Operating with One and Two Move Waybills

the Wilmington and Northern Railroad

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What we are going to cover

- Overview of CC&WB
- Overview of W&N and why my waybills look different
- Blocking as a car forwarding tool
- Types and functions of one and two move waybills
- How I restage between sessions

- Focus will be on owner rather than operator
- Not complicated on YOUR layout

Overview of Car Cards & Waybills

- CC&WB represents a prototype waybill
- Split into two parts in order to recycle/reuse paperwork on a model railroad
  - Car card carries car information
  - "Waybill" carries shipment information
- Four move waybills were standard since the waybill has four possible positions
- Generally two pairs of empty-load or load-empty shipments
- Four move standard, but not required

W&N Railroad

- Built 1870's between Wilmington, DE and Reading, PA - 72 miles
- Leased by Philadelphia and Reading Rwy in 1895
- Bought by P&R in 1900
- Interchanges
  - B&O at Wilmington (Elsmere Jct)
  - PRR at Wilmington, Chadds Ford, Coatesville, Suplee and Birdsboro
- After purchase, junction with P&R moved Reading to Birdsboro
- Layout set in Oct, 1903

Why do my CC&WB look different?

- 1903 - Waybill form hadn't been standardized
- "Car tickets" or memorandum waybills
  - Used 1880's-1900's
  - Various sizes
- Car tickets closely resemble CC&WB used on model railroads
- Empty car tickets/waybills used to the end of paper waybills

P&R Car Tickets

Form 5082 (Old No. 123). 501-

J&Co Car No. 503 508

The Philadelphia & Reading Railroad Co.

FROM Chapmans Switch

TO Hellertown

Via L&S &N.P.

CONSIGNOR, Wm Chapman

CONSIGNEE, Thomas Fronfes

Destination Hellertown

Via L&S &N.P.

Lading Stone Wt.
J&HS

Apl 7th 1886 Agent.

☞ Take care to leave this Ticket with car. ☜

COAL. Car No. 58657

The Philadelphia & Reading Railroad Co.

ST. CLAIR. Scales

From

To Fairview Pa

Via Park Jct
P&RR

Loaded at Lawrence C Co Coll'y

For Wood & Hall.

Size 88 Weight 21.19

Date 11/30 189 4

This ticket must accompany car to destination.
Should car be set out for defects or other reasons, Conductor will leave ticket with Agent having charge of siding where left, and report by telegraph to Division Superintendent why left, and note the same information on Form 4095 or 4137 to Transportation Master.

Form 4082

PHILA. & READING RAILWAY CO.
CAR TICKET

Owner's Initials	Line Initials	Car Number
J&R		4767

From

To St Nicholas

Via

Contents Mine Cars

Estimated Weight		Scale Weight

To Collect $ Prepaid $

Consignor Po Shops

Consigned to St Nicholas Cy

Final Destination

Via

Shipment is Billed via   (Give name of Fast Freight line.)

3/1 189 4 Agent.

☞ If this car breaks down or is transferred, it must be noted on this car ticket, giving number and initials of car transferred to, and at what station.

Form 4208

PHILADA. & READING RAILWAY CO.
EMPTY CAR

Owner's Initials	Line Initials	Car Number
J&R		4152

From Montgomery

To Shamokin

Via

Consignor W&K

Consignee

☞ This ticket must be used for empty cars only, to be issued by Agent, Train Master, Asst. Train Master or Yard Master.

A&RR

3/20th 189 4 Agent.

Model W&N Operation

- Dissatisfied with 4 move waybills
  - Lack of control over local work and train size
  - Hard to maintain blocking
  - Routings not appropriate to car
- Car ticket form lent itself to two move waybills
- Evolved to two waybill types
  - Two move – normal revenue moves
  - One move – special situations and everything else
- Interchanges/junctions as staging tracks
- One and two move waybills can be used with standard CC&WB formats, doesn't have to be 1900 era operation

Blocking as a tool

- Fundamental method of managing car movement on prototype RR's
- Block – a group of cars that will be handled together to the next location they are processed
  - Yard, interchange, connection, station, industry
  - Next destination (block), system destination, final destination
  - Cars ride in many different blocks during a trip
- Utilized the "VIA" line for blocking
- Color coding to help operators
- Sub blocks to help yard and industry jobs
- Helps operators know how to route and group cars

Prototype blocking

Example : Car on UP at LA going to CSXT at Chattanooga, TN
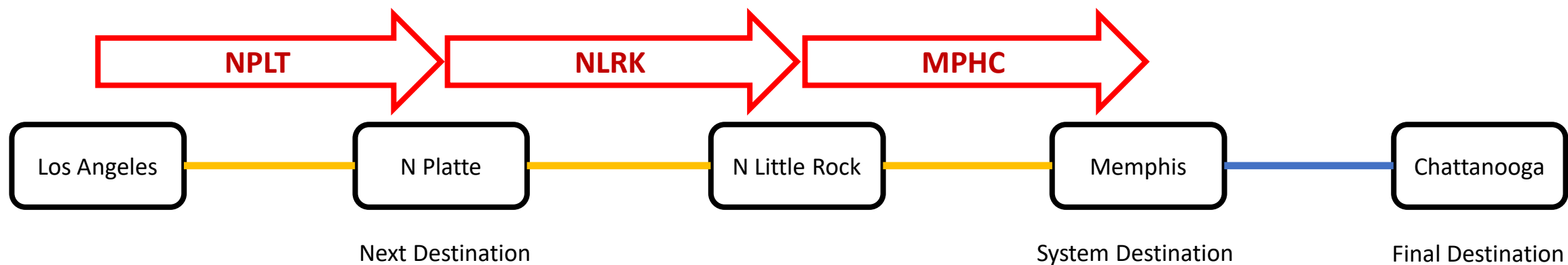
Blocking

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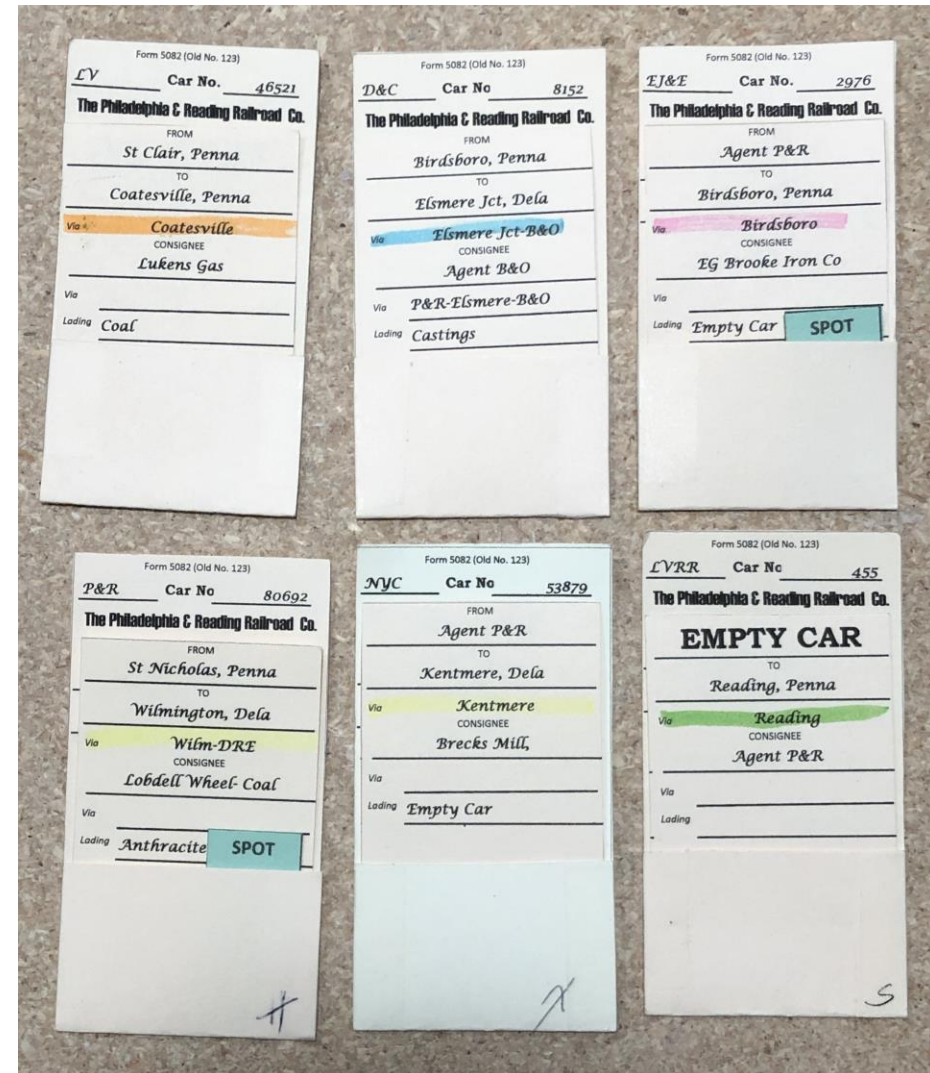- Helps operators know how to route and group cars

Object is to eliminate the "What do I do with this car?" questions so operators can focus on tasks rather than geography

Block coding

Block Code Poster
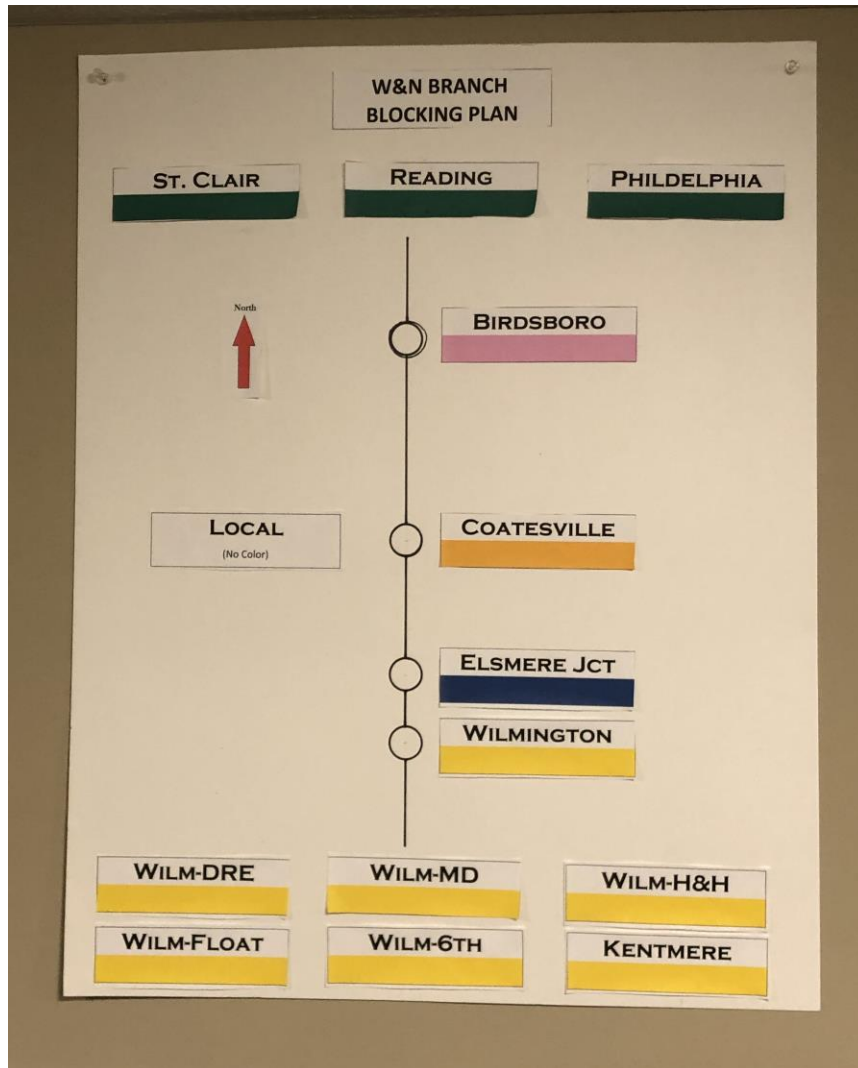
Block Codes on Waybills

Blocking Info

Train Blocking Sheets-Yardmasters

Agent Messages to Trains

WILMINGTON BLOCKING SHEET

Block size same as tonnage N of Coatesville

	Reading – Philadelphia-St Clair- Birdsboro Mixed
Extra North	
Coatesville Turn	Coatesville
No 51 North Local	Elvn / Joan / Supl / Mort
Kentmere Local	Ke

COATESVILLE BLOCKING SHEET

Extra North	Reading – Philadelphia-St Clair- Birdsboro Mixed
Coatesville Turn N	Reading – Philadelphia-St Clair- Birdsboro Mixed
No 52 North Local	Elvn / Joan / Supl
Extra South	Elsmere-B&O / Wilmington
Coatesville Turn S	Elsmere-B&O / Wilmington
No 51 South Local	Mort / Mont / Wilm

BIRDSBORO B...

Extra South	CVL / Elsmere-B&O / Wilmington
Coatesville Turn S Or Coatesville Turn S	Elsmere-B&O / Wilmington ; Coatesville
No 51 South Local	Joan / Elve / Supl / Mort / Mont
Trap Rock Turn	Trap Rock

PHILADA. & READING RAILWAY CO. — MESSAGE

To C&E NWD Frt At 6th
Frm Agent Wilmington

Montchanin pick up any north tonnage from the storage track permits

Coatesville set out Coatesvilles, north cars as tonnage permits

Fr Creek Jct fill with north c... tonnage permits

At Birdsboro service and tur...

PHILADA. & READING RAILWAY CO. — MESSAGE

Oct _____ 1903
To C&E SWD Frt At Birdsboro
Frm Agent Birdsboro

Fr Creek Jct pick up Wilmington and Elsmere Jct - B&O cars from storage track as tonnage permits.

Coatesville set out Coatesvilles, fill with South cars as tonnage permits

Montchanin pick up Wilmington and Elsmere Jct - B&O cars from storage track as tonnage permits.

At Elsmere Jct deliver Wilm -B&O and Elsmere Jct- B&O cars to the B&O, pick up W&N cars from B&O to tonnage
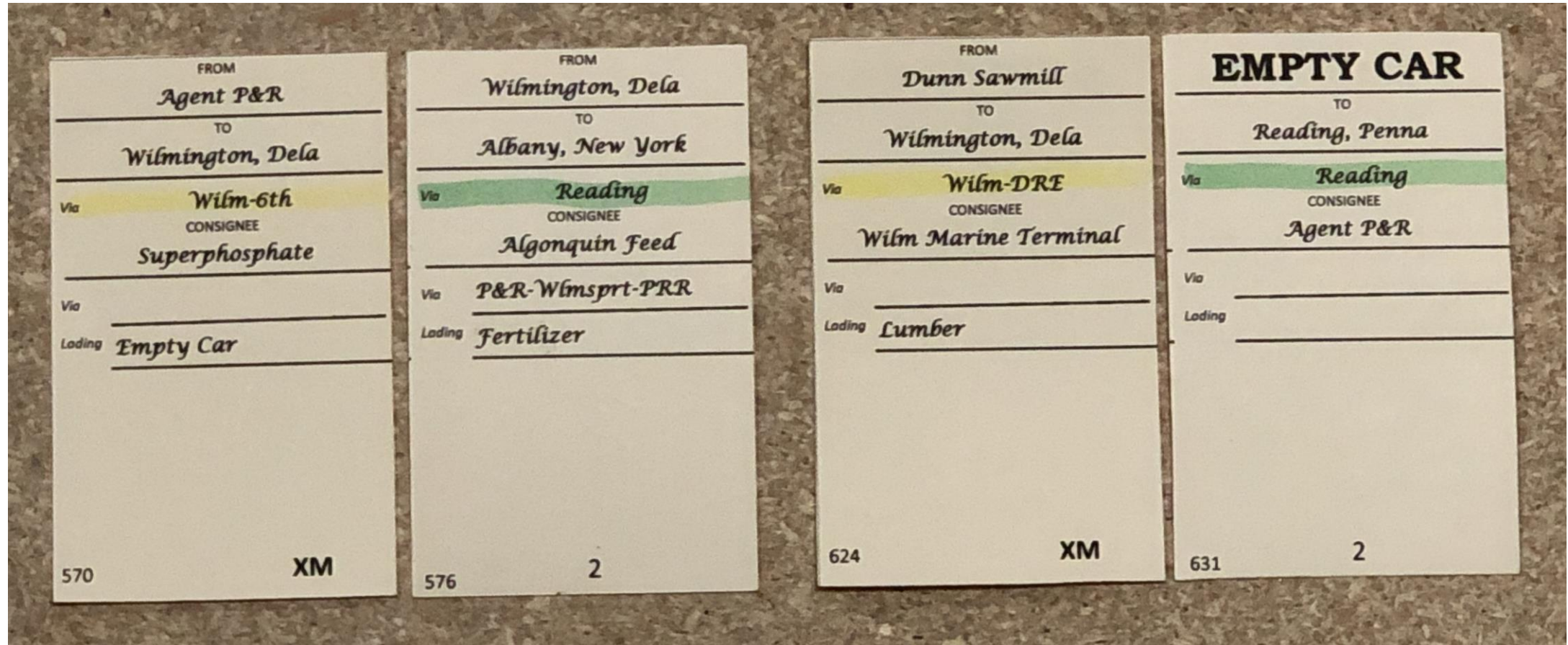
At Wilmington service and turn power

Two Move Waybills

- Normal movement

- Origin Load : Empty in – Loaded out
  - Move 1 - Empty car order to on line industry
  - Move 2 – Loaded move to industry, interchange, junction or staging

- Inbound Load : Loaded in – Empty return
  - Move 1 - Loaded move from interchange, junction, staging
  - Move 2 - Empty return move, usually reverse route

Origin Load
Move 1 Empty - Move 2 Load

FROM
Agent P&R

TO
Wilmington, Dela

Via — Wilm-6th

CONSIGNEE
Superphosphate

Via

Loding — Empty Car

570   XM

FROM
Wilmington, Dela

TO
Albany, New York

Via — Reading

CONSIGNEE
Algonquin Feed

Via — P&R-Wlmsprt-PRR

Loding — Fertilizer

576   2

Inbound Load
Move 1 Load - Move 2 Empty

FROM
Dunn Sawmill

TO
Wilmington, Dela

Via — Wilm-DRE

CONSIGNEE
Wilm Marine Terminal

Via

Loding — Lumber

624   XM

EMPTY CAR

TO
Reading, Penna

Via — Reading

CONSIGNEE
Agent P&R

Via

Loding

631   2

One Move Waybills

- Balance traffic flows to and from staging, handle excess cars
  - Overhead loaded moves to/from interchange/junction
  - Empty return to interchange/junction
  - Hold for local loading
  - Actions
    - Cleaning
    - Weighing (not used)
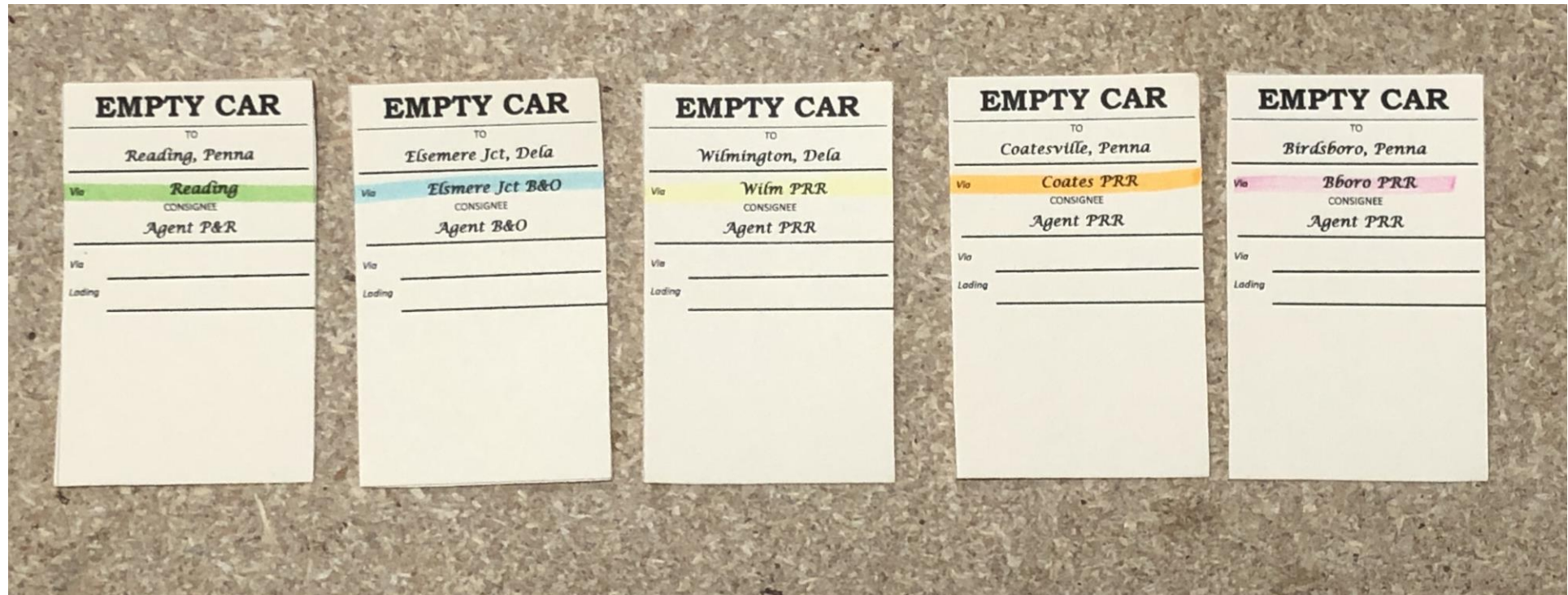   - Icing (not used)
  - Spot tags

Overhead loaded moves to/from interchange

- Balance traffic flows out of staging, resolves excess cars
- To and from "Agent", no specific lading, destination or consignee
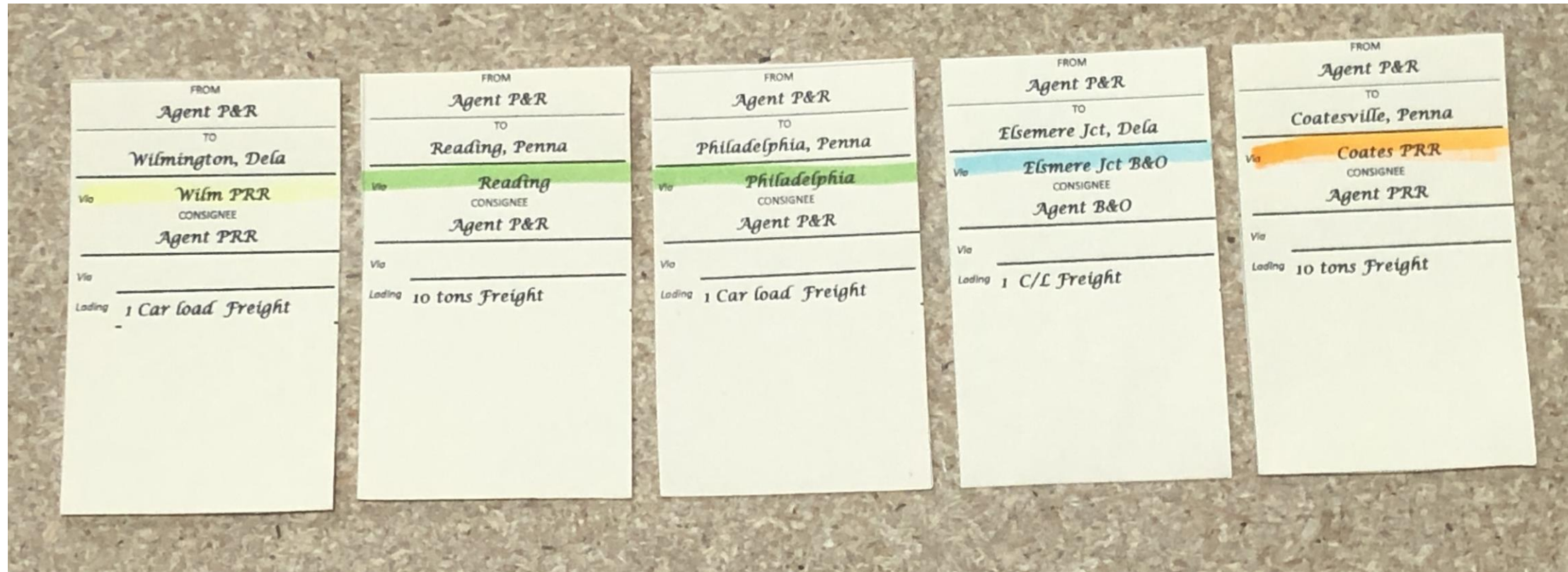
Empty return to interchange/junction

- Balance traffic flows out of staging, resolves excess cars
- To "Agent", no specific destination or consignee

Agent hold for local loading

- Accumulate empties to protect local industry loading
- On W&N : Gons to protect iron and steel mill loadings
  - System gons
  - Connecting road gons
  - Empty gons at mills
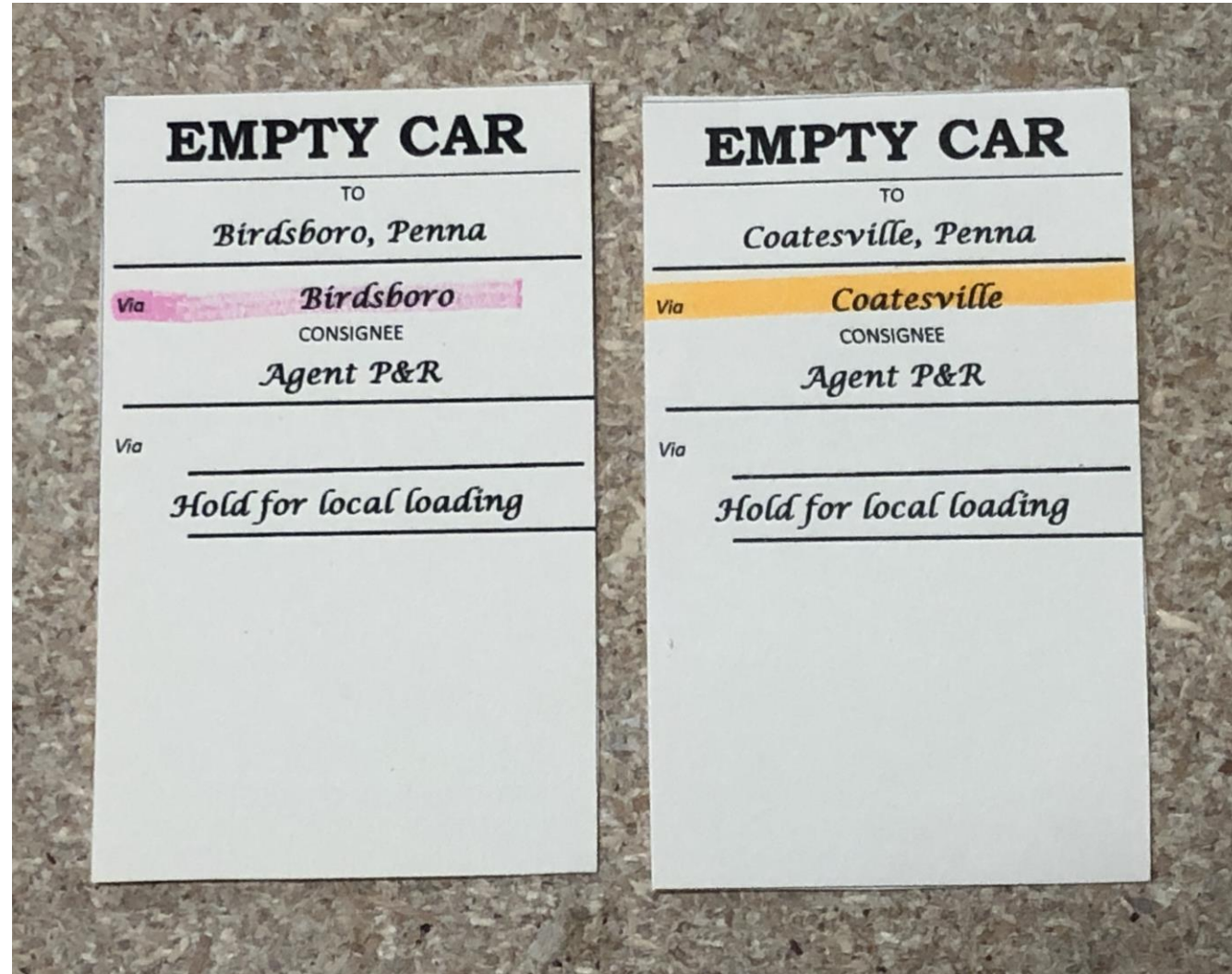
Actions: cleaning, weighing, icing

- Intermediate stops in a move

- Mostly cars that were spotted at industry

- Adds switching, doesn't require staging space
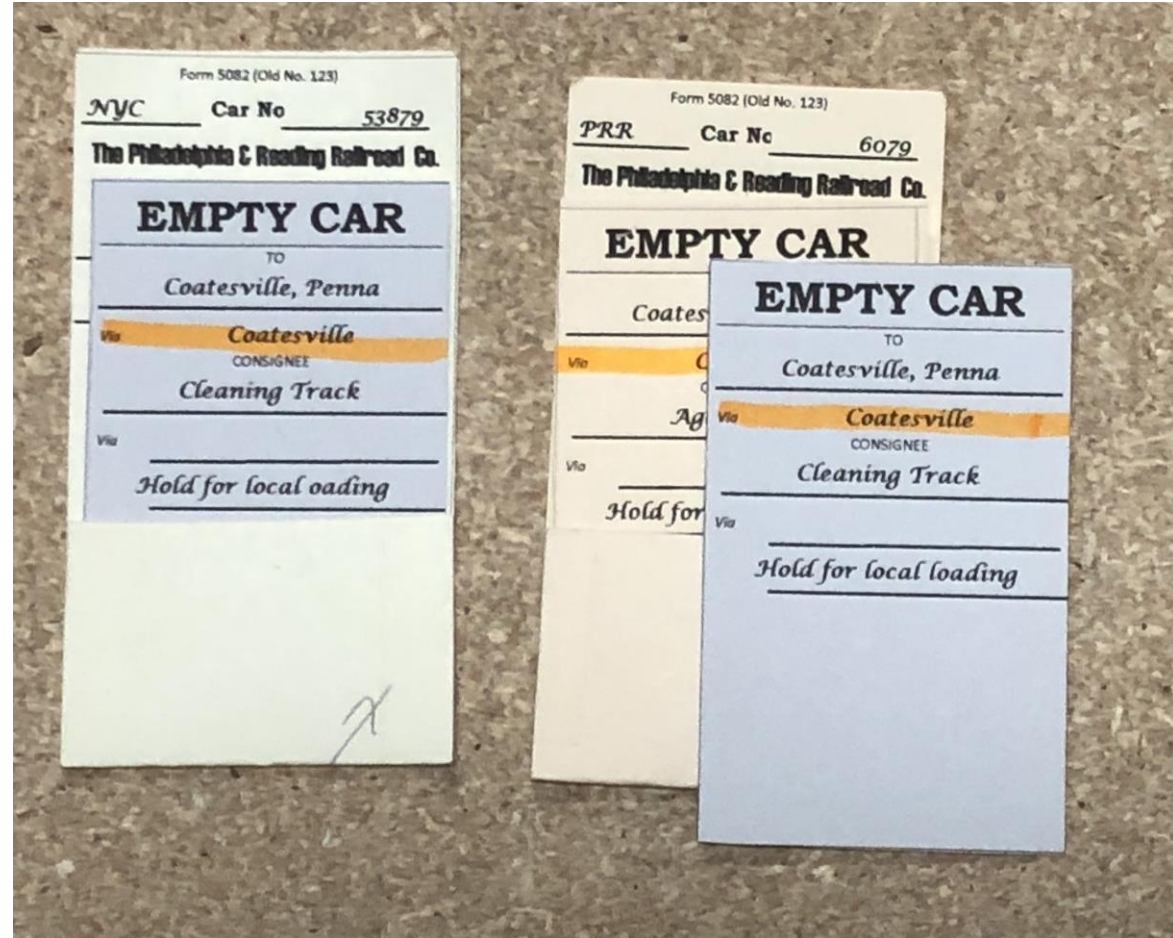
Spot tags

- Yards receive flow of inbound industry cars, don't want switchers spotting and respotting industries

- Inbound cars for next shift

- Concept is agent has created a "switch list" at start of shift to tell crew which cars to spot, tags mean car is on list

Using these waybills : Restaging

Assume all the trains to be operated in the previous session have run

1. Pull all waybills in interchange/staging
2. Turn/pull waybills at industry (cleaning, agent hold, empty return)
3. File waybills by station and industry
4. Select waybills to meet next session local/industry demand (trains)
5. Apply waybills to interchange and staging based on origin of move one or destination of move two
   a. Apply normal movement waybills
   b. Apply agent hold and cleaning waybills
   c. Apply empty and overhead waybills to what's left
6. Apply spot tags

Pull all waybills in interchange/staging*

* Unless cars are in an assigned service and always come back to the same industry

Turn/pull waybills at industry
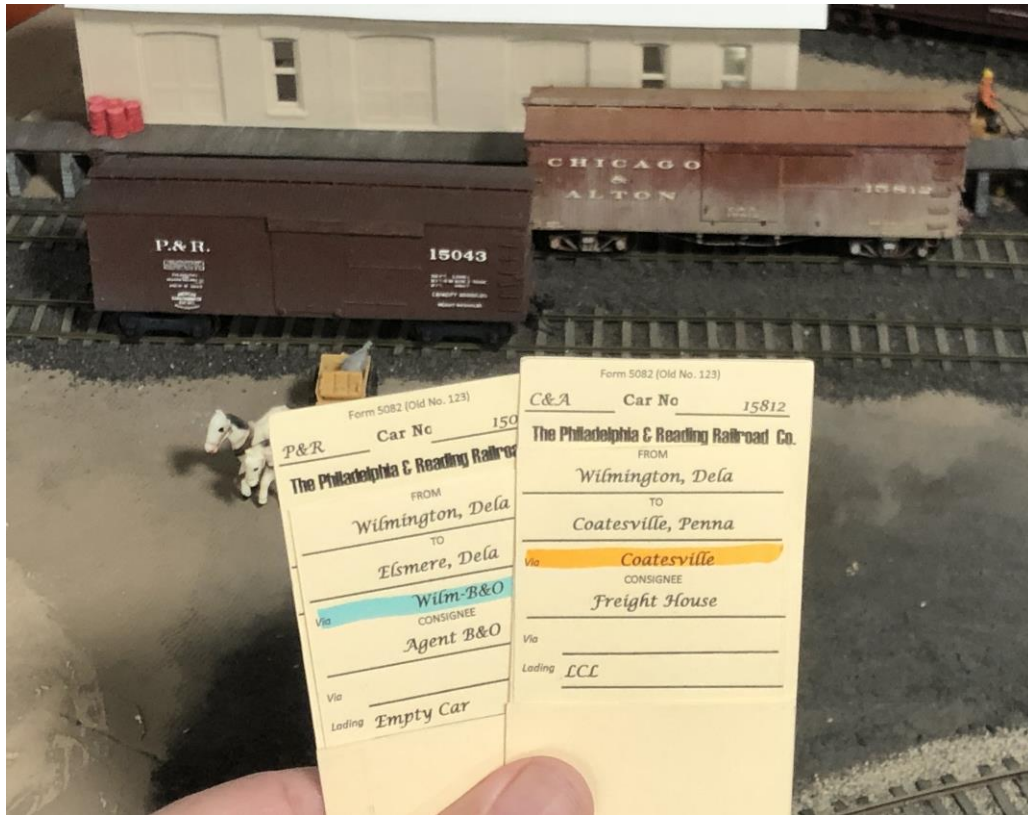
Don't have to turn all the waybills, can leave some on inbound move to represent cars loading or unloading
Also pull Spot Tags

Pull the waybills whose return doesn't make sense
Ex: System car empty returned offline

Apply agent hold and cleaning waybills

Cars released empty at industry may be candidates to reload at local industries

Empty cars may get a cleaning waybill (if they were loaded with something that would leave debris in the car) or an agent hold if they don't need to be cleaned
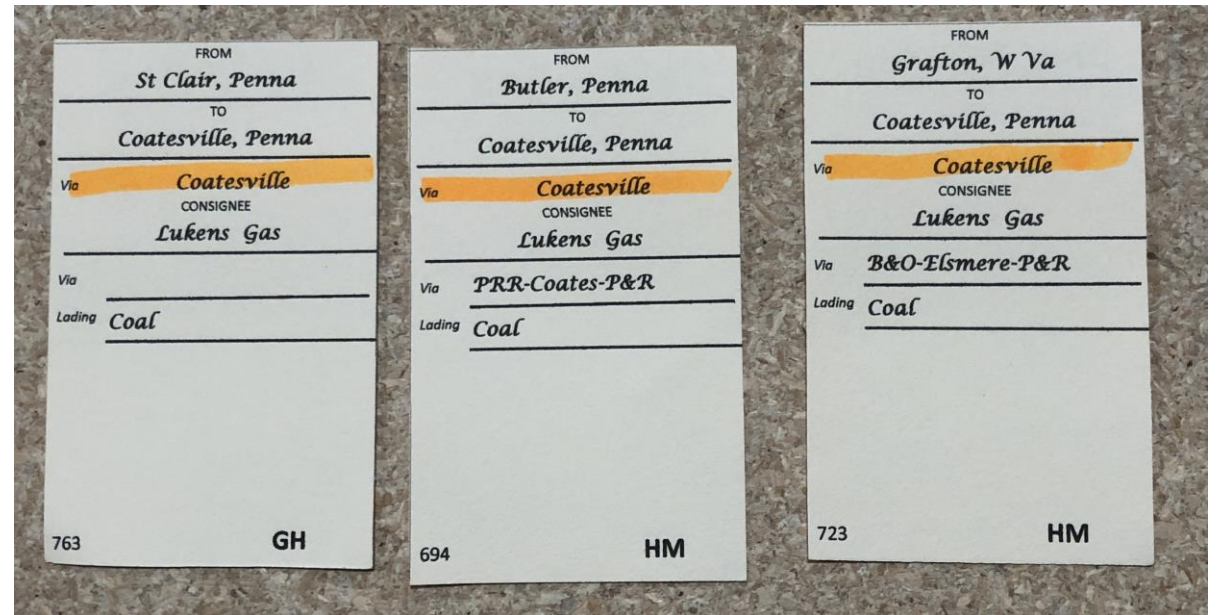
File waybills by station and industry

Select waybills for next session

Select waybills by switching area

		RDG					B&O			
		XM	GB/FM	GH/HM	RS/V	S/T	XM	GB/FM	GH/HM	RS/V
Staging										
Total										
Station										
Wilm-MD	6 to 8									
Wilm-H&H	6 to 8									
Wilm-DRE	6 to 8									
Wilm-6th	2 to 4									
CVL-Worth	3 to 6									
CVL Lukens	4 to 8									
CVL Other	2 to 4									
BB-South	4 to 6									
BB-North	3 to 5									
Trap Rock	2 to 6									
Montchanin	2 to 4									
Mortonville	0 to 3									
Suplee	0 to 3									
Elverson	1 to 4									
Joanna	0 to 2									
Kentmere	6 to 8									

After selection sort by interchange or staging yard

Reading   Coates-PRR   Elsmere-B&O

FROM St Clair, Penna TO Coatesville, Penna Via Coatesville CONSIGNEE Lukens Gas Via Lading Coal 763 GH

FROM Butler, Penna TO Coatesville, Penna Via Coatesville CONSIGNEE Lukens Gas Via PRR-Coates-P&R Lading Coal 694 HM

FROM Grafton, W Va TO Coatesville, Penna Via Coatesville CONSIGNEE Lukens Gas Via B&O-Elsmere-P&R Lading Coal 723 HM
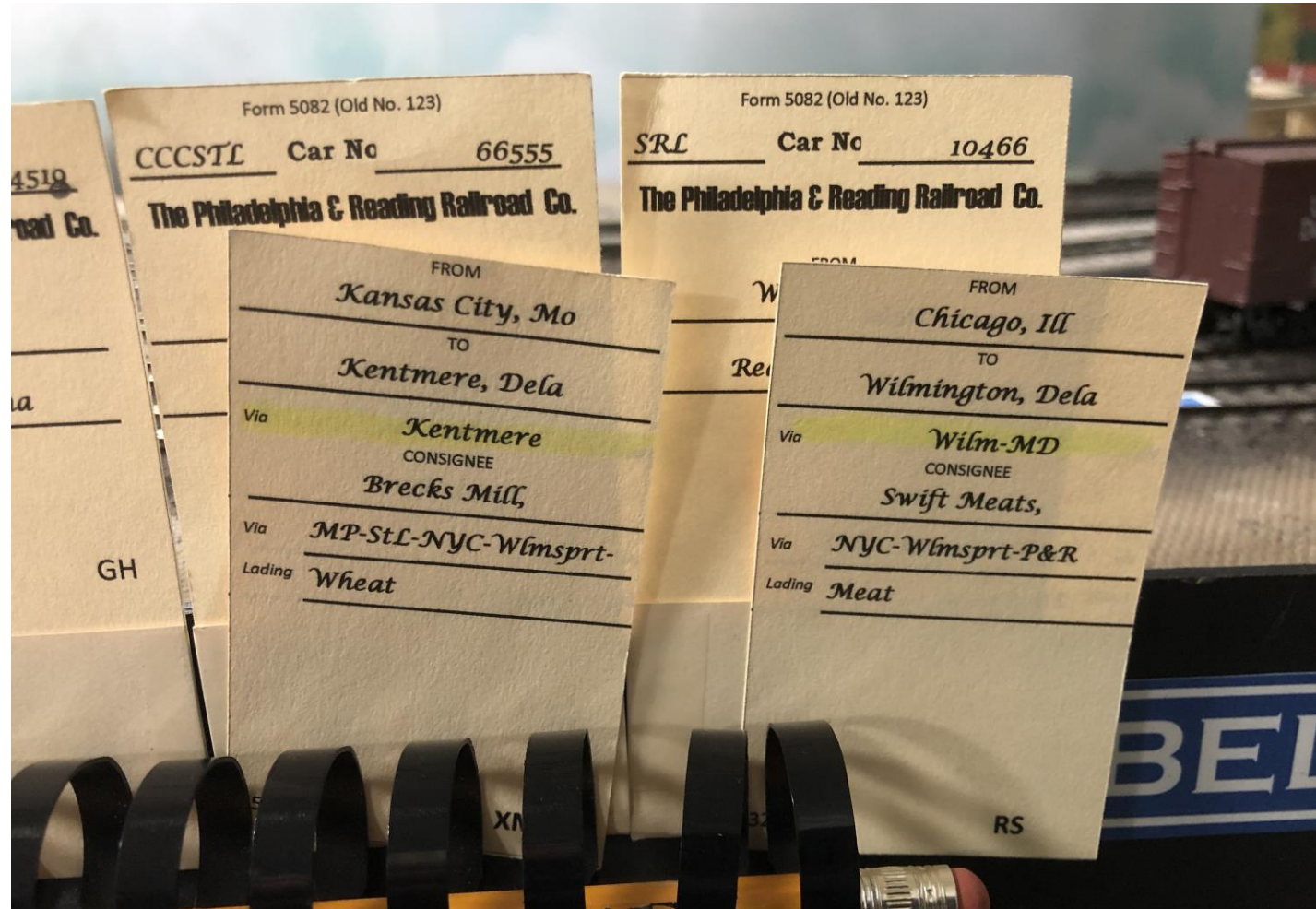
Apply waybills

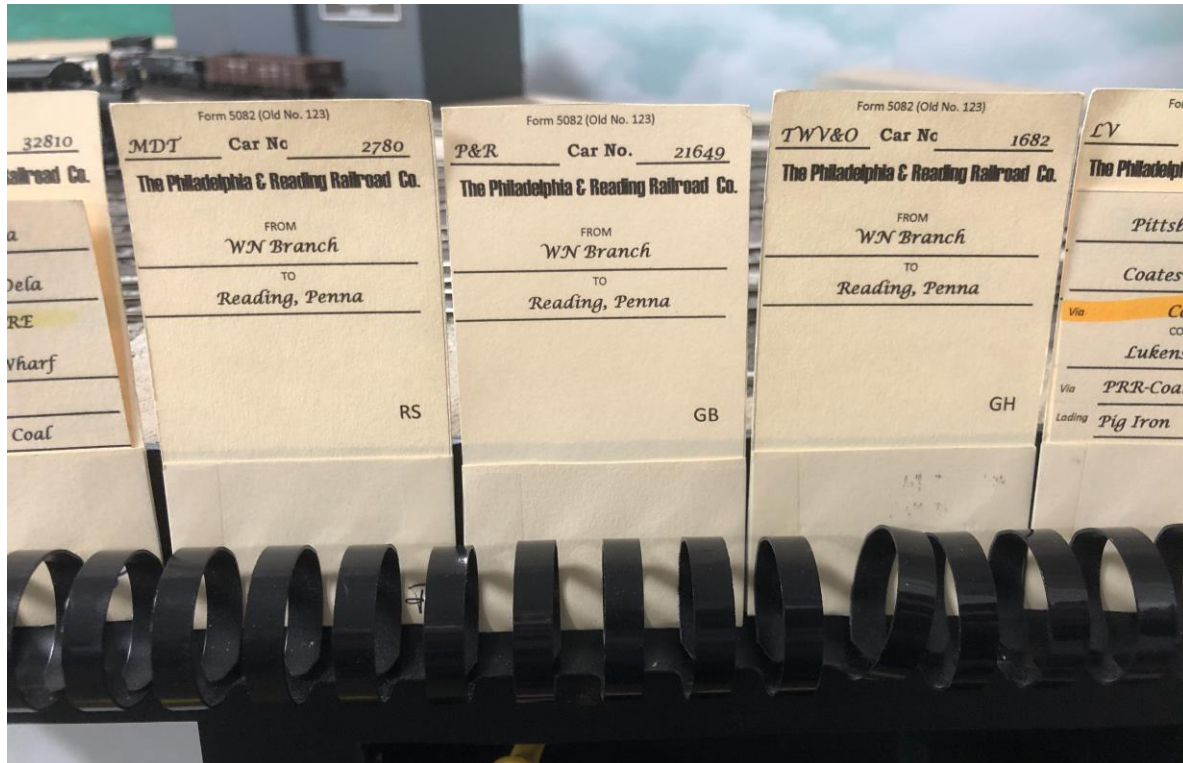Work each interchange or staging yard, preference to loaded moves.

Select appropriate car type and car consistent with car service rules to whatever degree you follow them

Left over empty car orders apply to empties released from industry or in yards.
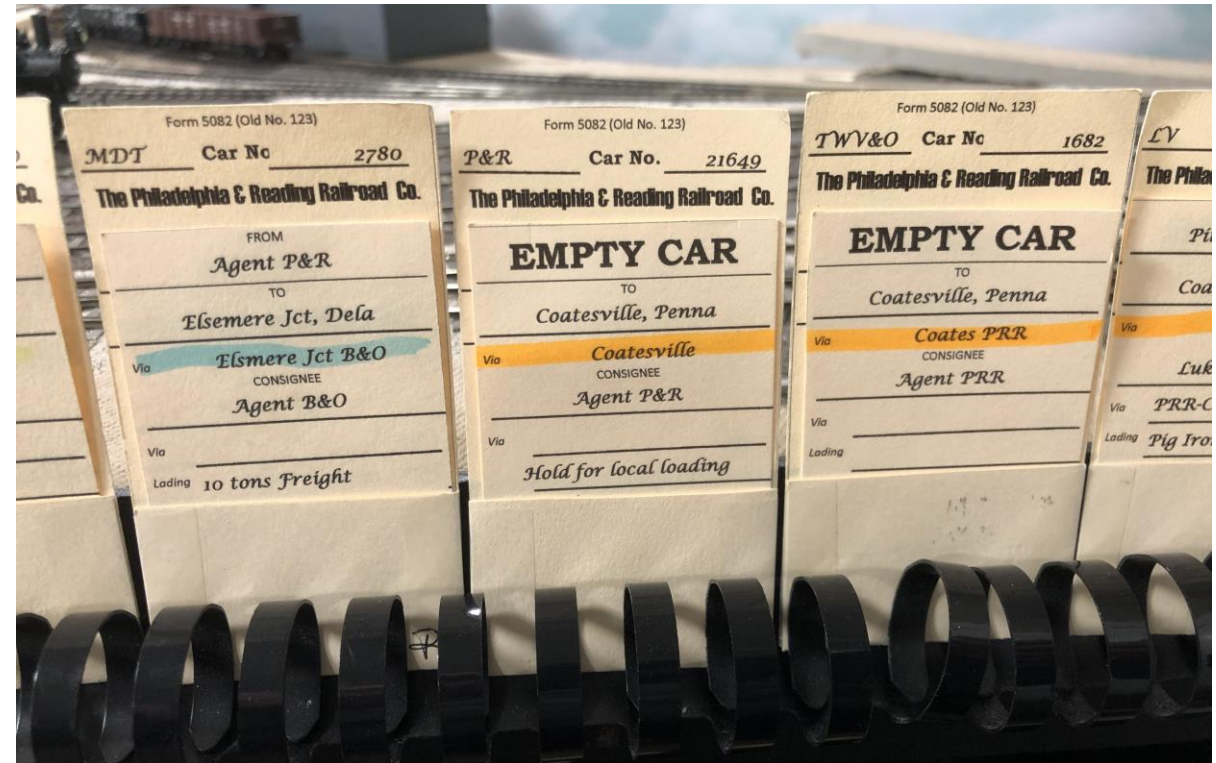
Apply empty and overhead waybills

Three cars I that didn't have loads or car orders applied

MDT-Overhead, P&R-Empty agent hold, TWVO-Empty return

Apply Spot tags

Spot tags go on cars in yards for industries served by the yard's switchers which will be spotted that session.

Spot tags can go on cars in inbound trains, but depending on when they are classified, the industry may have to wait or be switched twice.
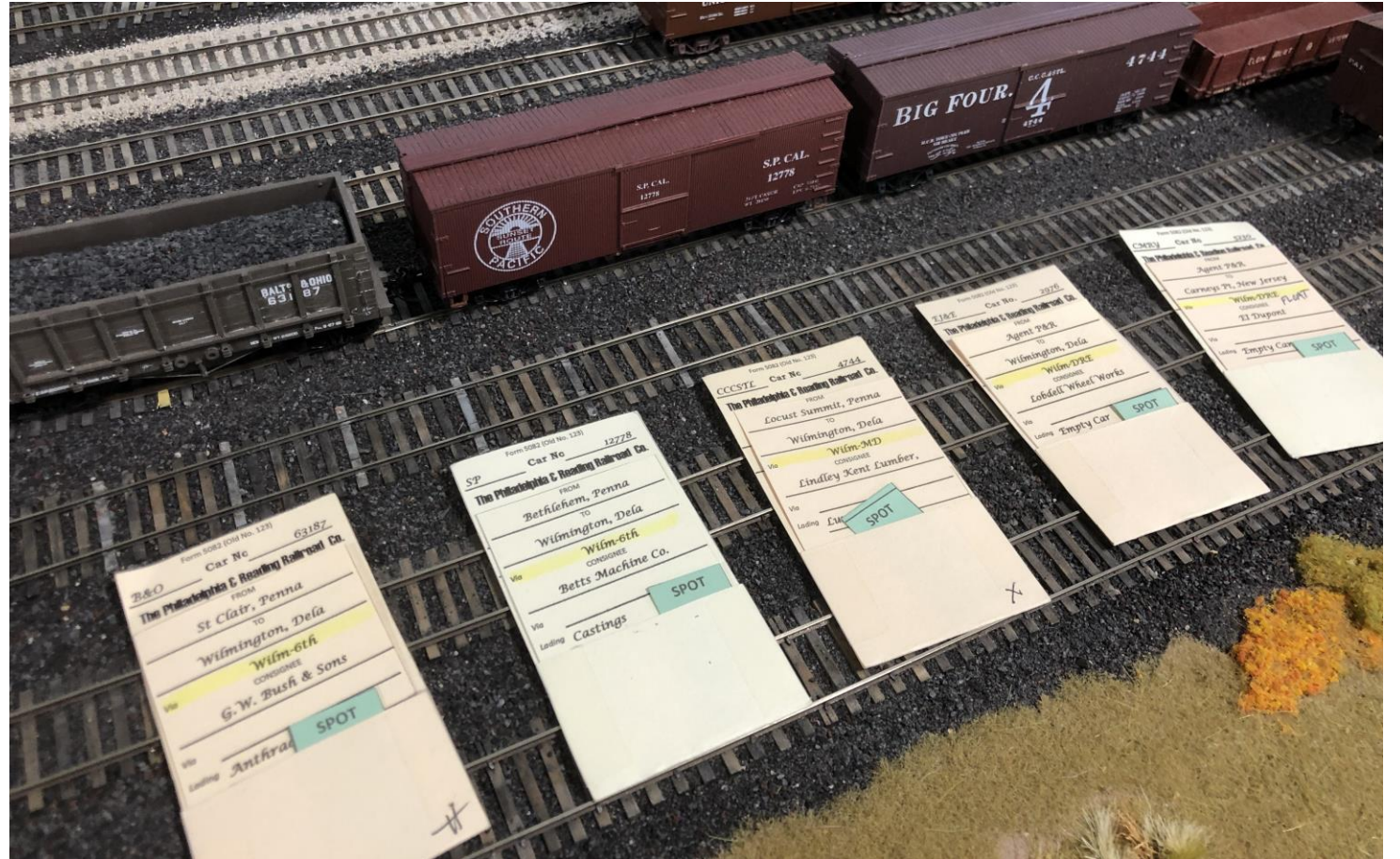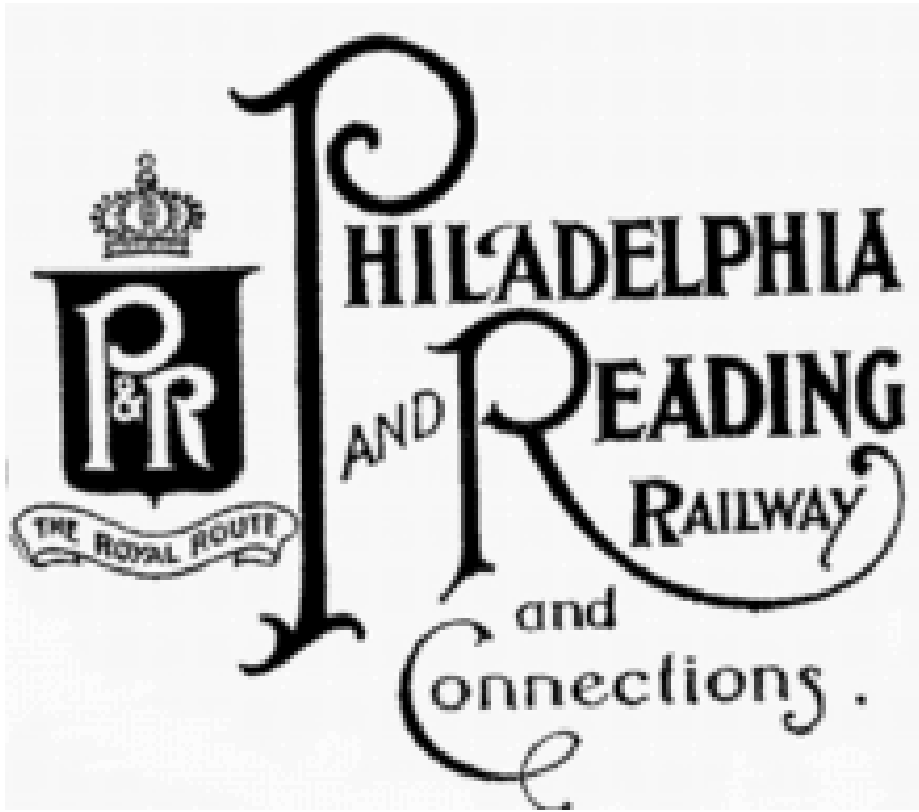
HOW LONG DOES THIS TAKE?

Timed how long it took to restage after last op session (223 cars on layout)

1.	Pull waybills in staging /interchange - 73 cars	4 min
2.	Turn/pull waybills at industry -59 of 71 cars*	28 min
3.	File waybills	8 min
4.	Select waybills – 42 new bills	17 min
5.	Apply waybills*	36 min
6.	Spot tags – 35 cars	5 min
	Total	1 hr 38 min

* Includes time to change loads in open top cars (about 45% of cars)