



Presenter:

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Today's Webinar:

Beyond Data Capture: Solving the Real Traceability Problem - Bad Data

March 11, 2026



Thanks For Attending

A few guidelines for today

- Everyone who registered will get the recording
- There will be time at the end for questions, which you can submit by typing in the question pane
- There is a brief survey that follows the webinar
 - Your feedback helps us make future webinars even better
 - If you want to have a discussion with us, you can request it on the survey



ReposiTrak and the Traceability Network

Connecting the supply chain to deliver real traceability

- More than **two decades of experience** tracking product shipments
- Over **three years of in-depth work on FSMA 204 compliance** with suppliers, wholesalers/distributors and retailers
- Nearly **2 million lot code level records created** and saved
- First ReposiTrak Traceability Network (RTN) **retailer has achieved end-to-end traceability success** without scanning cases anywhere



Quick FSMA 204 Review

FDA FOOD SAFETY
MODERNIZATION ACT





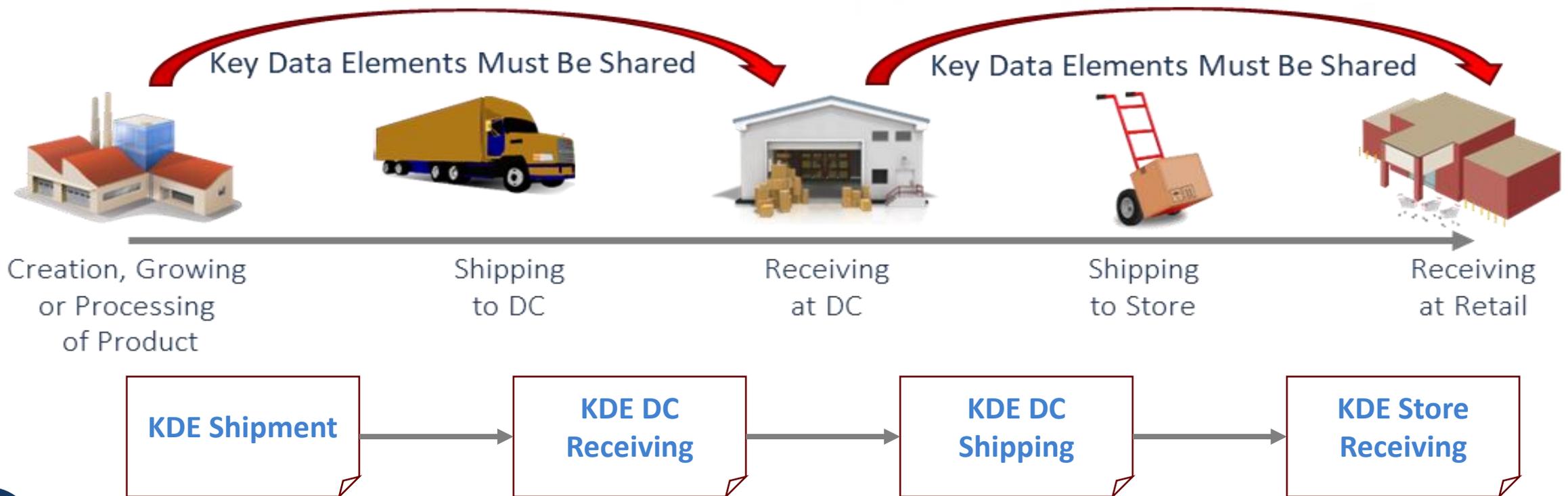
Every Critical Tracking Event (CTE) has a set of Key Data Elements (KDEs) that must be collected and saved as an easily retrievable record.

The CTEs that impact wholesalers/distributors and retailers are Shipping, Receiving, and in some cases Transformation.



Which traceability records are required at each step?

- ...From the supplier when product is shipped – a **KDE Shipment Record**
- ...At the DC/warehouse when product is received – a **KDE DC Receiving Record**
- ...From the DC/warehouse when product is shipped – a **KDE DC Shipping Record**
- ...At stores when product is received – a **KDE Store Receiving Record**



Receiving and Shipping KDE Records

These are the FDA required data elements

Product
data that
stays the
same

1. The traceability lot code for the food
2. The product description for the food
3. The location description for the traceability lot code source, or the traceability lot code source reference

Shipment
data that
changes as
the product
moves

4. The location description for where the food was received
5. The location description for the immediate previous source (other than a transporter) for the food
6. The reference document type and reference document number
7. The quantity and unit of measure of the food (e.g. 6 cases, 25 reusable plastic containers, 100 tanks, 200 pounds)
8. The date the food was received/shipped



Retailers are Looking for Much More Data

Data Elements
PO Number
SSCC-18
Walmart Item Number
Bill of Lading
Ship Date
Ship-From Location, GLN, Address, Phone
Ship-To Location, GLN, Address
GTIN
Product Description
Lot/Batch Number
Traceability Lot Code Source (or) Traceability Lot Code Source Reference (GLN, FFRN, USDA Est Number)
Country of Origin
Pallet Quantity
Case Quantity
Net Weight, Pounds (variable measure trade item)
Net Weight, Kilograms (variable weight trade item)
Gross Weight, Pounds
Gross Weight, Kilograms
KDEs for Upstream CTEs (e.g., farm/harvest, cooling)*
All available date codes listed below
Production date
Harvest or Pack date
Best before date
Sell by date
Expiration date

If you are required to share more data elements, does the chance for errors increase?

If you need to share different data with different customers, does the chance for errors increase?

How will customers react if you share bad data?

Fines?

Rejected shipments?





The FDA is No Longer Driving the Timing

- Over **70 retail and distribution companies** **have announced their requirements** or plans to do traceability, many with deadlines well in advance of the FDA deadline.
- Suppliers, you may already have customers telling you to get started...**this will soon turn into real pressure**
- You will need an easy way to meet their requirements; **what data elements** they want and **how they want it** will vary



How Dirty Data Can Wreck Your Traceability Program



Poll Question



Why Aren't More People Talking About Data Errors?

Let's ask ChatGPT about data errors and EDI...

What's on the agenda today?

If I send my traceability data to my retailer customers via an EDI advance shipping notice (ASN 856), will it catch the errors in my data?



Why Aren't More People Talking About Data Errors?

What ChatGPT says about data errors and EDI...

If I send my traceability data to my retailer customers via an EDI advance shipping notice (ASN 856), will it catch the errors in my data?

Short answer: **No. An EDI 856 ASN will not reliably catch errors in your traceability data.** It only ensures the message format is valid, not that the data inside it is correct.

This is a critical distinction that causes many traceability programs to fail.



How is what ReposiTrak Does Different from EDI?

When data accuracy counts

- ReposiTrak data sharing is **not a commercial service**, like with an EDI company
- Simply “moving the data” is not something we sell
- Data **sharing in ReposiTrak is a means to an end**
- Data must be **transmitted, shared and tracked** because the data is used for a business outcome in ReposiTrak
- In ReposiTrak’s business, **data inaccuracy has a major financial consequence**
- That’s why, over 20+ years, we have created hundreds of AI-based rules to find the data errors in the records shared via ReposiTrak



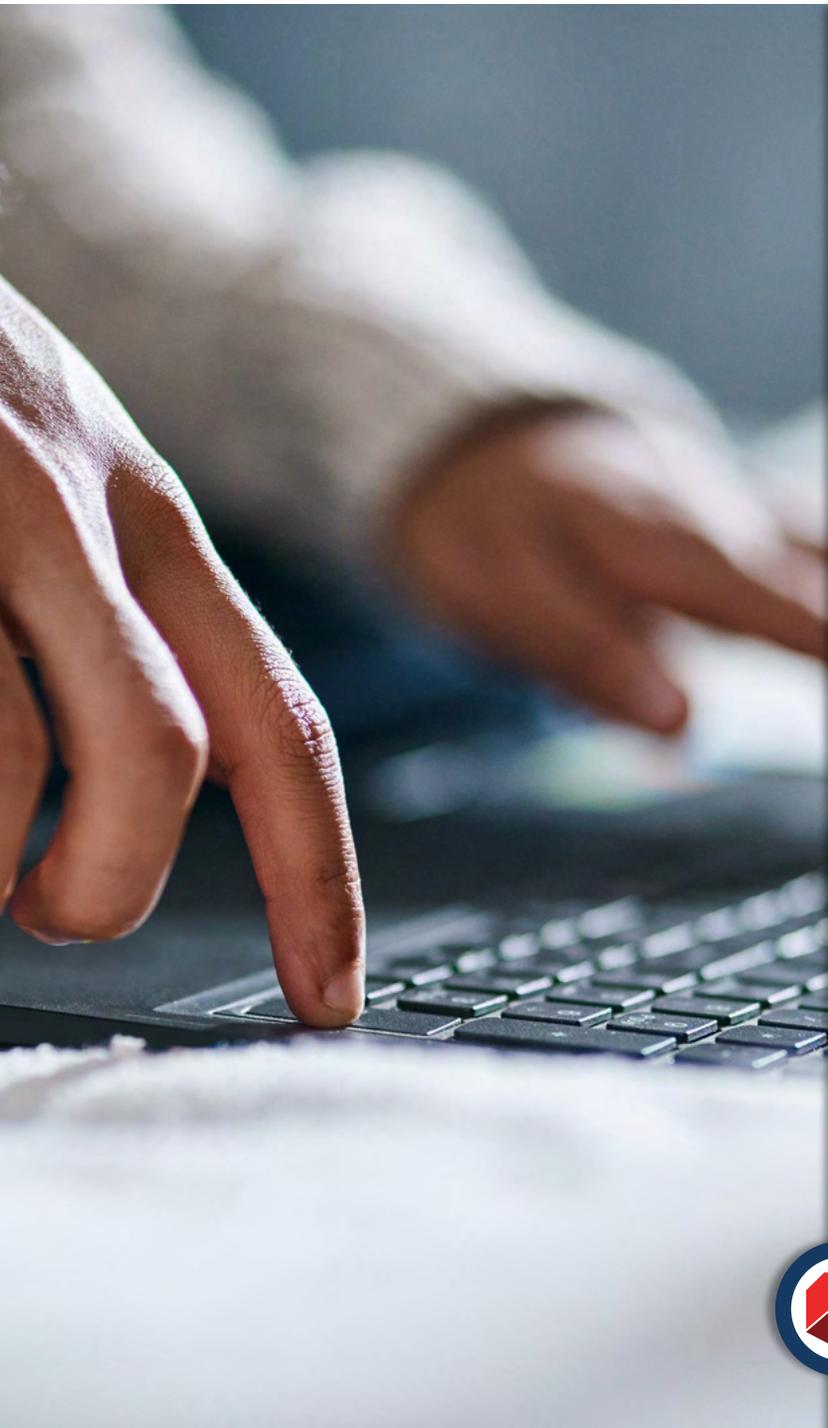
The REAL Data Error Rate in Traceability

Errors Before
Detection/Correction



- Based on experience with millions of records and hundreds of suppliers, we know the REAL Data **error rate is close to 40% of all records**
- At that error rate, **traceability is totally compromised**
- When suppliers **push dirty data to wholesalers and retailers**, it **propagates throughout their systems** and on to stores
- Once the **dirty data is downstream**, it's **"garbage in/garbage" out for all other systems**
- ReposiTrak uses **expert systems AI to DETECT and CORRECT** the errors to **prevent the "garbage out"**





Manual Corrections Don't Work at this Scale

- ReposiTrak sends **notifications to suppliers** when errors are found
- At the **scale of shipments and high percentage of errors**, it won't be possible to turn around all the corrected files before shipments arrive at the wholesale and retailer customer sites
- **Corrections must be automated** using AI technology



Example 1 Error Detected: Invalid Product ID

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

```

HL*4*3*I
LIN**UP*007500241414*IN*028431*LT*RH35125002
SN1**240*CA
PO4**6*PH
PID*F***[REDACTED]
DTM*036*20281217
HL*5*2*P
LIN**UA*007500212016
SN1**104*CA
MAN*GM*00000750020003213717
DTM*036*20281229
HL*6*5*I
LIN**UP*007500212016*IN*028399*LT*RH36325002
SN1**48*CA
PO4**6*PH
PID*F***[REDACTED]
DTM*036*20281229 |
HL*7*5*I
LIN**UP*007500244412*IN*129221*LT*F4677
SN1**56*CA
PO4**6*PH
PID*F***[REDACTED]
DTM*036*20281208
  
```

- See the highlighted area. A product number that does not exist in the sender's catalog was sent in the EDI 856.
- Because ReposiTrak stores the sender's product data:
 - ReposiTrak's expert system AI will search for possible product matches using the UPC and/or GTIN and/or product description in the sender's product catalog.



Example 1 Error Corrected: Product ID Matched/Added

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

Tracking ID: 79558
 From Location: [Redacted]
 To Location: [Redacted]

To add an item or a Traceability Lot Code (TLC) to this shipment, fill out the fields below. Select an existing item or add a new item or TLC using the "Item Name" and "Search and Add" fields. In the "Search and Add" field, you can search using the name of the item, TLC, UPC, etc. or type *** to see all existing TLCs.

Adding Product and its Traceability Lot Code to This Shipment

Product: [Redacted]

Search or Add: [Redacted]

Quantity Shipped: 240 Case - CA

Traceability Lot Code (TLC) Source: [Redacted]
 Remaining: 369

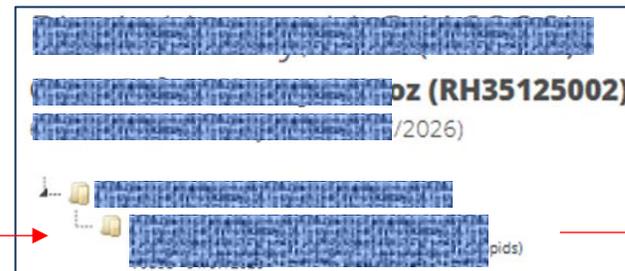
Reference Document Type: ASN
 Reference Document Number: 79558
 Purchase Order Number: 077424

- If found using expert systems AI, the Product ID sent in the file will be corrected, and the record will process and post.
- If not found, ReposiTrak will use expert systems AI and the basic product data sent to add the product in the sender's catalog. Then the record will process and post.
- Shipment files are visible on screen

Example 1: Error corrected and shipment posted

Shipments Sort By: Date Shipped: Newest to Oldest

Traceability Lot Code	Customer	Shipped QTY	Shipped From Facility
Shipped Item	Received To Facility	Received QTY	Tracking Id
			Date Shipped
RH35125002	[Redacted]	240 Case	[Redacted]
	[Redacted]	---	79558
			01/07/2026



[Redacted] (72918)

CTE: RECEIVING

Item: [Redacted]

Shipper: [Redacted]

Receiver: [Redacted]

Purchase Order Number: 077424

Tracking ID: 79558

Shipment Date: 01/07/2026

Shipped Quantity: 240 Case

Data received through Cleo AS2



Example 2 Error Detected: Invalid Product ID

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

Item portion of file:

```

HL*15*3*I
LIN*14*UK*10041364544912*UP*004136454491*VN*54491*LT*20261011
SN1**54*CA
PID*F*08***RV 12/14oz ████████████████████
HL*16*3*I
LIN*15*UK*10041364544967*UP*004136454496*VN*54496*LT*20261217
SN1**20*CA
PID*F*08***RV ████████████████████ 24/12oz PDQ
HL*17*3*I
LIN*2*UK*10041364081653*UP*004136408165*VN*8165*LT*20261112
SN1**5*CA
PID*F*08***S ████████████████████/12/4.5oz
HL*18*3*I
  
```

- See the **highlighted** area. A **product number that does not exist in their catalog** was sent.
- Because ReposiTrak stores the sender's product data:
 - ReposiTrak uses expert systems AI and the UPC and/or GTIN and/or product description to search for possible product matches in the sender's catalog.



Example 2 Error Corrected: Product ID Matched/Added

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

Tracking ID: 1211346
 From Location: 0051295980000 - [REDACTED]
 To Location: [REDACTED]

To add an Item or a Traceability Lot Code (TLC) to this shipment, fill out the fields below. Select an existing item or add a new item or TLC using the "Item Name" and "Search and Add" fields. In the "Search and Add" field, you can search using the name of the item, TLC, UPC, etc. or type *** to see all existing TLCs.

Adding Product and its Traceability Lot Code to This Shipment

Product: [REDACTED] (55-6)
 Search or Add: [REDACTED] 026
 Quantity Shipped: 20 Case - CA
 Traceability Lot Code (TLC) Source: [REDACTED] LA PORTE IN 46350
 Remaining: 341
 Reference Document Type: ASN
 Reference Document Number: 1211346
 Purchase Order Number: 81517

- If found using expert systems AI, the Product ID sent in the file will be corrected, and the record will process and post.
- If not found, ReposiTrak will use expert systems AI and reference the basic product data sent to add the product in the sender's catalog. Then the record will process and post.
- Shipment files are visible on screen

Example 1: Error corrected and shipment posted

Shipments Sort By: Date Shipped: Newest to Oldest

Traceability Lot Code	Customer	Shipped QTY	Shipped From Facility
Shipped Item	Received To Facility	Received QTY	Tracking Id
			Date Shipped
20261217	[REDACTED]	20 Case	[REDACTED]
		---	1211346
			01/19/2026

[REDACTED] (39768)
 [REDACTED] DQ (20261217)
 0051295980000 [REDACTED] 026

[REDACTED] (53529)

CTE: RECEIVING
 Item: [REDACTED]
 Shipper: [REDACTED]
 Receiver: [REDACTED]
 Purchase Order Number: 81517
 Tracking ID: 1211346
 Shipment Date: 01/19/2026
 Shipped Quantity: 20 Case

Data received through Cleo AS2



Example 3 Error Detected: Invalid Customer ID

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

Header portion of the file followed by item portion:

```

ST*856*8090001
BSN*00*0086347401*20251205*1832
HL*1**S
TD1*****G*17921.70*LB
TD5****M* [REDACTED]
REF*BM*0005392599
DTM*011*20251205
N1*RC*[REDACTED]*91*0000297747
N3*[REDACTED]
N4*[REDACTED]
N1*ST*[REDACTED]*9*0442762360000
N3*[REDACTED]
N4*[REDACTED]
N1*SU*[REDACTED]000407
N3*[REDACTED]
N4*[REDACTED]
N1*SF*[REDACTED]18990407
N3*[REDACTED]
N4*[REDACTED]
N1*RL*[REDACTED]
N3*[REDACTED]
N4*[REDACTED]
HL*2*1*O
PRF*964129***20251125
HL*3*2*I
LIN**UK*10075925401208*UI*07592540120*B8*2532935*LT*2532935
SN1**20*CA
PID*F****12/14.25 OZ, BGL PL 5 CT, DD
  
```

- See the highlighted area. A customer ID was sent that is invalid (not recorded as this sender's customer ID.)
- Because in the N1 segment, the sender also listed the customer's name and ship-to address name, (redacted here) ReposiTrak uses expert systems AI to identify what the ID should have been.



Example 3 Error Corrected: Customer ID Matched/Added

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

(39051)

Tracking ID: 0086347401

From Location: [Redacted]

To Location: [Redacted]

To add an item or a Traceability Lot Code (TLC) to this shipment, fill out the fields below. Select an existing item or add a new item or TLC using the "Item Name" and "Search and Add" fields. In the "Search and Add" field, you can search using the name of the item, TLC, UPC, etc. or type *** to see all existing TLCs.

Adding Product and its Traceability Lot Code to This Shipment

Product: [Redacted]

Search or Add: [Redacted]

Quantity Shipped: 20 Case - CA

Traceability Lot Code (TLC) Source: [Redacted]

Remaining: 341

Reference Document Type: ASN

Reference Document Number: 0086347401

- **If found**, the Customer ID sent in the file will be added as an additional Customer ID, and the record will process and post.
- **If not found**, ReposiTrak will use expert systems AI and add the Customer and reprocesses the file.
- Shipment files are visible onscreen.

Example 3: Error corrected and shipment posted

Shipments		Sort By:	Date Shipped: Newest to Oldest
Traceability Lot Code	Customer	Shipped QTY	Shipped From Facility
Shipped Item	Received To Facility	Received QTY	Tracking Id
			Date Shipped
2532935-2532935	[Redacted] Main Warehouse - Receiving	20 Case	[Redacted] 0086347401 12/05/2025

(39051)

12/14.25 OZ BGL PL 5 CT DD (2532935-2532935)

407 - [Redacted] 12/05/2025)

- 12/14.25 OZ BGL PL 5 CT DD (38941)
0086347401 - 12/05/2025
- [Redacted] (38941)
0086348592 - 12/08/2025
- [Redacted] (80088)
0086348591 - 12/08/2025
- [Redacted] (80088)
0086354435 - 12/09/2025

(38941)

CTE: RECEIVING

Item: 12/14.25 OZ BGL PL 5 CT DD

Shipper: [Redacted] (39051)

Receiver: [Redacted] (38941)

Tracking ID: 0086347401

Shipment Date: 12/05/2025

Shipped Quantity: 20 Case

Data received through Cleo AS2



Example 4 Error Detected: Missing Shipped Product

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

Item portion of file with the error:

```
HL*15*1*I
LIN**UK*10016300169269*UP*001630016926*VN*12830*LT*042566GH26R
SN1**30*CA
PID*F***[REDACTED]
HL*16*1*I
LIN**UK*10016300169252*UP*001630016925*VN**LT*043066GH26F
SN1**30*CA
PID*F***[REDACTED]
HL*17*1*I
LIN**UK*10016300330003*UP*001630033000*VN*13009*LT*050666GE26R
SN1**15*CA
PID*F***[REDACTED]
```

- See the highlighted area. There was no Product Number sent in the file for this product (between the VN indicators **).
- Because ReposiTrak stores the sender's product data, ReposiTrak uses expert systems AI and the UPC and/or GTIN and/or product description to locate the product in the sender's product catalog.



Example 4 Error Corrected: Product Identified

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

(40750)

Tracking ID: 00SH_1000157120
 From Location: 0040917320001
 To Location: 01 - Main Warehouse - Receiving

To add an Item or a Traceability Lot Code (TLC) to this shipment, fill out the fields below. Select an existing item or add a new item or TLC using the "Item Name" and "Search and Add" fields. In the "Search and Add" field, you can search using the name of the item, TLC, UPC, etc. or type *** to see all existing TLCs.

Adding Product and its Traceability Lot Code to This Shipment

Product: [Redacted]

Search or Add: [Redacted]

Quantity Shipped: 30 Case - CA

Traceability Lot Code (TLC) Source: [Redacted]

Remaining: 350

Reference Document Type: ASN

Reference Document Number: 00SH_1000157120

Purchase Order Number: 00SH_1000157120

- When found, the Product ID for the Product sent in the file will be added using expert systems AI and the record will process and post.
- Shipment files are visible on screen

Example 4: Error corrected and shipment posted

Shipments		Sort By:	Date Shipped: Newest to Oldest
Traceability Lot Code	Customer	Shipped QTY	Shipped From Facility
Shipped Item	Received To Facility	Received QTY	Tracking Id
			Date Shipped
043066GH26F	(38941) Main Warehouse - Receiving	30 Case	00SH_1000157120 01/22/2026

(40750)

(043066GH26F)

0040917320001 - (01/22/2026)

(38941)

00SH_1000157120 - 01/22/2026

(38941)

CTE-RECEIVING

Item: 2

Shipper: [Redacted]

Receiver: Animated Focus Inc. (38941)

Purchase Order Number: 00SH_1000157120

Tracking ID: 00SH_1000157120

Shipment Date: 01/22/2026

Shipped Quantity: 30 Case

Data received through Cleo AS2



Example 5 Error Detected: Missing TLC Source

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

Header portion of the file followed by item portion with error:

```

N1*ST*[REDACTED]*UL*0098263148603
N3*[REDACTED]
N4*[REDACTED]*USA
N1*SF*[REDACTED]*9*5011
N3*[REDACTED]
N4*[REDACTED]*USA
HL*2*1*O
PRF*232317300
TD1*PLT*3114
HL*3*2*P
MAN*GM*00000365140386322137
HL*4*3*I
LIN****UK*10053000000690*LT*0008982547*VN*130614
SN1**65*CA
PID*F****[REDACTED]
DTM*036*20260412
Missing the N1*MP
Missing the N3
Missing the N4
HL*5*2*P
MAN*GM*00000365140387963438
HL*6*5*I
LIN****UK*10053000000515*LT*0009005399*VN*130604
SN1**175*CA
PID*F****[REDACTED]
DTM*036*20260610
Missing the N1*MP
Missing the N3
Missing the N4

```

- See the highlighted area. There was no TLC Source sent in the file for this product
- The N1*MP, N3, and N4 fields are missing at the item level
- Because ReposiTrak stores the sender's location data, ReposiTrak uses expert systems AI to compare this to previous shipments of this product from this location to other customers to identify the TLC Source.

Example 5 Error Corrected: **TLC Source Added**

EDI 856 Error Detection & Correction Enabling ReposiTrak to Create KDE Records at Supplier Shipping CTE

(DFA) (21560)

Tracking ID: 0180033508

From Location: [Redacted]

To Location: [Redacted]

To add an Item or a Traceability Lot Code (TLC) to this shipment, fill out the fields below. Select an existing Item or add a new Item or TLC using the "Item Name" and "Search and Add" fields. In the "Search and Add" field, you can search using the name of the item, TLC, UPC, etc. or type *** to see all existing TLCs.

Adding Product and its Traceability Lot Code to This Shipment

Product: [Redacted]

Search or Add: [Redacted]

Quantity Shipped: 65 Case - CA

Traceability Lot Code (TLC) Source: [Redacted]

Remaining: 360

Reference Document Type: ASN

Reference Document Number: 0180033508

Purchase Order Number: 232317300

- When found using expert systems AI, the TLC Source for the Product sent in the file will be added and the record will process and post.
- Shipment files are visible on screen

Example 5: Error corrected and shipment posted

Shipments		Sort By:	Date Shipped: Newest to
Traceability Lot Code Shipped Item	Customer Received To Facility	Shipped QTY Received QTY	Shipped From Facility Tracking Id Date Shipped
0008982547	[Redacted]	65 Case	[Redacted] (21560) --- 0180033508 01/03/2026

[Redacted] (21560)

[Redacted] (0008982547)

[Redacted] (12/20/2025)

[Redacted]

CTE: RECEIVING

Item: [Redacted]

Shipper: [Redacted] (1560)

Receiver: [Redacted]

Purchase Order Number: 232317300

Tracking ID: 0180033508

Shipment Date: 01/03/2026

Shipped Quantity: 65 Case

Data received through Cleo AS2

Steps to Avoid Dirty Data

Suppliers

- **Don't trust EDI** to do this for you...**it doesn't work**
- **Send test files** before you send any data to customers
- **Ensure you have a robust process** that is repeatable and reliable
- **Find a technology partner** who can help



Steps to Avoid Dirty Data

Wholesalers/Retailers

- Communicate the bad data problem to your IT teams so they understand **the *garbage in-garbage out* problem**
- **Don't trust EDI** to do this for you...**it doesn't work**
- Deploy technology that validates the **accuracy of data**



Q&A



Thank You!

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