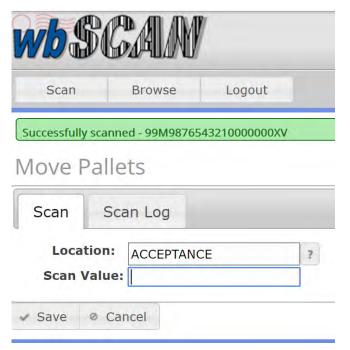
- Shop floor scanning can utilize a variety of different devices
  - Desktop or tablet computers located on each inserting line fitted with Bluetooth wireless scanner
    - Good for recording production events like printing, inserting, finishing, etc.
    - Can be used to record completion of pallet though handheld device might be better
  - Handheld devices using shop floor wi-fi network
    - Provides realtime visual feedback of exceptions and can also be used for other functions like QA and trailer manifest verification during loading.
    - Ideal for managing pallet location, movement to staging locations, trailer loading, (check with Dylan to finish thought)





## SOLUTIONS OVERVIEW – DATA CAPTURE POINTS OF ACCEPTANCE

- Record when pallets have been staged for USPS acceptance
- After acceptance scan again to indicate ready to ship but in some operations next event may be move to warehouse location or loading directly on trailer





# SOLUTIONS OVERVIEW – DATA CAPTURE POINTS IN TRANSPORTATION

- If mailer has trailer manifesting software, they can plan their trailers in advance.
- When mailer scans the pallet during trailer loading, not only can they
  record that this happened but verify that the pallet went on the right
  trailer.
  - Loader can also easily see if all planned pallets have been loaded
- Besides tracking the loading event, mailer can be sure that the wrong pallets don't end up on the trailer and that all were loaded!

### SOLUTIONS OVERVIEW – PULLING ALL THE DATA TOGETHER

- Systems like those described usually have their own mail production dashboard that provides an overview of what is happening with each job
  - This does not usually provide end to end data going right to delivery
- Pushing these events to a system that already has logistics, USPS processing and delivery events provides end-to-end visibility
  - Helps mailer and mail owner see if logistics or processing exceptions also had production exceptions
- Can also use other data posted to eDocs like spoilage removed from mailing



### SOLUTIONS OVERVIEW – EXPECTATIONS AND EXCEPTIONS

- Having access to scan data is important but it only identifies the knowns
- Understanding the gaps or unknowns is arguably more important
- Using eDoc and mail file data to build expectations of events and then using scan data to fill in the details is imperative for getting a true full picture

## ALERTS AND EXCEPTIONS CAN DRIVE DECISIONS AND ACTIONS

 Access to Data Visualizations allow you to analyze the data and find answers to questions

Dashboards provide high level summaries and drill down

capabilities





## DASHBOARDS TELL THE STORY WITH THE DATA

 Access to Data Visualizations allow you to analyze the data and find answers to questions

Dashboards provide high level summaries and drill down

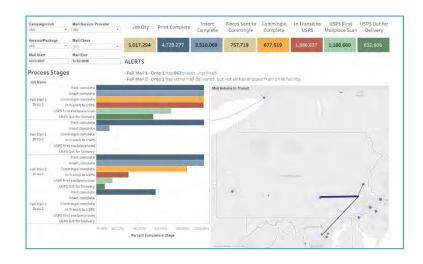
capabilities





#### DROP SHIP MAILER USE CASE

 Third party logistics scan events become very important in understanding end-to-end mail flow.





#### TRANSACTIONAL MAILER USE CASE

- Transactional mail usually requires every piece to be mailed
- Spoilage plays a big part in this use case. PDR/PBC in mail.dat file must reflect spoils
  - But there is not likely to be separate events for reprints, though that is possible. This is a big challenge for providing end-to-end visibility for ALL mailpieces.





#### Questions?

**REMINDER:** Please submit your questions via the chat window.





Thank you for attending today's webinar.

To learn more about our solutions, visit the GrayHair website.