



IANA

INTERMODAL ASSOCIATION
OF NORTH AMERICA

Solving Intermodal Rail Visibility Challenges

Wednesday, October 30, 2024
2:00 PM EST

Agenda

- 1 Introduction
- 2 Today's Presentations
- 3 Q&A

Webinar Format

- Audience will be muted
- Please feel free to submit questions throughout the presentation
- Submit questions by clicking the Q&A icon at the bottom of your screen
- This webinar will be recorded and will be available on intermodal.org for on-demand viewing.



TRANSMETRIQ
A **RAILINC** BRAND

INTERMODAL RAIL VISIBILITY

How it works & best practices

October 30, 2024



TransmetriQ – A Railinc Brand is the only comprehensive, single-source view of the North American freight rail network. **Powered by Railinc**, the industry's trusted data steward, TransmetriQ has direct data integration to all six Class I Railroads and 600+ short lines.

- Complete North American rail network view
- Insights informed by decades of data



TRANSMETRIQ
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ABOUT THE INSTRUCTOR



Andy Adams
Sr. Solutions Engineer

● **19+** years at Railinc, the rail industry's centralized data steward

○ Expert in rail event data, operations, tracing and reporting

● Day-to-day role includes problem solving for shippers, 3PLs, ports and other customers

SMARTER RAIL SHIPPING



TRANSMETRIQ
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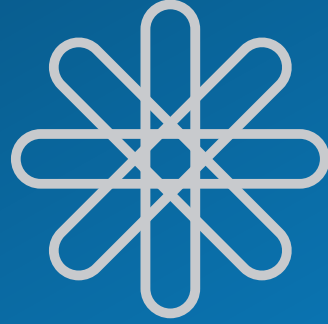


- ▶ **SHIPMENT MANAGEMENT & VISIBILITY:**
Single-source visibility across 600+ railroads
- ▶ **MAINTENANCE & REPAIR OPTIMIZATION:**
Get more out of your railcar fleet
- ▶ **FLEET REPORTING & ANALYTICS:**
Powerful movement, repair, and lease insights

AGENDA



- ▶ Common terminology
- ▶ How intermodal rail event reporting works
- ▶ Critical KPIs
- ▶ Rail tracing FAQs



INTERMODAL TERMINOLOGY

Quick Review

COMMON INTERMODAL TERMS



ISO (International Standards Organization) – an acronym for the 20' and 40' containers that move internationally.

IPI – Inland Point Intermodal. Refers to international containers moving inland from ports.

Domestic – Refers to the 53' containers that only move within North America.



COMMON INTERMODAL TERMS



Last Free Day – The amount of time, usually 48 hours, that an intermodal ramp will hold the container for free once the customer has been notified it's ready to be picked up.

Detention – The charges incurred after the last free date and time have passed. Usually calculated daily.



COMMON INTERMODAL TERMS: RAIL RAMP



- ▶ All of the railroads that carry intermodal have intermodal facilities that are referred to as “ramps” or “terminals”. The term “ramp” dates back to when intermodal shipments were trailers that loaded onto flat cars by ramp up to the car.
- ▶ Ramps are most often stand-alone facilities close to interstate highways. They can also be located next to or be part of a regular yard.

The typical facility will have:

- entrance and exit gates
- arrival/departure yards for trains
- loading and unloading tracks
- lift devices to load/unload units to/from flats
- storage tracks for empty cars
- storage for containers, trailers and chassis
- maintenance areas



COMMON INTERMODAL TERMS: INTERMODAL LANES



- ▶ The railroads schedule and measure their intermodal trains in origin ramp to destination ramp lanes.
- ▶ Some larger metropolitan areas have more than one ramp and lane available.
- ▶ When customers schedule shipments, they need to be aware of the facility, service level and lanes that fit where they're trying to ship.

Examples of Lanes:

UP – Global 2 (Chicago) to Los Angeles

BNSF - Los Angeles/Long Beach to Chicago

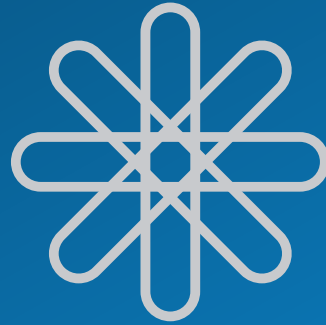
BNSF - Seattle to Minneapolis

CSX - Jacksonville to Memphis

NS - NY/NJ (Elizabeth, NJ) to Chicago

CN – Montreal to Vancouver





INTERMODAL RAIL VISIBILITY

How event-based visibility works and what events intermodal shippers might see

TWO MAJOR TYPES OF RAIL INTERMODAL MOVES



Import/Export Intermodal Move Within N.A.



Domestic Intermodal Moves



EVENT REPORTING: CONTAINERS ON RAIL (AEI)



- ▶ Containers and trailers are loaded on the flat/well car. Containers and trailers do not have AEI tags.
- ▶ The railroad associates the equipment to the flat car in their system – critical!
- ▶ As the flat/well car passes the AEI scanner, the AEI tag on the flat/well car is read.
- ▶ The railroad then reports the events on both the flat/well car and the container or trailer individually.





GPS

- ▶ Point in space
 - ▶ When moving or inside a defined-geo fence, provides location advantages
 - ▶ When not moving, there is no visibility or context to what's happening

AEI/CLM

- ▶ Event reporting
 - ▶ Immediately history (event has happened some period ago)
 - ▶ Advantage of knowing which event happened and whether the container has been loaded, unloaded or notified

The leading providers are currently melding GPS feeds with Event/CLM information to get a complete and accurate picture of what's happening with rail shipments.

MAJOR* EVENTS YOU'LL SEE



Beginning of Trip

Import

- ICHD/Interchange (if from Port railroad)
- RAMP (load on train)
- First Departure from Origin

Export or Domestic

- ICHD/Interchange (from motor carrier)
- Ingate
- RAMP (load in train)
- First Departure from Origin

Middle of Trip

- Departure in Transit
- Passing Events

Steel Wheel Interchange

- Interchange Delivered
- Interchange Received

Rubber Tire Interchange

- Arrive at Final
- DRMP and Notify
- Outgate and Interchange
- Interchange and Ingate
- RAMP (load on train)
- First Departure

End of Trip

Export

- Arrival at Final Destination
- DRMP ("deramp", removal from train)

Import or Domestic

- Arrival at Final Destination
- DRMP (removal from train/"grounding")
- Notification (sent as a constructive placement or NOTP)
- Outgate
- Interchange to Motor Carrier

**but not all*

HOW MANY EVENTS WILL I SEE?



The number of events received on a container depend on the origin and destination, length of the haul and which road(s) moves the container.

- ▶ West coast > inland trips (and vice versa): Between 80 and 130 different events reported from the start to the end of the trip
- ▶ East coast > inland trips (and vice versa): As few as 10 and as many as 50 events reported
- ▶ The east/west difference is largely due to the length of the haul with the distance travelled in the west being significantly longer. In the southeast in particular, a number of the trips are between the coastal ports and near inland ports. A good example of this is port Charleston, SC to the inland port in Greer, SC.

INTERCHANGE EVENTS



- ▶ **Steel wheel interchange:**
 - Railroads exchanging have collocated or connecting tracks
 - Railroads exchange the container well car with the container staying attached
 - ICHD Event

- ▶ **Rubber tire interchange:**
 - Railroad unloads container to a truck
 - Truck drays to new railroad
 - New railroad reloads onto new train



CRITICAL CONTEXT EVENTS: BEGINNING OF TRIP



- ▶ **Ingate:** Once the container arrives at the ramp and an interchange is received, you will see one-two 'ingate' events. These indicate that the container is ready to load on the train.
 - HHAR
 - HIGT
- ▶ **Ramp:** Following the ingate event, a ramp event indicates that the container(s) have been loaded onto the intermodal well car.
 - RAMP (U)



CRITICAL CONTEXT EVENTS: END OF TRIP



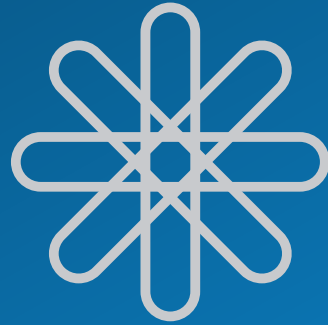
- ▶ **Arrival at Final:** Once the train arrives at the port or the destination ramp, the railroad will often report an arrival at destination event. For intermodal trips, this always represents the true final rail destination and not just the closest serving yard.
 - ARRI
- ▶ **Deramp:** Once the train arrives, cars are placed and the container/trailer will be unloaded. This is also referred to as “grounding” the container.
 - DRMP

CRITICAL CONTEXT EVENTS: END OF TRIP



- ▶ **Notification:** Once the container is grounded, the roads will issue a notification that the container is ready for pick up.
 - PCON
 - NOTP
- ▶ **Outgate:** Many railroads will report a departure when the container leaves the gate.
 - HADR
 - HOGT





KPIS

Solving challenges with reporting





- ▶ Knowing when your containers are dwelling in transit for long periods of time is critical information for knowing which ones may have delayed delivery times. We typically set up views that will show containers with in-transit events that have dwelled for 48+ hours:

Dashboards > SAMPLE INSIGHTS > IN TRANSIT - NO MVMT 48 HOURS

Detail ViewMap View

EditScheduleDownload

Keyword Search

Displaying 206 Rows

Reset Filters

Equipment ID	Location ABRT ↑	Location State	Event Time	Event Time Zone	Event Description	Load/Empty
TRHU100404	BARSTOW	CA	2023-07-04 04:51	PT	ARRIVAL INTRANSIT	E
FCIU623860	BARSTOW	CA	2023-07-04 04:51	PT	ARRIVAL INTRANSIT	L
TCLU417103	CHAMPAIGN	IL	2023-07-04 07:19	CT	ARRIVAL INTRANSIT	E
APZU479406	CHAMPAIGN	IL	2023-07-04 07:19	CT	ARRIVAL INTRANSIT	E
TCNU345072	CHAMPAIGN	IL	2023-07-04 07:19	CT	ARRIVAL INTRANSIT	E

KPI: DETENTION



- ▶ One of the insights that intermodal shippers need most are containers that have been grounded and notified but not picked up in 48+ plus hours. The typical last Free Day at an intermodal ramp is typically 48 hours. This insight will allow you to see containers that you may owe detention on:

Dashboards > SAMPLE INSIGHTS > NOTIFIED NO OUTGATE 48 HRS

Detail ViewMap View

EditScheduleDownloadView

Keyword Search

Search Equipment Data

Displaying 727 Rows

Reset Filters

Equipment ID	Location ABRT	Location State	Event Time	Event Time Zone	Event Description	Load/Empty
DRYU956541	SANTERRAM	NM	2023-07-04 15:58	MT	PLACEMENT-CONSTRUCTIVE	L
SEKU567425	DENVER	CO	2023-07-04 15:57	MT	PLACEMENT-CONSTRUCTIVE	L
TLLU433568	OAKLAND	CA	2023-07-04 15:53	PT	PLACEMENT-CONSTRUCTIVE	L
TCNU481359	OAKLAND	CA	2023-07-04 15:53	PT	PLACEMENT-CONSTRUCTIVE	L
NYKU421944	DENVER	CO	2023-07-04 15:50	MT	PLACEMENT-CONSTRUCTIVE	L
UETU554379	SANTERRAM	NM	2023-07-04 15:44	MT	PLACEMENT-CONSTRUCTIVE	L

KPI: ETA



- The Arrival at Final signifies that the container has arrived at the final destination ramp but does not mean that the container will immediately be grounded. It could be some hours or even days. Intermodal ETAs are often measured to the Arrival at Final event.

Dashboards > SAMPLE INSIGHTS > ETA NEXT 24 HOURS

Detail ViewMap View

EditScheduleDownload

Keyword Search

Displaying 1,660 Rows

Reset Filters

Equipment ID	Location ABRT	Location State	Event Time	ETA Time	Destination City ABRT	Destination State
UMXU934163	MAZONIA	IL	2023-07-06 15:12	2023-07-06 21:58	GLO4	IL
UMXU932807	BALKNOB	AR	2023-07-06 15:12	2023-07-07 14:16	MARION	AR
UMXU932665	BALKNOB	AR	2023-07-06 15:12	2023-07-07 08:08	MARION	AR
UMXU932638	MAZONIA	IL	2023-07-06 15:12	2023-07-06 21:58	GLO4	IL
UMXU931546	MAZONIA	IL	2023-07-06 15:12	2023-07-06 21:58	GLO4	IL

KPI: ARRIVAL AT FINAL



- The Arrival at Final signifies that the container has arrived at the final destination ramp but does not mean that the container will immediately be grounded. It could be some hours or even days. We typically build a view to show these containers:

Dashboards > SAMPLE INSIGHTS > Arrived Not Unloa...

Detail ViewMap View

Keyword Search

Displaying 901 Rows

Reset Filters

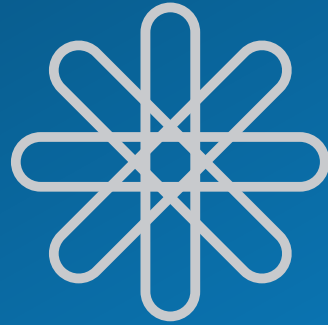
Edit

Schedule

Download

View

Equipment ID	Location ABRT	Location State	Event Time	Event Description
CMAU339459	NORINTERN	VA	2024-10-20 03:17	ARRIVAL AT FINAL DESTINATION
ECMU495221	APPPK	KY	2024-10-20 00:51	ARRIVAL AT FINAL DESTINATION
UETU680461	NORINTERN	VA	2024-10-19 22:30	ARRIVAL AT FINAL DESTINATION
TCNU536937	NORINTERN	VA	2024-10-19 22:30	ARRIVAL AT FINAL DESTINATION
TCNU300703	NORINTERN	VA	2024-10-19 22:30	ARRIVAL AT FINAL DESTINATION



FAQS

Last Free Day, Pickup Numbers, and Rail ETAs

RAIL ETA AND ETG: HOW IT WORKS



- ▶ **Estimated Time of Arrival (ETA)** – normally generated by the railroads via an industry application indicating an estimate of when the container will arrive.
 - You may receive one to many ETAs as the container moves to destination. When the ETA is not provided by the railroad, Railinc uses historical algorithms to fill in that information.
 - If Railinc has not seen an ETA within 3 hours of the first movement event of a trip, it will generate a Predictive ETA (PETA) based on the last 90 days of trip history between the waybill origin and destination. There can be one to many ETI/ETA updates per trip depending on trip circumstances and railroad operations.
- ▶ **Estimated Time of Grounding (ETG)** – is provided directly by the railroad and is the estimate when the container will be removed from the train. You may receive one to many updates in the course of the trip.

FREQUENTLY REQUESTED DATA



- ▶ Last free day/Detention and Pickup Numbers are two highly requested data elements that are not included in standard rail tracing.
- ▶ Security is strictly enforced around the pickup number to prevent theft of the container from the facility.

This data is available by sending an LOA to the respective Class I for EDI 322 or API access.





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The background features a stylized world map in light blue. Overlaid on the map is a grid of small white dots, some of which are larger and more prominent, creating a digital or data-like effect. A large, glowing yellow sphere is positioned on the right side of the image, partially overlapping the map and the text.

Q & A



ISO (International Standards Organization) – an acronym for the 20' and 40' containers that move internationally.

IPI – Inland Point Intermodal. Refers to international containers moving inland from ports.

Domestic – Refers to the 53' containers that only move within North America.

CY – Container Yard. Refers to an off-dock/off-ramp yard where containers can be stored to free up real estate in the intermodal facility.

On Dock/Off Dock Rail – Refers to if the containers are loaded in the port or drayed to a separate off-dock facility.

Container/Box/Can – all used interchangeably to refer to a container.

Grounding – another term for the DRMP (dee-ramp) or removal of the container from the train.

Reefer – a container with a refrigeration device



Dry Van – a container with no special refrigeration or devices attached. It's just a box.

High Cube – a container that has larger height than a standard container. We do not receive an indication of high cube versus regular height containers.

Dray/Drayage – refers to the truck/motor carrier that performs the first mile/last mile services of getting the container to or from the end customer dock

First Mile/Last Mile – delivery to and from the end customer dock.

Door to Door Providers – Most of the Class I's offer "door to door" services where they will arrange the pickup, transit, and delivery of the customer's container(s). Examples include Thoroughbred Direct, Streamline, BNSF Logistics.

Last Free Day – The amount of time, usually 48 hours, that an intermodal ramp will hold the container for free once the customer has been notified it's ready to be picked up.

Detention – The charges incurred after the last free date and time have passed. Usually calculated daily.



ETA (estimated time of arrival)

- ▶ Dynamic throughout the trip
- ▶ Expected arrival at final rail destination (ramp/port)

ETG (estimated time of grounding)

- ▶ Not dynamic: Provided at start of trip and does not change
- ▶ Estimated time of unload



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Thank you for joining us!