



# Inventory API Guide

**For Asynchronous Messages**

*Version 2024.4 | Revision 01*

TraceLink, Inc. ("TraceLink") owns all right, title to, and interest in TraceLink's methodologies, processes, Applications, Software Programs and/or the licensed TraceLink documentation. The documentation is informational in nature and does not constitute a warranty of TraceLink. The licensed use of the TraceLink documentation is solely in conjunction with the licensed use of applicable TraceLink Applications and/or Software Programs. Any Reproduction or modification of the TraceLink documentation is prohibited. This documentation is confidential and can only be used by an authorized customer.

TraceLink, Inc. Copyright 2009-2024. All rights reserved.

# Table of Contents

- Inventory API Guide** ..... 1
  - Copyright ..... 2
  - Table of Contents ..... 3
- Getting Started** ..... 6
  - Overview ..... 7
    - How Integration Works ..... 8
    - How To Use this Guide ..... 10
    - Error Messages ..... 20
- Release Information** ..... 26
  - What's New? ..... 27
  - Known Issues ..... 28
- Use Cases** ..... 29
  - Pharmaceutical Manufacturer Use Cases ..... 30
  - CMO Use Cases ..... 32
- TraceLink CSV** ..... 35
  - Inventory Report Overview ..... 36
    - Inventory Report Guidelines (.csv) ..... 38
    - Inventory Report Errors (.csv) ..... 42
    - Inventory Report Message Example (.csv) ..... 43
- TraceLink XML** ..... 44
  - Inventory Adjustments Overview ..... 45
    - Inventory Adjustments Guidelines (.xml) ..... 46
    - Inventory Adjustments Errors (.xml) ..... 51

Inventory Adjustments Message Example (.xml)	52
<b>Inventory Adjustments Reversal Overview</b>	54
Inventory Adjustments Reversal Guidelines (.xml)	55
Inventory Adjustments Reversal Errors (.xml)	60
Inventory Adjustments Reversal Message Example (.xml)	61
<b>Inventory Report Overview</b>	63
Inventory Report Guidelines (.xml)	65
Inventory Report Errors (.xml)	69
Inventory Report Message Example (.xml)	71
<b>SAP IDoc</b>	76
<b>Inventory Adjustments Overview</b>	77
Inventory Adjustments Guidelines (IDoc)	78
Inventory Adjustments Errors (IDoc)	91
Inventory Adjustments Message Example (IDoc)	92
<b>Inventory Adjustments Reversal Overview</b>	94
Inventory Adjustments Reversal Guidelines (IDoc)	95
Inventory Adjustments Reversal Errors (IDoc)	108
Inventory Adjustments Reversal Message Example (IDoc)	109
<b>Inventory Report Overview</b>	111
Inventory Report Guidelines (IDoc - INVRPT01)	113
Inventory Report Errors (IDoc - INVRPT01)	120
Inventory Report Message Example (IDoc - INVRPT01)	122
<b>Inventory Report Overview</b>	125
Inventory Report Guidelines (IDoc - PROACT01)	127
Inventory Report Errors (IDoc - PROACT01)	134
Inventory Report Message Example (IDoc - PROACT01)	135
<b>Enumerations</b>	139
CountryCode	140
CurrencyCode	152

Debit/Credit .....	162
InventoryAdjustmentType .....	163
InventoryAdjustmentType (.xml) .....	168
MaterialType .....	173
MovementIndicator (IDoc) .....	174
MovementIndicator (.xml) .....	175
PlantIdentifier .....	176
QuantityType .....	179
ReasonCode (IDoc) .....	180
ReasonCode (IDoc - Reversal) .....	181
ReasonCode (.xml) .....	182
SpecialStockIndicator (IDoc) .....	183
SpecialStockIndicator (.xml) .....	184
StockQtyType .....	185
StockTypeIndicator (IDoc) .....	186
StockTypeIndicator (.xml) .....	187
SumID .....	188
UnitOfMeasure (IDoc) .....	189
UnitOfMeasure (IDoc - Reversal) .....	193
UnitOfMeasure (.csv) .....	197
UnitOfMeasure (.xml) .....	201
UnitOfMeasure (.xml - Reversal) .....	206
UsageIndicator (IDoc) .....	210
UsageIndicator (.csv & .xml) .....	211
<b>Glossary</b> .....	<b>212</b>

# GETTING STARTED



# Overview

*Integrate existing enterprise systems with TraceLink Inventory messages.*

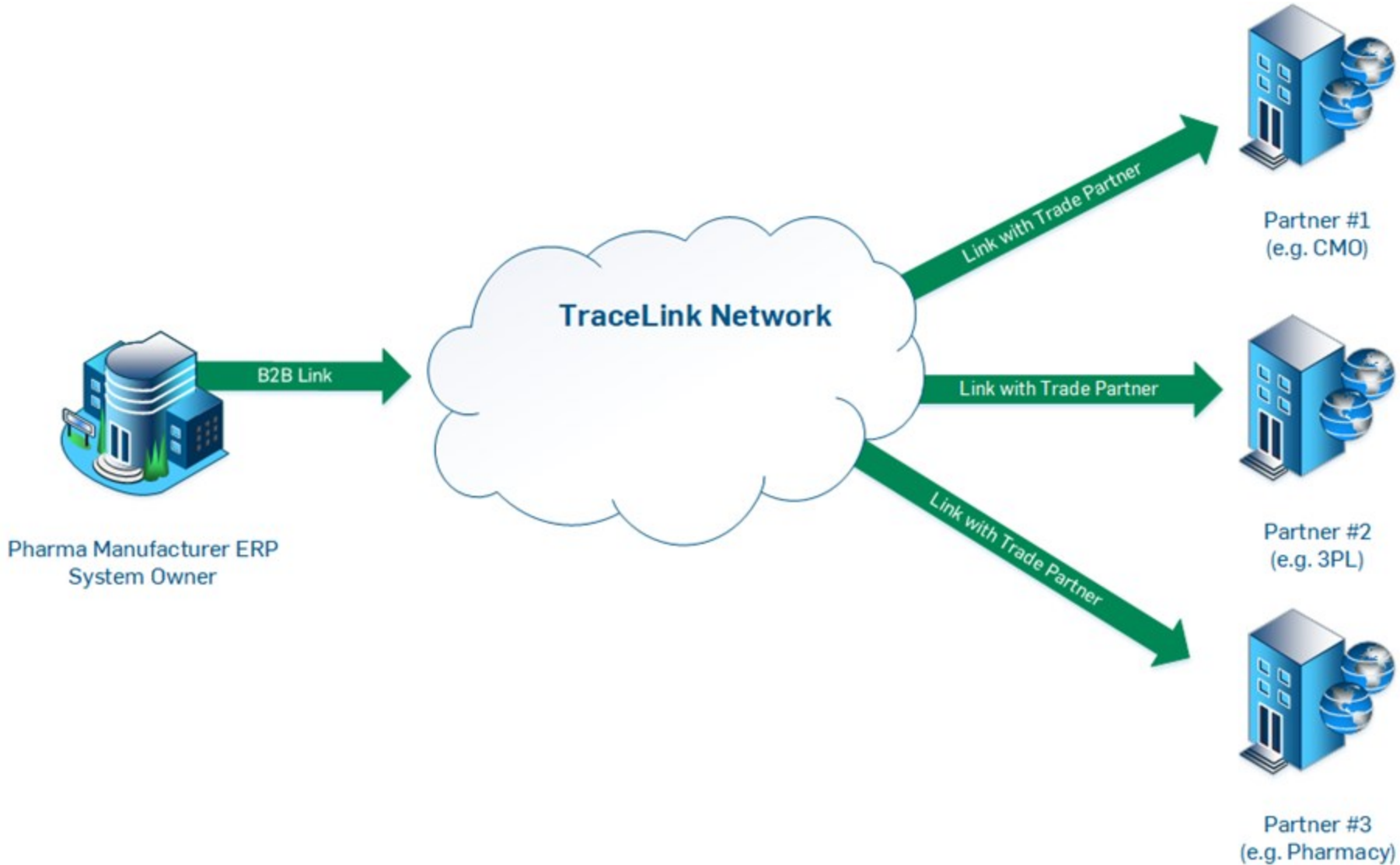
This API Guide contains information that assists in integrating TraceLink Customers' existing enterprise systems with TraceLink Production Tracking Inventory messages. The Production Tracking application is part of TraceLink's supplier collaboration product family that enables communication and collaboration between Pharmaceutical Manufacturers and CMOs in regards to production, inventory, quality documents, and delivery of goods throughout the CMO production process. The Production Tracking Inventory messages focus on facilitating the exchange of inventory information between CMOs and pharmaceutical companies during the production process as well as enabling them to track the inventory balance levels of raw materials, API, and finished goods owned by the Pharmaceutical Manufacturer at CMO locations.

This document is intended for use by IT professionals who are TraceLink Customers setting up Enterprise Resource Planning (ERP) system integration with one or more of TraceLink's applications. The information in this guide is specifically directed at IT professionals who are tasked with setting up system integration that supports asynchronous Production Tracking Inventory messages.

# How Integration Works

TraceLink accepts a variety of file formats to ensure that messages between TraceLink Owners and their Partners are exchanged seamlessly. After integration is set up, when the Owner sends a message into TraceLink (targeted for a Partner) from their enterprise system, the message is sent in the Owner's preferred format. The message is translated (and stored) within TraceLink and is then reformatted into an outbound message for the Partner their preferred file format.

⚠ File size limit is 300mb for asynchronous messages sent inbound to TraceLink.



# How To Use this Guide

There are three main sections for each asynchronous message that are pertinent to integration (available from the Messages side menu):

1. [Guidelines](#)
2. [Errors Table](#)
3. [Message Example](#)

ⓘ If using the PDF version of this document, either download the XSDs from the online version of this guide (under "PDF & XSDs" in the top menu) or contact [Support](#) for assistance.

# Guidelines

## Message Type and Info Exchange Display Name

The relevant Message Type (e.g. SOM\_DESTROY\_EVENT) and Info Exchange Display Name (e.g. Destroy Event) are included above each *Guidelines Table*. The Message Type is used when setting up B2B connections. Use the Info Exchange Display Name in Info Exchange to monitor and troubleshoot messages exchanged with Partners. See the *Info Exchange Online Help* for additional information.

How the Message Type is used depends on the type of B2B connection:

- AS2: The Message Type is in the AS2 header (e.g. SOM\_DESTROY\_EVENT).
- HTTP Post: The Message Type is part of the URL (e.g. [https://prodb2b.tracelink.com:5443/server?request=send&directory=inbox/SOM\\_DESTROY\\_EVENT&filename=<filename>](https://prodb2b.tracelink.com:5443/server?request=send&directory=inbox/SOM_DESTROY_EVENT&filename=<filename>)).
- SFTP: The Message Type is the folder in which the message is saved.

In Info Exchange Profiles, the Message Type is included in the "transaction" column of the Transactional Maps CSV file.

## Guidelines Table


A *Guidelines Table* contains field/element requirements for a message:

Data Element		Occurs	Format	Length	Enums	Req	Description
som:SOMVoidShipment		1...1	-	-	-	M	Root element of message.
som:ControlFileHeader		1...1	-	-	-	M	XML file control header record.
	cmn:FileSenderNumber	1...1	String	1/20	-	M	File sender's company identifier. <sup>1</sup>
	cmn:FileReceiverNumber	1...1	String	1/20	-	M	File recipient's company identifier. <sup>2</sup>
	cmn:FileControlNumber	1...1	String	1/*	-	M	Unique file control ID number. <sup>3</sup>

<sup>1</sup>8888882028655

<sup>2</sup>8888882028677

<sup>3</sup>20160721063132

Data Element			Occurs	Format	Length	Enums	Req	Description
		cmn:FileDate	1...1	Date	1/*	-	M	Date file generated in XML YYYY-MM-DD format. <sup>1</sup>
		cmn:FileTime	1...1	Time	1/*	-	M	Time file generated in XML HH:MM:SSZ format. <sup>2</sup>
	som:MessageBody		1...1	-	-	-	M	Main body of message.
		cmn:DeliveryLocation	0...1	String	0/*	-	O	Specifies identifier of facility or warehouse to scope the Sales Shipment Status update for the serial numbers matching the specified item code and lot number only at the specified location. If the location is omitted, the Sales Shipment status update will be applied globally to all matching serial numbers in the system. <sup>3</sup>
		@type	1...1	String	1/1	LocationId	C	Location identifier type. <sup>4</sup> <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 5px; margin-top: 5px;">  Mandatory if cmn:DeliveryLocation is present. </div>

<sup>1</sup>2016-07-21<sup>2</sup>06:31:32Z<sup>3</sup>8888882028655<sup>4</sup>GLN

## The following columns are included in the Guidelines Table:

### Data Element

This column indicates the source/element name included in the message.

### Occurs

This column indicates the minimum and maximum amount of times that the particular element may occur within the message. In the example above, the cmn:FileDate element must occur a minimum of once and may only occur up to once for the maximum occurrence as indicated by the "1...1". The "\*" character indicates this is an unlimited maximum occurrence.

### Format

This column indicates the element's data format type (such as String, Integer, Boolean, Date, or Time).

### Length

This column indicates the length of the value for the given element. For the cmn:FileDate element above, the value must have at least one character, but does not have a maximum restriction (therefore can be any length). However, be mindful of the description column, as further criteria may be indicated that impacts the field length (e.g. serial number formatting).

### Enums

Certain fields are restricted to specified enumeration values. A link to the enumerations and their definitions is provided in this column. For example, cmn:DeliveryNumber | **@type** has *LocationId* enumeration values.

### Req

Each table indicates whether the element is required for the message. Use the key below to interpret the information in this column:

- **C = Conditional:** A "C" indicates that this element is contingent on other factors. For example, an element could be required for the U.S. but not for any other country. Therefore the element's requirements are contingent on location. Another conditional scenario is that an element may be mandatory, but only if another related element is present.

ⓘ If indicated as "C", read the "Description" column as conditional values may actually be mandatory depending on use case.

- **M = Mandatory:** An "M" indicates the element must be included in the message.

- **O = Optional:** An "O" indicates that a element may be included in the message but is not required.

## Description

Any important notes regarding this section of the message are included here (country requirements, formatting notes, etc.) along with a brief description of the element.

ⓘ Hover over a footnote to display the data input sample for that Data Element. If using the printed version of the document, refer to the matching footnote at the bottom of the table.

# Errors Table

The *Errors* table displays all potential errors that may be encountered for a message. In the "Description" column, the term "source" is used to refer to the specific element in question. For example, in the description for the cmn:PartnerId element below, "source" refers to cmn:PartnerId itself. No value has been provided for this element, therefore triggering the error message.

ⓘ See [Error Messages](#) before interpreting/troubleshooting a message.

Data Element	Error Message	Description
<b>Class 1</b>		
cmn:DeliveryLocation   @type	DeliveryLocation type attribute is required when source delivery location is populated !!!	The error occurs if cmn:DeliveryLocation is populated, but the source is empty or null.
	Valid delivery location type is required !!!	The error occurs if the source is present, but there is no matching entry in the lookup file.
cmn:PartnerId   @type	Party type attribute is required when source partner Id is populated !!!	The error occurs if cmn:PartnerId is populated, but the source is empty or null.
	Valid partner identifier type is required !!!	The error occurs if the source is present, but there is no matching entry in the lookup file.
cmn:DeliveryDirection	Delivery direction of Sent or Received is required !!!	The error occurs if the source is empty or null.
cmn:PartnerId	Partner identifier is required for delivery direction Received !!!	The error occurs if DeliveryDirection = Received, but the source is empty or null.
<b>Class 2</b>		
cmn:DeliveryNumber	Delivery [Delivery Number]: Shipment transaction for specified delivery number must be a sales shipment. Transfer shipment may not be voided.	The error occurs if the source refers to a transfer shipment instead of a sales shipment.
	Delivery [Delivery Number]: Shipment transaction for specified delivery number has not been submitted.	The error occurs if the source does not refer to a shipment in a submitted state.
	Delivery [Delivery Number]: The serial numbers for the specified deliver must be in a Commissioned - Shipped state.	The error occurs if serial numbers are not in a Commissioned - Shipped state.

Data Element	Error Message	Description
<b>Class 3</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Message Examples

The *Message Example* section offers a fully populated message example, including sample data:

📄 Line numbers and syntax highlights are only available in the online version of the guide.

## Example

The following is a fully populated **Serialized Operations Manager ESM Commission** message example:

```
<epcis:EPCISDocument xmlns:epcis="urn:epcglobal:epcis:xsd:1" xmlns:tl="http://epcis.tracelink.com/ns"
xmlns:sbdh="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader"
xmlns:epcglobal="urn:epcglobal:xsd:1" schemaVersion="1" creationDate="2014-02-28T19:12:53Z">
  <EPCISHeader>
    <sbdh:StandardBusinessDocumentHeader>
      <sbdh:HeaderVersion>1.0</sbdh:HeaderVersion>
      <sbdh:Sender>
        <sbdh:Identifier Authority="GLN">81100001014507</sbdh:Identifier>
      </sbdh:Sender>
      <sbdh:Receiver>
        <sbdh:Identifier Authority="GLN">0614141123452</sbdh:Identifier>
      </sbdh:Receiver>
      <sbdh:DocumentIdentification>
        <sbdh:Standard>EPCglobal</sbdh:Standard>
        <sbdh:TypeVersion>1.0</sbdh:TypeVersion>
        <sbdh:InstanceIdentifier>2015-01-09</sbdh:InstanceIdentifier>
        <sbdh:Type>Events</sbdh:Type>
        <sbdh:CreationDateAndTime>2015-01-09T19:12:53</sbdh:CreationDateAndTime>
      </sbdh:DocumentIdentification>
    </sbdh:StandardBusinessDocumentHeader>
  </EPCISHeader>
  <EPCISBody>
    <EventList>
      <ObjectEvent>
        <eventTime>2015-01-09T08:30:21Z</eventTime>
        <eventTimeZoneOffset>-05:00</eventTimeZoneOffset>
      </ObjectEvent>
    </EventList>
  </EPCISBody>
</EPCISDocument>
```

```

    <epc>urn:epc:id:sgtin:068202.0401034.11220207026272</epc>
    <epc>urn:epc:id:sgtin:068202.0401034.15870395191309</epc>
    <epc>urn:epc:id:sgtin:068202.5401034.40000000000019</epc>
  </epcList>
  <action>ADD</action>
  <bizStep>urn:epcglobal:cbv:bizstep:commissioning</bizStep>
  <disposition>urn:epcglobal:cbv:disp:active</disposition>
  <readPoint>
    <id>urn:epc:id:sgln:8888882.02867.0</id>
  </readPoint>
  <bizLocation>
    <id>urn:epc:id:sgln:8888882.02867.0</id>
  </bizLocation>
  <tl:commissionEventExtensions>
    <tl:packagingLevel>CA</tl:packagingLevel>
    <tl:epcAttributes epc="urn:epc:id:sgtin:068202.0401034.11220207026272">
      <tl:barcodeContent>(01)50682020401034(21)11220207026272</tl:barcodeContent>
    </tl:epcAttributes>
    <tl:plantLocationId>12345</tl:plantLocationId>
    <tl:productionLineId>Line24</tl:productionLineId>
    <tl:lineManagerName>John Smith</tl:lineManagerName>
    <tl:itemDetail>
      <tl:internalMaterialCode>100234</tl:internalMaterialCode>
      <tl:packagingItemCode type="GTIN-14">50300694220667</tl:packagingItemCode>
      <tl:countryDrugCode type="US_NDC442">0069-4220-66</tl:countryDrugCode>
      <tl:lot>ABC123</tl:lot>
      <tl:expiry>2017-12-31</tl:expiry>
      <tl:manufacturingDate>2015-12-31</tl:manufacturingDate>
    </tl:itemDetail>
    <tl:referenceDocuments>
      <tl:poNumber>1001764</tl:poNumber>
      <tl:poLine>001</tl:poLine>
      <tl:workOrderNumber>1001764-00</tl:workOrderNumber>
      <tl:referenceIdentifier>A100352</tl:referenceIdentifier>
    </tl:referenceDocuments>
  </tl:commissionEventExtensions>
</ObjectEvent>
</EventList>
</EPCISBody>

```

</epcis:EPCISDocument>

# Error Messages

When configuring asynchronous messages, various errors may be encountered. These errors point to issues with message file validation, data configuration, duplicate files, adapter issues, authorization failures, or database look-up failures (such as look-ups for missing product master data attributes triggered by a look-up code in the file).

## Where are errors found in the UI?

Errors are found in the TraceLink UI in the *Info Exchange* app. Filter errors by error type under the *Processing Status* drop-down option. To display the actual error, select the hyperlinked error type associated with the designated message (see the image below for an example).

	Date - Time	Processing Code Review Status	Output File Name	Output File Format	Actions
✘	28 Dec 2015 - 03:49 PM	<a href="#">Map in Failed</a> --	--	--	--
✘	22 Dec 2015 - 02:10 PM	<a href="#">Processing Failed</a> --	--	--	--
⚠	08 Sep 2016 - 05:00 PM	<a href="#">Needs Investigation</a> --	--	--	--
➔   ✘	30 Apr 2014 - 08:04 PM	<a href="#">Map Out Failed</a> --	--	--	--
➔   ✘	24 Mar 2024 - 12:47 PM	<a href="#">Delivery Failed</a> --	<a href="#">PickShipASN1490359607588.73875FIfH.738750bw4.73875nxTz</a>	X12	--

## What do the errors look like and how are they interpreted?

① The example below reflects a "Map In" error type with errors identified in both the "Input" and "Output" (see *Scope*).

The following information is useful for interpreting errors:

1. The *Scope* (indicated in red below) identifies whether the error is in the input or output.
2. The error message is defined by the *Description* (indicated in yellow below). This provides some context as to why the error occurred. The *Detail* fields may also prove useful when troubleshooting errors in submitted data.
3. Depending on the type of error, the *InputAddress*, *OutputAddress*, *InterfacePath*, and/or *Value* information identifies the full path to the field and instance of that field that triggered the error to assist with troubleshooting.

The following error examples illustrate what an error may look like in the TraceLink application:

```

MAPINPUT:
ERRORS
ID: INPUT_PRESENTATION_MISMATCH
SEVERITY: ERROR
CATEGORY: INPUT_DATA_ERROR
DESCRIPTION: CANNOT PARSE INPUT DATA ACCORDING TO THE PRESENTATION.
SCOPE: INPUT
DETAIL[INPUT PATH]: SNXDISPOSITIONASSIGNEDMESSAGE | MESSAGEBODY | CHOICE_1[0] | COMMISSIONEVENT | COMMISSIONEVENTDETAIL[0] | EVENTDATETIME
DETAIL[INPUT DATA]: 2015-04621T08:18:00.140Z
DETAIL[TYPE]: DATETIME - GENERAL CHARACTERS & XML SCHEMA
DETAIL[PRESSENTATION]: YYYY-MM-DDTHH:MM:SS[.SSS][-HH:MM] - 2003-06-15T13:20:00.000-05:00
DETAIL[ERROR NAME]: PRESENTATION_MISMATCH
INPUTADDRESS
INTERFACEPATH: SNXDISPOSITIONASSIGNEDMESSAGE | MESSAGEBODY | CHOICE_1[0] | COMMISSIONEVENT | COMMISSIONEVENTDETAIL[0] | EVENTDATETIME
XPATH:
PARENTELEMENT: FALSE
VALUE: /SNXDISPOSITIONASSIGNEDMESSAGE/MESSAGEBODY[1]/SNX:COMMISSIONEVENT[1]/SNX:COMMISSIONEVENTDETAIL[1]/CMN:EVENTDATETIME
[1]/EVENTDATETIME
OUTPUTADDRESS
XPATH:
PARENTELEMENT: FALSE
VALUE: /CAN:CANONICALSNXDISPOSITIONASSIGNEDEVENTTYPE/CAN:MESSAGEBODY[1]/CAN:COMMISSIONEVENT[1]/CAN:COMMISSIONEVENTDETAIL
[1]/CMN:EVENTDATETIME[1]

ID: EMPTY_TAG_CREATION_FOR_OUTPUT_FIELD
SEVERITY: ERROR

```

CATEGORY: OUTPUT\_DATA\_ERROR

DESCRIPTION: AN EMPTY TAG WAS CREATED FOR A TARGET FIELD, BUT AN EMPTY TAG IS NOT VALID DATA FOR THE FIELD.

SCOPE: OUTPUT

DETAIL[OUTPUT PATH]: CANONICALSNXDISPOSITIONASSIGNEDEVENTTYPE | MESSAGEBODY | CHOICE\_1[\*] | COMMISSIONEVENT | COMMISSIONEVENTDETAIL[\*]  
| EVENTDATETIME

DETAIL[MINIMUM TARGET ITERATION COUNT]: 1

DETAIL[ACTUAL ITERATION COUNT]: 0

OUTPUTADDRESS

INTERFACEPATH: 1

XPATH:

PARENTELEMENT: FALSE

VALUE: /CAN:CANONICALSNXDISPOSITIONASSIGNEDEVENTTYPE/CAN:MESSAGEBODY[1]/CAN:COMMISSIONEVENT[1]/CAN:COMMISSIONEVENTDETAIL  
[1]/CMN:EVENTDATETIME[1]

## What are the different error types?

The following provides a brief description of each TraceLink error type:

### Map In Failed - Class 1 Errors

This is the first step in the validation process as a file is received by TraceLink. This error is most often caused when required data is either missing or incorrect. This failure indicates that the file was poorly structured (e.g. data elements are in an incorrect order) or contained other errors that prevented TraceLink from integrating and processing the file. These instances trigger schema validation errors. In short, this error indicates that an inbound message has failed data translation. Map In Failed and Map Out Failed may also point to system errors in the map call.

An inbound message is designed to convert an external party's data format to Tracelink's format. The external party sends data to Tracelink for data transformation, therefore Tracelink is the recipient of the data.

### Processing Failed - Class 2 Errors

This is considered the second step in the validation process and generally where all of the business logic is found. This error indicates a failure at any point in a transformation document life cycle (e.g. transmission failure or back end code failure).

### Map Out Failed

This step is when TraceLink maps the outbound data, converting it into the receiving party's preferred format. Sometimes the rules can vary based on the file format. This error indicates an outbound message has failed at some point in this data conversion process. Map In Failed and Map Out Failed can also point to system errors in the map call.

### Blocked

A blocked error indicates a system blockage or processing failure.

## Needs Investigation

This error indicates a processing error or message data translation failure. This error type requires investigation to determine the root of failure. Often, this error occurs when the system believes it is receiving a duplicate file.

① TraceLink does have the ability to push these errors through manually.

## What are the different error classes?

There are three classes of errors that are pertinent to asynchronous integration:

### Class 1 Errors

Class 1 errors are mapping validation errors. These errors fall under the "Map In" error type. This is where the data structure of the message is validated (e.g. where data type information or an element's required or optional requirement is validated. Map In errors are returned if there is an issue with this first validation step. For example, if a required field is omitted, a class 1 error results.

### Class 2 Errors

Class 2 errors are data translation errors which can be found in the "Processing Failed" category of errors. A Processing Failed error type indicates that the map failed to translate to TraceLink's internal format and therefore cannot hit the back end API. Think of this second step as an "integrity check" against the submitted data. For example, if a serial number is submitted but is assigned to an incorrect product code, an error results. Another example is if a certain event (such as Commission) is submitted, but the serial number included in that event is unrecognized, an error results. The following are some class 2 error examples:

System Validation	Error
Serial Number does not exist.	Serial number [Serial Number] does not exist.
Serial Number is associated to a company or location that differs from the company or location shown in Show Data from.	Location [Location Name] was not valid for serial number [Serial Number].
Serial Number has a parent.	Operation could not be performed because serial number (child serial number) and serial number (container serial number) are currently in different states or the operation would result in them having different states. Parent and child serial numbers are not permitted to be in different states.
Serial Number cannot be updated from its current state to the new state.	Cannot perform operation on serial number [serial number] with item state/serial number state [item state/serial number state]. This operation can only be performed when: [List of item states separated by "or"].

## Class 3 Errors

Class 3 errors occur when data translation to a third party (Trade Partner) fails due to an internal server error. Class 3 errors are rare, though they may still occur due to missing or incorrect information in the Master Data. The troubleshooting recommendation for Class 3 errors is to first check Master Data, make appropriate edits, and then resubmit the designated file. If Master Data is correctly configured, contact [Support](#) for further assistance.

### Where is error information found in this Guide?

Error Information is provided in each message's *Errors* section, as errors are message-specific:

The *Errors* table displays all potential errors that may be encountered for a message. In the "Description" column, the term "source" is used to refer to the specific element in question. For example, in the description for the cmn:PartnerId element below, "source" refers to cmn:PartnerId itself. No value has been provided for this element, therefore triggering the error message.

📌 See [Error Messages](#) before interpreting/troubleshooting a message.

Data Element	Error Message	Description
<b>Class 1</b>		
cmn:DeliveryLocation   @type	DeliveryLocation type attribute is required when source delivery location is populated !!!	The error occurs if cmn:DeliveryLocation is populated, but the source is empty or null.
	Valid delivery location type is required !!!	The error occurs if the source is present, but there is no matching entry in the lookup file.
cmn:PartnerId   @type	Party type attribute is required when source partner Id is populated !!!	The error occurs if cmn:PartnerId is populated, but the source is empty or null.
	Valid partner identifier type is required !!!	The error occurs if the source is present, but there is no matching entry in the lookup file.
cmn:DeliveryDirection	Delivery direction of Sent or Received is required !!!	The error occurs if the source is empty or null.
cmn:PartnerId	Partner identifier is required for delivery direction Received !!!	The error occurs if DeliveryDirection = Received, but the source is empty or null.
<b>Class 2</b>		
cmn:DeliveryNumber	Delivery [Delivery Number]: Shipment transaction for specified delivery number must be a sales shipment.	The error occurs if the source refers to a transfer shipment instead of a sales shipment.

Data Element	Error Message	Description
	Transfer shipment may not be voided.	
	Delivery [Delivery Number]: Shipment transaction for specified delivery number has not been submitted.	The error occurs if the source does not refer to a shipment in a submitted state.
	Delivery [Delivery Number]: The serial numbers for the specified deliver must be in a Commissioned - Shipped state.	The error occurs if serial numbers are not in a Commissioned - Shipped state.

**Class 3**

The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.

# RELEASE INFORMATION



# What's New?

## Release Track & Trace Services Version 2024.4

### Messages Updated in Version 2024.4:

No messages were updated in this release.

### Messages Added in Version 2024.4:

No messages were added in this release.

## Release Track & Trace Services Version 2024.3

### Messages Updated in Version 2024.3

No messages were updated in this release.

### Messages Added in Version 2024.3:

No messages were added in this release.

## Release Track & Trace Services Version 2024.2

### Messages Updated in Version 2024.2:

No messages were updated in this release.

### Messages Added in Version 2024.2:

No messages were added in this release.

# Known Issues

## Release Track & Trace Services Version 2024.4

### Known Issues in Version 2024.4:

There are no known issues in this release.

# USE CASES



# Pharmaceutical Manufacturer Use Cases



## TraceLink Roles

TraceLink API Guides group messages by application. Each API Guide contains all messages available within that application. Your company's business type (e.g. CMO, Wholesale Distributor, 3PL) and role in the TraceLink Network (Owner or Partner<sup>1</sup>) determine which of these messages to develop (i.e. not all messages within this guide may fulfill your business or compliance needs).

See below to confirm which messages you should develop based on your role in the supply chain and/or the TraceLink Network.

① Configure and exchange (send or receive) each message separately as a best practice.

<sup>1</sup>See Glossary for details on Owners and Partners.

## Inventory Owners

### TraceLink Inventory Report (XML) Inbound

Pharmaceutical Manufacturers receive the [Inventory Report](#) message from a CMO, which details inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO's location. The message includes the product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

### TraceLink Inventory Report (CSV) Inbound

Pharmaceutical Manufacturers receive the [Inventory Report](#) message from a CMO, which details inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO's location. The message includes the product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

### SAP Inventory Report (IDoc) Inbound

Pharmaceutical Manufacturers receive the [Inventory Report](#) message from a CMO, which details inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO's location. The message includes the product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

### TraceLink Inventory Adjustments (XML) Inbound

Pharmaceutical Manufacturers receive the [Inventory Adjustments](#) message from a CMO, which contains adjustments to the inventory balance of a specific product code and lot number, and the CMO's reasons for the adjustments.

### SAP Inventory Adjustments (IDoc) Inbound

Pharmaceutical Manufacturers receive the [Inventory Adjustments](#) message from a CMO, which contains adjustments to the inventory balance of a specific product code and lot number, and the CMO's reasons for the adjustments.

### TraceLink Inventory Adjustments Reversal (XML) Inbound

Pharmaceutical Manufacturers receive the [Inventory Adjustments Reversal](#) message from a CMO, which communicates the CMO's reversal of previous inventory adjustments to a specific product code and lot number.

### SAP Inventory Adjustments Reversal (IDoc) Inbound

Pharmaceutical Manufacturers receive the [Inventory Adjustments Reversal](#) message from a CMO, which communicates the CMO's reversal of previous inventory adjustments to a specific product code and lot number.

# CMO Use Cases



## TraceLink Roles

TraceLink API Guides group messages by application. Each API Guide contains all messages available within that application. Your company's business type (e.g. CMO, Wholesale Distributor, 3PL) and role in the TraceLink Network (Owner or Partner<sup>1</sup>) determine which of these messages to develop (i.e. not all messages within this guide may fulfill your business or compliance needs).

See below to confirm which messages you should develop based on your role in the supply chain and/or the TraceLink Network.

① Configure and exchange (send or receive) each message separately as a best practice.

<sup>1</sup>See Glossary for details on Owners and Partners.

## Inventory Partners

### TraceLink Inventory Report (XML) Inbound

CMOs send the [Inventory Report](#) message to a Pharmaceutical Manufacturer, which details inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO's location. The message includes the product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

### TraceLink Inventory Report (CSV) Inbound

CMOs send the [Inventory Report](#) message to a Pharmaceutical Manufacturer, which details inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO's location. The message includes the product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

### SAP Inventory Report (IDoc) Inbound

CMOs send the [Inventory Report](#) message to a Pharmaceutical Manufacturer, which details inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO's location. The message includes the product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

### TraceLink Inventory Adjustments (XML) Inbound

CMOs send the [Inventory Adjustments](#) message to a Pharmaceutical Manufacturer, which contains adjustments to the inventory balance of a specific product code and lot number, and the CMO's reasons for the adjustments.

### SAP Inventory Adjustments (IDoc) Inbound

CMOs send the [Inventory Adjustments](#) message to a Pharmaceutical Manufacturer, which contains adjustments to the inventory balance of a specific product code and lot number, and the CMO's reasons for the adjustments.

### TraceLink Inventory Adjustments Reversal (XML) Inbound

CMOs send the [Inventory Adjustments Reversal](#) message to a Pharmaceutical Manufacturer, which communicates the CMO's reversal of previous inventory adjustments to a specific product code and lot number.

## SAP Inventory Adjustments Reversal (IDoc) Inbound

CMOs send the [Inventory Adjustments Reversal](#) message to a Pharmaceutical Manufacturer, which communicates the CMO's reversal of previous inventory adjustments to a specific product code and lot number.

# TRACELINK CSV



# Inventory Report Overview

The Inventory Report message allows a CMO to provide a Pharmaceutical Manufacturer with the inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO location. Information communicated includes product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### CSV Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - INVRPT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - PROACT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### XML Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

# Inventory Report Guidelines (.csv)

See How To Use this Guide before interpreting the guidelines below.

The following outlines the *TL\_CSV\_PTINV\_InventoryReport\_IB* message guidelines.

① When sending an element in Date or DateTime format, a valid date must be given. "00" is not a valid day or month value and "0000" is not a valid year value.

Data Element	Occurs	Format	Length	Enum	Req	Description
CSV_INVENTORY	1..1	-	-	-	M	Inventory report root record.
Version	1..1	String	0/*	-	M	TraceLink version release number for the CSV Inventory format. Valid value: INV-1. <sup>1</sup>
SenderProcessLinkKey	1..1	String	0/70	-	M	Sender's ProcessLink key. <sup>2</sup>
UsageIndicator	1..1	String	0/*	UsageIndicator	M	Indicates whether the data is production or test data. Valid values: <sup>3</sup> <ul style="list-style-type: none"> <li>• Production</li> <li>• Test</li> </ul>
InventoryReportingDate	1..1	String	0/*	-	M	Effective GMT date quantities reported in format YYYYMMDD. Can be current date or past date. <sup>4</sup>
InventoryReportingTime	0..1	String	0/*	-	O	Effective GMT time quantities reported in format HHMMSS, expressed in 24-hour clock. <sup>5</sup>
ReportingPartnerFunction	1..1	String	0/*	-	M	Qualifier that describes the function for reporting location. Valid values: <sup>6</sup> <ul style="list-style-type: none"> <li>• Customer</li> </ul>

<sup>1</sup>INV-1

<sup>2</sup>SUPP01.CUSTA02

<sup>3</sup>Production

<sup>4</sup>20101001

<sup>5</sup>013030

<sup>6</sup>Customer

Data Element	Occurs	Format	Length	Enum	Req	Description
						<ul style="list-style-type: none"> <li>Supplier</li> </ul>
ReportingLocationName	1...1	String	1/40	-	M	Business name or other descriptive name of the reporting location where inventory is held. <sup>1</sup>
ReportingLocationCity	0...1	String	0/35	-	O	City of the reporting location. <sup>2</sup>
ReportingLocationStateorProvince	0...1	String	0/*	-	O	State or Province of reporting location using ISO code. <sup>3</sup>
ReportingLocationPostalCode	0...1	String	0/15	-	O	Postal code of reporting location.
ReportingLocationCountryCode	0...1	String	0/*	-	O	Country code of reporting location using ISO code. <sup>4</sup>
ReportingLocationCustomerAssignedID	0...1	String	0/80	-	O	Facility ID for the location of the inventory, using the customer's identifier for the location. <sup>5</sup>
ReportingLocationSupplierAssignedID	0...1	String	0/80	-	O	Facility ID for the location of the inventory, using the supplier's identifier for location. <sup>6</sup>
ItemCodeCustomerAssigned	1...1	String	1/35	-	M	Item code using customer's identifier for the material. Inventory balances can be reported for API, raw material, component material, WIP, or finished goods. <sup>7</sup>
ItemCodeSupplierAssigned	0...1	String	0/35	-	O	Item code using supplier's identifier for the material. <sup>8</sup>
ItemDescription	0...1	String	0/70	-	O	Inventory item description in free form text (e.g. MigraineMed 90 MG 100 count). <sup>9</sup>
MaterialType	0...1	String	1/5	MaterialType	O	Type of material. Valid values: <sup>10</sup>

<sup>1</sup>Contract Pharma<sup>2</sup>Madison<sup>3</sup>WI<sup>4</sup>US<sup>5</sup>88006541141<sup>6</sup>CP012<sup>7</sup>99999002110<sup>8</sup>9887<sup>9</sup>FLUMED 75 MG Oral 30 ct<sup>10</sup>FG

Data Element	Occurs	Format	Length	Enum	Req	Description
						<ul style="list-style-type: none"> <li>• API - Active Pharmaceutical Ingredient</li> <li>• CM - Component Material</li> <li>• FG - Finished Good</li> <li>• RM - Raw Material</li> <li>• WIP - WIP Material</li> </ul>
CustomerLotNumber	0...1	String	1/35	-	0	Customer's batch/lot number for the material. <sup>1</sup>
SupplierLotNumber	0...1	String	1/35	-	0	Supplier's batch/lot number for the material. <sup>2</sup>
OriginalManufacturerID	0...1	String	1/35	-	0	Original manufacturer of the material represented by the item code and lot. <sup>3</sup>
CountryOfOrigin	0...1	String	0/*	-	0	Country of origin for the material represented by the item code and lot using ISO code. <sup>4</sup>
ExpirationDate	0...1	Date	0/*	-	0	Expiration date for material represented by the item code and lot number in YYYYMMDD format. <sup>5</sup>
Stock Quantities Data Elements	-	-	-	-	0	Quantity data elements. Flat structure. Same hierarchical level as all other fields in source file. Use at least one of following four quantity types: <ul style="list-style-type: none"> <li>• ON_HAND</li> <li>• ON_HOLD</li> <li>• IN_INSPECTION</li> <li>• ON_ORDER</li> </ul>
QuantityOnHand	0...1	String	1/3	-	0	Total quantity of material for the item/lot on hand as of the reporting date. On Hand is also referred to as Unrestricted or Available stock. <sup>6</sup>

<sup>1</sup>A123456<sup>2</sup>BD22<sup>3</sup>88006541141<sup>4</sup>US<sup>5</sup>20130630<sup>6</sup>1000000

Data Element	Occurs	Format	Length	Enum	Req	Description
OnHandUnitOfMeasure	0...1	String	0/15	UnitOfMeasure	0	Unit of measure for on hand quantity. <sup>1</sup>
QuantityOnHold	0...1	String	1/3	-	0	Total quantity of material for the item/lot on hold as of the reporting date. On Hold is also referred to as Restricted or Blocked stock. <sup>2</sup>
OnHoldUnitOfMeasure	0...1	String	0/15	UnitOfMeasure	0	Unit of measure for "on hold" quantity. <sup>3</sup>
QuantityInQualityInspection	0...1	String	1/3	-	0	Total quantity of material for the item/lot in quality inspection as of the reporting date. <sup>4</sup>
QualityInspectionUnitOfMeasure	0...1	String	0/15	UnitOfMeasure	0	Unit of measure for Quality Inspection quantity. <sup>5</sup>
QuantityOnOrder	0...1	String	1/3	-	0	Total quantity of material on order as of the reporting date. <sup>6</sup>
OnOrderUnitOfMeasure	0...1	String	0/15	UnitOfMeasure	0	Unit of measure for "on order" quantity. <sup>7</sup>

<sup>1</sup>EA<sup>2</sup>1000000<sup>3</sup>EA<sup>4</sup>1000000<sup>5</sup>EA<sup>6</sup>1000000<sup>7</sup>EA

# Inventory Report Errors (.csv)

The following errors may be encountered with the Inventory Report message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
CustomerLotNumber	Customer Lot Number is missing !!!	The error occurs if a required field is empty or null.
Stock Quantities Data Elements	Stock Quantities are Blank or Missing	The error occurs if there is not a valid value in at least one of the four following stock quantity types. It does not matter which quantity type has the valid value. A valid value is any number of zero or greater.
QuantityOnHand	Quantity On Hand has no Unit of Measure	The error occurs if Quantity is present but UnitOfMeasure is missing or null.
QuantityOnHold	Quantity On Hold has no Unit of Measure	
QuantityInQualityInspection	Quantity In Quality Inspection has no Unit of Measure	
QuantityOnOrder	Quantity On Order has no Unit of Measure	
<b>Class 2 Errors</b>		
companyLocationId	caller <company><companyLocationId> not found.format (companyLocationId).	The error occurs if a company cannot be found in the database.
companyLocationId   <b>parentCompanyId</b>	caller <location>companyLocationId <is not a location of company id <parentCompanyId>.	The error occurs if a companyLocationId is not a location of the specified parentCompanyId.
userid	caller <:user> <userid> is not admin of company.	The error occurs if a non admin of a company attempts to create an inventory report.
userid   <b>companyLocationId</b>	caller <:user> <userid> does not work for <company id> <companyLocationId>.	The error occurs if a validation error prevents a company's ID from working with a companyLocationId.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Report Message Example (.csv)

The following is a fully populated Inventory Report example:

```
Version|SenderProcessLinkKey|UsageIndicator|InventoryReportingDate|InventoryReportingTime|ReportingPartnerFunction|ReportingLocationName|ReportingLocationCity|ReportingLocationStateorProvince|ReportingLocationPostalCode|ReportingLocationCountryCode|ReportingLocationCustomerAssignedID|ReportingLocationSupplierAssignedID|ItemCodeCustomerAssigned|ItemCodeSupplierAssigned|ItemDescription|MaterialType|CusotmerLotNumber|SupplierLotNumber|OriginalManufacturer|CountryOfOrigin|ExpirationDate|QuantityOnHand|OnHandUnitOfMeasure|QuantityOnHold|OnHoldUnitOfMeasure|QuantityInQualityInspection|QualityInspectionUnitOfMeasure|QuantityOnOrder|OnOrderUnitOfMeasure
INV-1|SUPP01.CUSTA02|Production|20101001|13030|Supplier|Contract Pharma|Madison|VT|99999|US|88006541141|CP012|99999002110|9887|FLUMED 75 MG Oral 30ct|FG|A123456|BD22|Contract Pharma|US|20130630|1000000|EA|80000|EA|20000|EA|50000|EA
INV-1|SUPP01.CUSTA02|Production|20101001|13030|Supplier|Contract Pharma|Madison|VT|99999|US|88006541141|CP012|99999002110|9887|FLUMED 75 MG Oral 30ct|FG|A123457|BD44|Contract Pharma|US|20130630|600000|EA|100000|EA|2000000|EA|400000|EA
INV-1|SUPP01.CUSTA02|Production|20101001|13030|Supplier|Contract Pharma|Madison|VT|99999|US|88006541141|CP012|99999410223|4569|FLUMED API|API|Z26584|K2908|Kendall Pharma|CA|20140330|500000|EA|125000|EA|375000|EA|100000|EA
INV-1|SUPP01.CUSTA02|Production|20101001|13030|Supplier|Contract Pharma|Madison|VT|99999|US|88006541141|CP012|99999410223|4569|FLUMED API|API|12345|24680|Kendall Pharma|CA|20140630|600000|EA|125000|EA|475000|EA|500000|EA
```

# TRACELINK XML



# Inventory Adjustments Overview

The Inventory Adjustments message allows a CMO to inform the Pharmaceutical Manufacturer of adjustments made to the inventory balance of a specific product code and lot number along with the reason for adjustment. Inventory Adjustment supports a change in inventory quantities in the CMO's system that is communicated to the Pharmaceutical Manufacturer's system such as a reduction due to spoilage, a transfer of goods to and from QA, or a transfer of goods to and from any kind of blocked status.

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### IDoc Format

- [Inventory Adjustments Guidelines](#)
- [Inventory Adjustments Errors](#)
- [Inventory Adjustments Message Example](#)

### XML Format

- [Inventory Adjustments Guidelines](#)
- [Inventory Adjustments Errors](#)
- [Inventory Adjustments Message Example](#)

# Inventory Adjustments Guidelines (.xml)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_ADJUSTMENT

**Info Exchange Display Name:** Inventory Adjustment

Data Element		Occurs	Format	Length	Enum	Req	Description
iaj:TL_XML_InventoryAdjustments		1...1	-	-	-	M	Root element.
iaj:ControlFileHeader		1...1	-	-	-	M	Inventory adjustments file control header.
	txn:Version	1...1	String	1/20	-	M	Version of XML message. <sup>1</sup>
	txn:FileSenderNumber	1...1	String	1/20	-	M	File sender company ID - Supplier Site ID. <sup>2</sup>
	txn:FileReceiverNumber	1...1	String	1/20	-	M	File receiver company ID - customer. <sup>3</sup>
	txn:UsageIndicator	1...1	String	0/10	UsageIndicator	M	Identifies test or production data. <sup>4</sup>
	txn:FileTransactionType	1...1	String	1/30	-	M	File transaction type = INVENTORYADJUSTED. <sup>5</sup>
	txn:FileControlNumber	1...1	String	1/20	-	M	Unique file control ID number. <sup>6</sup>
	txn:FileDate	1...1	String	1/*	-	M	Date file generated. <sup>7</sup>

<sup>1</sup>10

<sup>2</sup>SUPP01

<sup>3</sup>CUSTA02

<sup>4</sup>Production

<sup>5</sup>INVENTORYADJUSTED

<sup>6</sup>987654321

<sup>7</sup>2015-03-15

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:FileTime	1..1	Time	1/*	-	M	Time file generated. <sup>1</sup>
	iaj:InventoryAdjustmentsHeader	1..1	-	-	-	M	Inventory adjustments header segment.
	txn:DateInventoryAdjusted	1..1	String	1/*	-	M	Date of inventory adjustment. <sup>2</sup>
	txn:TimeStamp	0..1	Time	0/*	-	O	Time of inventory adjustment. <sup>3</sup>
	txn:ReferenceDocumentNumber	0..1	String	0/35	-	O	Reference document number for inventory adjustment.
	txn:DocumentDate	0..1	String	0/*	-	O	Date of referenced document. <sup>4</sup>
	txn:DocumentText	0..1	String	0/*	-	O	Reference document text.
	txn:BillOfLadingNumber	0..1	String	0/35	-	O	Bill of Lading number.
	txn:CustomerNumber	0..1	String	0/80	-	O	Customer ID number. <sup>5</sup>
	txn:SupplierNumber	0..1	String	0/80	-	O	Supplier ID number. <sup>6</sup>
	txn:ShipToNumber	0..1	String	0/80	-	O	Ship-to party ID number. <sup>7</sup>
	iaj:InventoryAdjustmentsDetails	1..*	String	-	-	M	Inventory adjustments item details segment.

<sup>1</sup>06:30:32<sup>2</sup>2015-03-15<sup>3</sup>06:30:32<sup>4</sup>2015-03-15<sup>5</sup>CUSTA02<sup>6</sup>SUPP01<sup>7</sup>SHIPT001

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:PurchaseOrderNumber	0...1	String	0/35	-	0	Purchase Order (PO) number. <sup>1</sup>
	txn:PurchaseOrderItem	0...1	String	0/6	-	0	PO item number. <sup>2</sup>
	txn:PurchaseOrderDate	0...1	String	0/*	-	0	PO String. <sup>3</sup>
	txn:WorkOrderNumber	0...1	String	0/35	-	0	Work or production order number. <sup>4</sup>
	txn:DeliveryOrderNumber	0...1	String	0/35	-	0	Delivery order number. <sup>5</sup>
	txn:DeliveryOrderItem	0...1	String	0/6	-	0	Delivery order item number. <sup>6</sup>
	txn:CustomerMaterialNumber	1...1	String	1/35	-	M	Customer material number. <sup>7</sup>
	txn:MaterialDescription	0...1	String	0/*	-	0	Material description.
	txn:SupplierMaterialNumber	0...1	String	0/35	-	0	Supplier material number. <sup>8</sup>
	txn:DateOfManufacture	0...1	String	0/*	-	0	Date of manufacture for finished good. <sup>9</sup>
	txn:Plant	0...1	String	0/4	-	0	Plant ID. <sup>10</sup>
	txn:StorageLocation	0...1	String	0/4	-	0	Storage location. <sup>11</sup>

<sup>1</sup>8196733288<sup>2</sup>1<sup>3</sup>2015-03-15<sup>4</sup>87904847<sup>5</sup>87904847<sup>6</sup>1<sup>7</sup>PH-4200<sup>8</sup>859500<sup>9</sup>2013-03-15<sup>10</sup>2003<sup>11</sup>123

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:CustomerBatchNumber	0..1	String	0/35	-	0	Customer batch number. <sup>1</sup>
	txn:ExpirationDate	0..1	String	0/*	-	0	Expiration String for customer material. <sup>2</sup>
	txn:SupplierBatchNumber	0..1	String	0/35	-	0	Supplier batch number.
	txn:AdjustmentQuantities	1..1	-	-	-	M	Adjustment quantity posted with UOM.
	txn:QuantityPosted	1..1	String	1/15	-	M	Quantity consumed. <sup>3</sup>
	txn:QuantityUOM	1..1	String	1/3	UnitOfMeasure	M	Unit of measure for quantity consumed. <sup>4</sup>
	txn:AdjustmentReasonCodes	0..1	-	-	-	0	Adjustment type and reason codes describing nature of inventory adjustment.
	txn:AdjustmentTypeCode	0..1	String	0/*	InventoryAdjustmentType	0	Adjustment type or transaction or movement code for inventory adjustment.
	txn:AdjustmentTypeDescription	0..1	String	0/*	-	0	Adjustment type description.
	txn:AdjustmentTypeEffectiveDate	0..1	String	0/*	-	0	Effective String of adjustment transaction.
	txn:AdjustmentTypeReasonCodes	-	-	-	-	0	Supplementary reason codes for inventory adjustment type.

<sup>1</sup>999898<sup>2</sup>2016-09-15<sup>3</sup>10<sup>4</sup>EA

Data Element				Occurs	Format	Length	Enum	Req	Description
			txn:ReasonCodes	0..*	-	-	-	0	Supplementary reason codes.
			txn:ReasonCode	0..1	String	0/*	ReasonCode	0	Supplementary reason codes.
			txn:ReasonCodeDescription	0..1	String	0/*	-	0	Supplementary reason code description.
			txn:ReasonCodeEffectiveDate	0..1	String	0/*	-	0	Effective String for reason code.
			txn:Indicators	0..1	-	-	-	0	Adjustment type indicators and flags.
			txn:SpecialStockIndicator	0..1	String	0/*	SpecialStockIndicator	0	Special stock indicator.
			txn:MovementTypeIndicator	0..1	String	0/*	MovementIndicator	0	Movement type indicator.
			txn:StockTypeIndicator	0..1	String	0/*	StockTypeIndicator	0	Stock type - status of inventory.
			txn:FinalIssue	0..1	String	0/*	-	0	Final issue on item.
			txn:DeliveryComplete	0..1	String	0/*	-	0	Delivery completed.
			txn:DebitCredit	0..1	String	0/*	-	0	Debit or credit indicator (+ or -).

# Inventory Adjustments Errors (.xml)

The following errors may be encountered with the Inventory Adjustments message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
txn:FileTransactionType	Incorrect file transaction type. Expected: "INVENTORYADJUSTED"	The error occurs if FileTransactionType is not equal to "INVENTORYADJUSTED".
txn:FileDate	File creation date is required !!!	The error occurs if the source is empty or null.
txn:FileTime	File creation time is required !!!	The error occurs if the source is empty or null.
txn:DateInventoryAdjusted	Date of adjustment in DateInventoryAdjusted is required !!!	The error occurs if the source is empty or null.
<b>Class 2 Errors</b>		
AuthenticationId   <b>authid</b>	auth ID is required, must be a company admin for the PL <plid>.	The error occurs if a non-administrator of the link to the application attempts to make an inventory adjustment.
ProcessLinkId   <b>plid</b>	Process Link ID is required.	The error occurs if an adjustment is attempted without a specified application link.
Received From Company	Received from company is required for processing canonical inventory (ieid): < ie.id>.	The error occurs if the received from company is not specified in the inventory adjustment.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Adjustments Message Example (.xml)

The following is a fully populated Inventory Adjustments example:

```
<?xml version="1.0" encoding="UTF-8"?>
<iaj:TL_XML_InventoryAdjustments xmlns:iaj="urn:tracelink:mapper:inventoryadjustmentstransaction"
  xmlns:txn="urn:tracelink:mapper:commontransactionaltypes">
  <iaj:ControlFileHeader>
    <txn:Version>10</txn:Version>
    <txn:FileSenderNumber>FROS</txn:FileSenderNumber>
    <txn:FileReceiverNumber>0000038141</txn:FileReceiverNumber>
    <txn:FileTransactionType>INVENTORYADJUSTED</txn:FileTransactionType>
    <txn:FileControlNumber>000000000619827</txn:FileControlNumber>
    <txn:FileDate>2012-07-10</txn:FileDate>
    <txn:FileTime>17:28:50</txn:FileTime>
  </iaj:ControlFileHeader>
  <iaj:InventoryAdjustmentsHeader>
    <txn:DateInventoryAdjusted>2012-05-27</txn:DateInventoryAdjusted>
    <txn:ReferenceDocumentNumber>4901365532</txn:ReferenceDocumentNumber>
    <txn:DocumentText>Entrada de consumos de or</txn:DocumentText>
    <txn:BillOfLadingNumber>1234xYz</txn:BillOfLadingNumber>
    <txn:CustomerNumber>0001013694</txn:CustomerNumber>
    <txn:SupplierNumber>CH01</txn:SupplierNumber>
    <txn:ShipToNumber>987695</txn:ShipToNumber>
  </iaj:InventoryAdjustmentsHeader>
  <iaj:InventoryAdjustmentsDetails>
    <txn:PurchaseOrderNumber>4500176884</txn:PurchaseOrderNumber>
    <txn:PurchaseOrderItem>0</txn:PurchaseOrderItem>
    <txn:WorkOrderNumber>000001003933</txn:WorkOrderNumber>
    <txn:CustomerMaterialNumber>FRB674908</txn:CustomerMaterialNumber>
    <txn:MaterialDescription>Item text</txn:MaterialDescription>
    <txn:Plant>FROS</txn:Plant>
    <txn:StorageLocation>ED01</txn:StorageLocation>
    <txn:CustomerBatchNumber>0001106639</txn:CustomerBatchNumber>
    <txn:ExpirationDate>2016-04-11</txn:ExpirationDate>
    <txn:SupplierBatchNumber>6024593</txn:SupplierBatchNumber>
    <txn:AdjustmentQuantities>
      <txn:QuantityPosted>22590.000</txn:QuantityPosted>
    </txn:AdjustmentQuantities>
  </iaj:InventoryAdjustmentsDetails>
</iaj:TL_XML_InventoryAdjustments>
```

```
<txn:QuantityUOM>U2</txn:QuantityUOM>
</txn:AdjustmentQuantities>
<txn:AdjustmentReasonCodes>
  <txn:AdjustmentTypeCode>701</txn:AdjustmentTypeCode>
  <txn:AdjustmentTypeReasonCodes>
    <txn:ReasonCodes>
      <txn:ReasonCode>Quality</txn:ReasonCode>
    </txn:ReasonCodes>
  <txn:Indicators>
    <txn:MovementTypeIndicator>PurchaseOrder</txn:MovementTypeIndicator>
    <txn:StockTypeIndicator>Quality</txn:StockTypeIndicator>
  </txn:Indicators>
</txn:AdjustmentTypeReasonCodes>
</txn:AdjustmentReasonCodes>
</iaj:InventoryAdjustmentsDetails>
</iaj:TL_XML_InventoryAdjustments>
```

# Inventory Adjustments Reversal Overview

The Inventory Adjustments Reversal message informs the Pharmaceutical Manufacturer of a reversal of inventory adjustment previously communicated by a CMO.

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### IDoc Format

- [Inventory Adjustments Reversal Guidelines](#)
- [Inventory Adjustments Reversal Errors](#)
- [Inventory Adjustments Reversal Message Example](#)

### XML Format

- [Inventory Adjustments Reversal Guidelines](#)
- [Inventory Adjustments Reversal Errors](#)
- [Inventory Adjustments Reversal Message Example](#)

# Inventory Adjustments Reversal Guidelines (.xml)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_ADJUSTMENT\_REVERSAL

**Info Exchange Display Name:** Inventory Adjustment Reversal

① When sending an element in Date or DateTime format, a valid date must be given. "00" is not a valid day or month value and "0000" is not a valid year value.

Data Element		Occurs	Format	Length	Enum	Req	Description
iaj:TL_XML_InventoryAdjustments		1..1	-	-	-	-	Root element.
	iaj:ControlFileHeader	1..1	-	-	-	-	Inventory adjustments file control header.
	txn:Version	1..1	String	1/20	-	M	Version of XML message. <sup>1</sup>
	txn:FileSenderNumber	1..1	String	1/20	-	M	File sender company ID - Supplier Site ID. <sup>2</sup>
	txn:FileReceiverNumber	1..1	String	1/20	-	M	File receiver company ID - customer. <sup>3</sup>
	txn:UsageIndicator	1..1	String	0/10	UsageIndicator	M	Identifies test or production data. <sup>4</sup>
	txn:FileTransactionType	1..1	String	1/30	-	M	File message type MUST equal INVENTORYADJUSTEDREVERSAL. <sup>5</sup>
	txn:FileControlNumber	1..1	String	1/20	-	M	Unique file control ID number. <sup>6</sup>

<sup>1</sup>0

<sup>2</sup>SUPP01

<sup>3</sup>CUSTA02

<sup>4</sup>Production

<sup>5</sup>INVENTORYADJUSTEDREVERSAL

<sup>6</sup>987654321

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:FileDate	1..1	Date	1/*	-	M	Date file generated. <sup>1</sup>
	txn:FileTime	1..1	Time	1/*	-	M	Time file generated. <sup>2</sup>
	iaj:InventoryAdjustmentsHeader	1..1	-	-	-	M	Inventory adjustments header segment.
	txn:DateInventoryAdjusted	1..1	Date	1/*	-	M	Date of inventory adjustment. <sup>3</sup>
	txn:TimeStamp	0..1	Time	0/*	-	O	Time goods consumed. <sup>4</sup>
	txn:ReferenceDocumentNumber	0..1	String	0/35	-	O	Reference document number for inventory adjustment.
	txn:DocumentDate	0..1	Date	0/*	-	O	Date of referenced document. <sup>5</sup>
	txn:DocumentText	0..1	String	0/*	-	O	Reference document text.
	txn:BillOfLadingNumber	0..1	String	0/35	-	O	Bill of Lading number.
	txn:CustomerNumber	0..1	String	0/80	-	O	Customer ID number. <sup>6</sup>
	txn:SupplierNumber	0..1	String	0/80	-	O	Supplier ID number. <sup>7</sup>
	txn:ShipToNumber	0..1	String	0/80	-	O	Ship-to party ID number. <sup>8</sup>
	iaj:InventoryAdjustmentsDetails	1..*	String	-	-	M	Inventory adjustments item details segment.
	txn:PurchaseOrderNumber	0..1	String	0/35	-	O	Purchase Order (PO) number. <sup>9</sup>
	txn:PurchaseOrderItem	0..1	String	0/6	-	O	PO item number. <sup>10</sup>

<sup>1</sup>2015-03-15<sup>2</sup>06:30:32<sup>3</sup>2015-03-15<sup>4</sup>06:30:32<sup>5</sup>2015-03-15<sup>6</sup>CUSTA02<sup>7</sup>SUPP01<sup>8</sup>SHIPT001<sup>9</sup>8196733288<sup>10</sup>1

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:PurchaseOrderDate	0...1	Date	0/*	-	0	PO date. <sup>1</sup>
	txn:WorkOrderNumber	0...1	String	0/35	-	0	Work or production order number. <sup>2</sup>
	txn:DeliveryOrderNumber	0...1	String	0/35	-	0	Delivery order number. <sup>3</sup>
	txn:DeliveryOrderItem	0...1	String	0/6	-	0	Delivery order item number. <sup>4</sup>
	txn:CustomerMaterialNumber	1...1	String	0/35	-	M	Customer material number. <sup>5</sup>
	txn:MaterialDescription	0...1	String	0/*	-	0	Material description.
	txn:SupplierMaterialNumber	0...1	String	0/35	-	0	Supplier material number. <sup>6</sup>
	txn:DateOfManufacture	0...1	Date	0/*	-	0	Date of manufacture for finished good. <sup>7</sup>
	txn:Plant	0...1	String	0/4	-	0	Plant ID. <sup>8</sup>
	txn:StorageLocation	0...1	String	0/4	-	0	Storage location. <sup>9</sup>
	txn:CustomerBatchNumber	0...1	String	0/35	-	0	Customer batch number. <sup>10</sup>
	txn:ExpirationDate	0...1	Date	0/*	-	0	Expiration date for customer material. <sup>11</sup>
	txn:SupplierBatchNumber	0...1	String	0/35	-	0	Supplier batch number.
	txn:AdjustmentQuantities	1...1	-	-	-	M	Adjustment quantity posted with UOM.

<sup>1</sup>2015-03-15<sup>2</sup>87904847<sup>3</sup>87904847<sup>4</sup>1<sup>5</sup>PH-4200<sup>6</sup>859500<sup>7</sup>2015-03-15<sup>8</sup>2003<sup>9</sup>123<sup>10</sup>999898<sup>11</sup>2016-09-15

Data Element				Occurs	Format	Length	Enum	Req	Description
			txn:QuantityPosted	1..1	String	1/15	-	M	Quantity consumed. <sup>1</sup>
			txn:QuantityUOM	1..1	String	0/3	UnitOfMeasure	M	Unit of measure for quantity consumed. <sup>2</sup>
		txn:AdjustmentReasonCodes		0..1	-	-	-	O	Adjustment type and reason codes describing nature of inventory adjustment.
			txn:AdjustmentTypeCode	0..1	String	0/*	InventoryAdjustmentType	O	Adjustment type or transaction or movement code for inventory adjustment.
			txn:AdjustmentTypeDescription	0..1	String	0/*	-	O	Adjustment type description.
			txn:AdjustmentTypeEffectiveDate	0..1	Date	0/*	-	O	Effective date of adjustment transaction.
			txn:AdjustmentTypeReasonCodes	-	-	-	-	O	Supplementary reason codes for inventory adjustment type.
			txn:ReasonCodes	-	-	-	-	O	Supplementary reason codes.
			txn:ReasonCode	0..1	String	0/*	ReasonCode	O	Supplementary reason codes.
			txn:ReasonCodeDescription	0..1	String	0/*	-	O	Supplementary reason code description.
			txn:ReasonCodeEffectiveDate	0..1	Date	0/*	-	O	Effective date for reason code.
			txn:Indicators	0..1	-	-	-	O	Adjustment type indicators and flags.
			txn:SpecialStockIndicator	0..1	String	0/*	SpecialStockIndicator	O	Special stock indicator.
			txn:MovementTypeIndicator	0..1	String	0/*	MovementIndicator	O	Movement type indicator.

<sup>1</sup>-10<sup>2</sup>EA

Data Element					Occurs	Format	Length	Enum	Req	Description
				txn:StockTypeIndicator	0..1	String	0/*	StockTypeIndicator	0	Stock type - status of inventory.
				txn:FinalIssue	0..1	String	0/*	-	0	Final issue on item?
				txn:DeliveryComplete	0..1	String	0/*	-	0	Delivery completed.
				txn:DebitCredit	0..1	String	0/*	Debit/Credit	0	Debit or credit indicator.

# Inventory Adjustments Reversal Errors (.xml)

The following errors may be encountered with the Inventory Adjustments Reversal message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
txn:FileTransactionType	Incorrect file transaction type. Expected: "INVENTORYADJUSTEDREVERSAL"	The error occurs if FileTransactionType is not equal to "INVENTORYADJUSTEDREVERSAL".
txn:FileDate	File creation date is required !!!	The error occurs if the source is empty or null.
txn:FileTime	File creation time is required !!!	The error occurs if the source is empty or null.
txn:DateInventoryAdjusted	Date of adjustment in DateInventoryAdjusted is required !!!	The error occurs if the source is empty or null.
<b>Class 2 Errors</b>		
AuthenticationId   <b>authid</b>	auth ID is required, must be a company admin for the PL <plid>.	The error occurs if a non-administrator of the application link attempts to make an inventory adjustment.
ProcessLinkId   <b>plid</b>	Process Link ID is required.	The error occurs if an adjustment is attempted without a specified application link.
Received From Company	Received from company is required for processing canonical inventory (ieid): < ie.id>.	The error occurs if the received from company is not specified in the inventory adjustment.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Adjustments Reversal Message Example (.xml)

The following is a fully populated Inventory Adjustments Reversal example:

```
<?xml version="1.0" encoding="UTF-8"?>
<iaj:TL_XML_InventoryAdjustments xmlns:iaj="urn:tracelink:mapper:inventoryadjustmentstransaction"
  xmlns:txn="urn:tracelink:mapper:commontransactionaltypes">
  <iaj:ControlFileHeader>
    <txn:Version>10</txn:Version>
    <txn:FileSenderNumber>FROS</txn:FileSenderNumber>
    <txn:FileReceiverNumber>0000038141</txn:FileReceiverNumber>
    <txn:UsageIndicator>Test</txn:UsageIndicator>
    <txn:FileTransactionType>INVENTORYADJUSTED</txn:FileTransactionType>
    <txn:FileControlNumber>000000000619827</txn:FileControlNumber>
    <txn:FileDate>2012-07-10</txn:FileDate>
    <txn:FileTime>17:28:50</txn:FileTime>
  </iaj:ControlFileHeader>
  <iaj:InventoryAdjustmentsHeader>
    <txn:DateInventoryAdjusted>2012-05-27</txn:DateInventoryAdjusted>
    <txn:ReferenceDocumentNumber>4901365532</txn:ReferenceDocumentNumber>
    <txn:DocumentText>Entrada de consumos de or</txn:DocumentText>
    <txn:BillOfLadingNumber>1234xYz</txn:BillOfLadingNumber>
    <txn:CustomerNumber>0001013694</txn:CustomerNumber>
    <txn:SupplierNumber>CH01</txn:SupplierNumber>
    <txn:ShipToNumber>987695</txn:ShipToNumber>
  </iaj:InventoryAdjustmentsHeader>
  <iaj:InventoryAdjustmentsDetails>
    <txn:PurchaseOrderNumber>4500176884</txn:PurchaseOrderNumber>
    <txn:PurchaseOrderItem>0</txn:PurchaseOrderItem>
    <txn:WorkOrderNumber>000001003933</txn:WorkOrderNumber>
    <txn:CustomerMaterialNumber>FRB674908</txn:CustomerMaterialNumber>
    <txn:MaterialDescription>Item text</txn:MaterialDescription>
    <txn:Plant>FROS</txn:Plant>
    <txn:StorageLocation>ED01</txn:StorageLocation>
    <txn:CustomerBatchNumber>0001106639</txn:CustomerBatchNumber>
    <txn:ExpirationDate>2013-04-11</txn:ExpirationDate>
    <txn:SupplierBatchNumber>6024593</txn:SupplierBatchNumber>
    <txn:AdjustmentQuantities>
```

```
<txn:QuantityPosted>22590.000</txn:QuantityPosted>
  <txn:QuantityUOM>U2</txn:QuantityUOM>
</txn:AdjustmentQuantities>
<txn:AdjustmentReasonCodes>
  <txn:AdjustmentTypeCode>GoodsReceipt</txn:AdjustmentTypeCode>
  <txn:AdjustmentTypeReasonCodes>
    <txn:ReasonCodes>
      <txn:ReasonCode>Quality</txn:ReasonCode>
    </txn:ReasonCodes>
    <txn:Indicators>
      <txn:MovementTypeIndicator>PurchaseOrder</txn:MovementTypeIndicator>
      <txn:StockTypeIndicator>Quality</txn:StockTypeIndicator>
    </txn:Indicators>
  </txn:AdjustmentTypeReasonCodes>
</txn:AdjustmentReasonCodes>
</iaj:InventoryAdjustmentsDetails>
</iaj:TL_XML_InventoryAdjustments>
```

# Inventory Report Overview

The Inventory Report message allows a CMO to provide a Pharmaceutical Manufacturer with the inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO location. Information communicated includes product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### CSV Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - INVRPT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - PROACT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### XML Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

# Inventory Report Guidelines (.xml)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_REPORT

**Info Exchange Display Name:** Inventory Report

① When sending an element in Date or DateTime format, a valid date must be given. "00" is not a valid day or month value and "0000" is not a valid year value.

Data Element		Occurs	Format	Length	Enum	Req	Description
ns0:TL_XML_InventoryReport		1..1	-	-	-	M	XML Inventory Report message.
	ControlFileHeader	1..1	-	-	-	M	Inventory report file control header.
	txn:Version	1..1	String	1/20	-	M	TraceLink version release number for the CSV Inventory format. Valid value: INV-1. <sup>1</sup>
	txn:FileSenderNumber	1..1	String	1/70	-	M	File sender company IDE - Supplier Site ID. <sup>2</sup>
	txn:FileReceiverNumber	1..1	String	1/70	-	M	File receiver company ID - customer. <sup>3</sup>
	txn:UsageIndicator	1..1	String	1/10	UsageIndicator	M	Indicates whether the data is production or test data. <sup>4</sup>
	txn:FileTransactionType	1..1	String	1/30	-	M	File message type. <sup>5</sup>
	txn:FileControlNumber	1..1	String	1/20	-	M	Unique file control ID number. <sup>6</sup>
	txn:FileDate	1..1	Date	1/*	-	M	Date file generated. <sup>7</sup>

<sup>1</sup>INV-1

<sup>2</sup>SUPP01

<sup>3</sup>CUSTA02

<sup>4</sup>Production

<sup>5</sup>INVENTORYREPORT

<sup>6</sup>987654321

<sup>7</sup>2012-03-15

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:FileTime	1..1	Time	1/*	-	M	Time file generated. <sup>1</sup>
	XML_InventoryReport	1..*	-	-	-	M	Inventory report data payload.
	txn:InventoryReportingDate	1..1	Date	1/*	-	M	Effective GMT date quantities reported. Can be current date or past date. <sup>2</sup>
	txn:InventoryReportingTime	0..1	Time	0/*	-	O	Effective GMT time quantities reported in format HHMMSS, expressed in 24-hour clock. <sup>3</sup>
	txn:ReportingPartnerFunction	1..1	String	1/10	-	M	Qualifier describes reporting location function. Either Customer or Supplier: only one per message. <sup>4</sup>
	txn:ReportingLocationName	1..1	String	1/35	-	M	Business name or other descriptive name of the reporting location where inventory is held. <sup>5</sup>
	txn:ReportingLocationCity	0..1	String	0/35	-	O	City of the reporting location. <sup>6</sup>
	txn:ReportingLocationStateorProvince	0..1	String	0/*	-	O	State or Province of reporting location using ISO code. <sup>7</sup>
	txn:ReportingLocationPostalCode	0..1	String	0/15	-	O	Postal code of reporting location. <sup>8</sup>
	txn:ReportingLocationCountryCode	0..1	String	0/*	CountryCode	O	Country code of reporting location using ISO code. <sup>9</sup>
	txn:ReportingLocationCustomerAssignedID	0..1	String	0/*	-	O	Facility ID for the location of the inventory, using the customer's identifier for location. <sup>10</sup>
	txn:ReportingLocationSupplierAssignedID	0..1	String	0/*	-	O	Facility ID for the location of the inventory, using the supplier's identifier for location. <sup>11</sup>

<sup>1</sup>06:30:32<sup>2</sup>2012-03-15<sup>3</sup>06:30:32<sup>4</sup>Customer<sup>5</sup>Contract Pharma<sup>6</sup>Madison<sup>7</sup>WI<sup>8</sup>53713<sup>9</sup>US<sup>10</sup>88006541141<sup>11</sup>CP012

Data Element		Occurs	Format	Length	Enum	Req	Description
	txn:ItemCodeCustomerAssigned	1..1	String	1/*	-	M	Item code using customer's identifier for the material. Inventory balances can be reported for API, raw material, component material, WIP, or finished goods. <sup>1</sup>
	txn:ItemCodeSupplierAssigned	0..1	String	0/*	-	O	Item code using supplier's identifier for the material. <sup>2</sup>
	txn:ItemDescription	0..1	String	0/*	-	O	Inventory item description in free form text (e.g. MigraineMed 90 MG 100 count). <sup>3</sup>
	txn:MaterialType	0..1	String	0/5	MaterialType	O	Type of material. <sup>4</sup>
	txn:CustomerLotNumber	1..1	String	1/*	-	M	Customer's batch/lot number for the material. <sup>5</sup>
	txn:SupplierLotNumber	0..1	String	0/*	-	O	Supplier's batch/lot number for the material. <sup>6</sup>
	txn:OriginalManufacturerID	0..1	String	0/*	-	O	Original manufacturer of the material represented by the item code and lot. <sup>7</sup>
	txn:CountryOfOrigin	0..1	String	0/*	-	O	Country of origin for the material represented by the item code and lot using ISO code. <sup>8</sup>
	txn:ExpirationDate	0..1	Date	0/*	-	O	Expiration date for material represented by the item code and lot number. <sup>9</sup>
	txn:StockQuantities(1)	1..4	-	-	-	O	Stock quantities sub-group ON_HAND. Use at least one of four quantity types: ON_HAND, ON_HOLD, IN_INSPECTION, or ON_ORDER.
	txn:QuantityType	0..1	String	0/*	StockQtyType	O	Valid value: ON_HAND. <sup>10</sup>


<sup>1</sup>99999002110<sup>2</sup>9887<sup>3</sup>FLUMED 75 MG Oral 30 ct<sup>4</sup>FG<sup>5</sup>A123456<sup>6</sup>BD22<sup>7</sup>88006541141<sup>8</sup>US<sup>9</sup>2013-06-30<sup>10</sup>ON\_HAND

Data Element			Occurs	Format	Length	Enum	Req	Description
		txn:UnitOfMeasure	0..1	String	0/3	UnitOfMeasure	0	Unit of measure for on order quantity. <sup>1</sup>
		txn:Quantity	0..1	String	0/15	-	0	Total quantity of material on order as of the reporting date. Value set to zero if not included in file. <sup>2</sup>
		txn:StockQuantities(2)	1..4	-	-	-	0	Stock quantities sub-group ON_HOLD.
		txn:QuantityType	0..1	String	0/*	StockQtyType	0	Valid value: ON_HOLD. <sup>3</sup>
		txn:UnitOfMeasure	0..1	String	0/3	UnitOfMeasure	0	Unit of measure for on order quantity. <sup>4</sup>
		txn:Quantity	0..1	String	0/15	-	0	Total quantity of material on order as of the reporting date. Value set to zero if not included in file. <sup>5</sup>
		txn:StockQuantities(3)	1..4	-	-	-	0	Stock quantities sub-group IN_INSPECTION.
		txn:QuantityType	0..1	String	0/*	StockQtyType	0	Valid value: IN_INSPECTION. <sup>6</sup>
		txn:UnitOfMeasure	0..1	String	0/3	UnitOfMeasure	0	Unit of measure for "on order" quantity. <sup>7</sup>
		txn:Quantity	0..1	String	0/15	-	0	Total quantity of material on order as of the reporting date. Value set to zero if not included in file. <sup>8</sup>
		txn:StockQuantities(4)	1..4	-	-	-	0	Stock quantities sub-group ON_ORDER.
		txn:QuantityType	0..1	String	0/*	StockQtyType	0	Valid value: ON_ORDER. <sup>9</sup>
		txn:UnitOfMeasure	0..1	String	0/3	UnitOfMeasure	0	Unit of measure for "on order" quantity. <sup>10</sup>
		txn:Quantity	0..1	String	0/15	-	0	Total quantity of material on order as of the reporting date. Value set to zero if not included in file. <sup>11</sup>

<sup>1</sup>EA<sup>2</sup>1000000<sup>3</sup>ON\_HOLD<sup>4</sup>EA<sup>5</sup>1000000<sup>6</sup>IN\_INSPECTION<sup>7</sup>EA<sup>8</sup>1000000<sup>9</sup>ON\_ORDER<sup>10</sup>EA<sup>11</sup>1000000

# Inventory Report Errors (.xml)

The following errors may be encountered with the Inventory Report message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
txn:ReportingLocationStateorProvince	Country Region Code is Invalid	The error occurs if result does not validate against data element type enumerator.  <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <p> ValidateCountryRegionCode = Concatenation of ReportingLocationCountryCode + "-" + ReportingLocationStateorProvince.</p> </div>
txn:ItemCodeCustomerAssigned	An empty tag was created for a target field, but an empty tag is not valid data for the field.	The error occurs if the required source is missing or null.
txn:CustomerLotNumber	Customer Lot Number is missing !!!	The error occurs if the required source is missing or null.
txn:StockQuantities(1)	Stock Quantities are Blank or Missing.	The error occurs if there is not a valid value in at least one of the four following stock quantity types. It does not matter which quantity type has the valid value. A valid value is any number of 0 or greater.
txn:StockQuantities(1)   <b>txn:QuantityType</b>	Quantity On Hand has no Unit of Measure	The error occurs if Quantity is present but UnitOfMeasure is missing or null.
txn:StockQuantities(2)	Stock Quantities are Blank or Missing.	The error occurs if there is not a valid value in at least one of the four following stock quantity types. It does not matter which quantity type has the valid value. A valid value is any number of 0 or greater.
txn:StockQuantities(2)   <b>txn:QuantityType</b>	Quantity On Hold has no Unit of Measure	The error occurs if Quantity is present but UnitOfMeasure is missing or null.
txn:StockQuantities(3)	Stock Quantities are Blank or Missing.	The error occurs if there is not a valid value in at least one of the four following stock quantity types. It does not matter which quantity type has the valid value. A valid value is any

Data Element	Error Message	Description
		number of 0 or greater.
txn:StockQuantities(3)   <b>txn:QuantityType</b>	Quantity In Quality Inspection has no Unit of Measure	The error occurs if Quantity is present but UnitOfMeasure is missing or null.
txn:StockQuantities(4)	Stock Quantities are Blank or Missing.	The error occurs if there is not a valid value in at least one of the four following stock quantity types. It does not matter which quantity type has the valid value. A valid value is any number of 0 or greater.
txn:StockQuantities(4)   <b>txn:QuantityType</b>	Quantity On Order has no Unit of Measure	The error occurs if Quantity is present but UnitOfMeasure is missing or null.
txn:UnitOfMeasure	UnitOfMeasure occurs fewer times than its minimum number of occurrences.	The error occurs if Quantity is present but UnitOfMeasure is missing or null.
<b>Class 2 Errors</b>		
companyLocationId	caller <company><companyLocationId> not found.format (companyLocationId).	The error occurs if a company cannot be found in the database.
companyLocationId   <b>parentCompanyId</b>	caller <location>companyLocationId <is not a location of company id <parentCompanyId>.	The error occurs if a companyLocationId is not a location of the specified parentCompanyID.
userid	caller <:user> <userid> is not admin of company.	The error occurs if a non admin of a company attempts to create an inventory report.
userid   <b>companyLocationId</b>	caller <:user> <userid> does not work for <company id> <companyLocationId>.	The error occurs if a validation error prevents a company's ID from working with a companyLocationId.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Report Message Example (.xml)

The following is a fully populated Inventory Report example:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns0:TL_XML_InventoryReport xmlns:ns0="inventoryreporttransaction"
  xmlns:txn="urn:tracelink:mapper:commontransactionaltypes">
  <ControlFileHeader>
    <txn:Version>INV-1</txn:Version>
    <txn:FileSenderNumber>SUPP01</txn:FileSenderNumber>
    <txn:FileReceiverNumber>CUSTA02</txn:FileReceiverNumber>
    <txn:UsageIndicator>Production</txn:UsageIndicator>
    <txn:FileTransactionType>INVENTORYREPORT</txn:FileTransactionType>
    <txn:FileControlNumber>987654321</txn:FileControlNumber>
    <txn:FileDate>2010-10-10</txn:FileDate>
    <txn:FileTime>06:30:32</txn:FileTime>
  </ControlFileHeader>
  <XML_InventoryReport>
    <txn:InventoryReportingDate>2010-10-01</txn:InventoryReportingDate>
    <txn:InventoryReportingTime>13:03:00</txn:InventoryReportingTime>
    <txn:ReportingPartnerFunction>Supplier</txn:ReportingPartnerFunction>
    <txn:ReportingLocationName>Contract Pharma</txn:ReportingLocationName>
    <txn:ReportingLocationCity>Madison</txn:ReportingLocationCity>
    <txn:ReportingLocationStateorProvince>VT</txn:ReportingLocationStateorProvince>
    <txn:ReportingLocationPostalCode>99999</txn:ReportingLocationPostalCode>
    <txn:ReportingLocationCountryCode>US</txn:ReportingLocationCountryCode>
    <txn:ReportingLocationCustomerAssignedID>88006541141</txn:ReportingLocationCustomerAssignedID>
    <txn:ReportingLocationSupplierAssignedID>CP012</txn:ReportingLocationSupplierAssignedID>
    <txn:ItemCodeCustomerAssigned>99999002110</txn:ItemCodeCustomerAssigned>
    <txn:ItemCodeSupplierAssigned>9887</txn:ItemCodeSupplierAssigned>
    <txn:ItemDescription>FLUMED 75 MG Oral 30 ct</txn:ItemDescription>
    <txn:MaterialType>FG</txn:MaterialType>
    <txn:CustomerLotNumber>A123456</txn:CustomerLotNumber>
    <txn:SupplierLotNumber>BD22</txn:SupplierLotNumber>
    <txn:OriginalManufacturerID>123456789</txn:OriginalManufacturerID>
    <txn:CountryOfOrigin>US</txn:CountryOfOrigin>
    <txn:ExpirationDate>2013-06-30</txn:ExpirationDate>
    <txn:StockQuantities>
```

```

    <txn:QuantityType>IN_INSPECTION</txn:QuantityType>
    <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
    <txn:Quantity>20000</txn:Quantity>
  </txn:StockQuantities>
  <txn:StockQuantities>
    <txn:QuantityType>ON_HAND</txn:QuantityType>
    <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
    <txn:Quantity>1000000</txn:Quantity>
  </txn:StockQuantities>
  <txn:StockQuantities>
    <txn:QuantityType>ON_HOLD</txn:QuantityType>
    <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
    <txn:Quantity>80000</txn:Quantity>
  </txn:StockQuantities>
  <txn:StockQuantities>
    <txn:QuantityType>ON_ORDER</txn:QuantityType>
    <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
    <txn:Quantity>50000</txn:Quantity>
  </txn:StockQuantities>
</XML_InventoryReport>
<XML_InventoryReport>
  <txn:InventoryReportingDate>2010-10-01</txn:InventoryReportingDate>
  <txn:InventoryReportingTime>13:03:00</txn:InventoryReportingTime>
  <txn:ReportingPartnerFunction>Supplier</txn:ReportingPartnerFunction>
  <txn:ReportingLocationName>Contract Pharma</txn:ReportingLocationName>
  <txn:ReportingLocationCity>Madison</txn:ReportingLocationCity>
  <txn:ReportingLocationStateorProvince>VT</txn:ReportingLocationStateorProvince>
  <txn:ReportingLocationPostalCode>99999</txn:ReportingLocationPostalCode>
  <txn:ReportingLocationCountryCode>US</txn:ReportingLocationCountryCode>
  <txn:ReportingLocationCustomerAssignedID>88006541141</txn:ReportingLocationCustomerAssignedID>
  <txn:ReportingLocationSupplierAssignedID>CP012</txn:ReportingLocationSupplierAssignedID>
  <txn:ItemCodeCustomerAssigned>99999002110</txn:ItemCodeCustomerAssigned>
  <txn:ItemCodeSupplierAssigned>9887</txn:ItemCodeSupplierAssigned>
  <txn:ItemDescription>FLUMED 75 MG Oral 30 ct</txn:ItemDescription>
  <txn:MaterialType>FG</txn:MaterialType>
  <txn:CustomerLotNumber>A123457</txn:CustomerLotNumber>
  <txn:SupplierLotNumber>BD44</txn:SupplierLotNumber>
  <txn:OriginalManufacturerID>123456789</txn:OriginalManufacturerID>

```

```

<txn:CountryOfOrigin>US</txn:CountryOfOrigin>
<txn:ExpirationDate>2013-06-30</txn:ExpirationDate>
<txn:StockQuantities>
  <txn:QuantityType>IN_INSPECTION</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>2000000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_HAND</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>600000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_HOLD</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>100000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_ORDER</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>400000</txn:Quantity>
</txn:StockQuantities>
</XML_InventoryReport>
<XML_InventoryReport>
  <txn:InventoryReportingDate>2010-10-01</txn:InventoryReportingDate>
  <txn:InventoryReportingTime>13:03:00</txn:InventoryReportingTime>
  <txn:ReportingPartnerFunction>Supplier</txn:ReportingPartnerFunction>
  <txn:ReportingLocationName>Contract Pharma</txn:ReportingLocationName>
  <txn:ReportingLocationCity>Madison</txn:ReportingLocationCity>
  <txn:ReportingLocationStateorProvince>VT</txn:ReportingLocationStateorProvince>
  <txn:ReportingLocationPostalCode>99999</txn:ReportingLocationPostalCode>
  <txn:ReportingLocationCountryCode>US</txn:ReportingLocationCountryCode>
  <txn:ReportingLocationCustomerAssignedID>88006541141</txn:ReportingLocationCustomerAssignedID>
  <txn:ReportingLocationSupplierAssignedID>CP012</txn:ReportingLocationSupplierAssignedID>
  <txn:ItemCodeCustomerAssigned>99999410223</txn:ItemCodeCustomerAssigned>
  <txn:ItemCodeSupplierAssigned>4569</txn:ItemCodeSupplierAssigned>
  <txn:ItemDescription>FLUMED API</txn:ItemDescription>
  <txn:MaterialType>API</txn:MaterialType>

```

```

<txn:CustomerLotNumber>Z26584</txn:CustomerLotNumber>
<txn:SupplierLotNumber>K2908</txn:SupplierLotNumber>
<txn:OriginalManufacturerID>246809753</txn:OriginalManufacturerID>
<txn:CountryOfOrigin>CA</txn:CountryOfOrigin>
<txn:ExpirationDate>2014-03-30</txn:ExpirationDate>
<txn:StockQuantities>
  <txn:QuantityType>IN_INSPECTION</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>375000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_HAND</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>500000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_HOLD</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>125000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_ORDER</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>100000</txn:Quantity>
</txn:StockQuantities>
</XML_InventoryReport>
<XML_InventoryReport>
  <txn:InventoryReportingDate>2010-10-01</txn:InventoryReportingDate>
  <txn:InventoryReportingTime>13:03:00</txn:InventoryReportingTime>
  <txn:ReportingPartnerFunction>Supplier</txn:ReportingPartnerFunction>
  <txn:ReportingLocationName>Contract Pharma</txn:ReportingLocationName>
  <txn:ReportingLocationCity>Madison</txn:ReportingLocationCity>
  <txn:ReportingLocationStateorProvince>VT</txn:ReportingLocationStateorProvince>
  <txn:ReportingLocationPostalCode>99999</txn:ReportingLocationPostalCode>
  <txn:ReportingLocationCountryCode>US</txn:ReportingLocationCountryCode>
  <txn:ReportingLocationCustomerAssignedID>88006541141</txn:ReportingLocationCustomerAssignedID>
  <txn:ReportingLocationSupplierAssignedID>CP012</txn:ReportingLocationSupplierAssignedID>
  <txn:ItemCodeCustomerAssigned>99999410223</txn:ItemCodeCustomerAssigned>

```

```

<txn:ItemCodeSupplierAssigned>4569</txn:ItemCodeSupplierAssigned>
<txn:ItemDescription>FLUMED API</txn:ItemDescription>
<txn:MaterialType>API</txn:MaterialType>
<txn:CustomerLotNumber>12345</txn:CustomerLotNumber>
<txn:SupplierLotNumber>24680</txn:SupplierLotNumber>
<txn:OriginalManufacturerID>246809753</txn:OriginalManufacturerID>
<txn:CountryOfOrigin>CA</txn:CountryOfOrigin>
<txn:ExpirationDate>2014-06-30</txn:ExpirationDate>
<txn:StockQuantities>
  <txn:QuantityType>IN_INSPECTION</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>475000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_HAND</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>600000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_HOLD</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>125000</txn:Quantity>
</txn:StockQuantities>
<txn:StockQuantities>
  <txn:QuantityType>ON_ORDER</txn:QuantityType>
  <txn:UnitOfMeasure>EA</txn:UnitOfMeasure>
  <txn:Quantity>500000</txn:Quantity>
</txn:StockQuantities>
</XML_InventoryReport>
</ns0:TL_XML_InventoryReport>

```



# Inventory Adjustments Overview

The Inventory Adjustments message allows a CMO to inform the Pharmaceutical Manufacturer of adjustments made to the inventory balance of a specific product code and lot number along with the reason for adjustment. Inventory Adjustment supports a change in inventory quantities in the CMO's system that is communicated to the Pharmaceutical Manufacturer's system such as a reduction due to spoilage, a transfer of goods to and from QA, or a transfer of goods to and from any kind of blocked status.

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### IDoc Format

- [Inventory Adjustments Guidelines](#)
- [Inventory Adjustments Errors](#)
- [Inventory Adjustments Message Example](#)

### XML Format

- [Inventory Adjustments Guidelines](#)
- [Inventory Adjustments Errors](#)
- [Inventory Adjustments Message Example](#)

# Inventory Adjustments Guidelines (IDoc)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_ADJUSTMENT

**Info Exchange Display Name:** Inventory Adjustment

Data Element		Occurs	Format	Length	Enum	Req	Description
MBGMCR03		1..1	-	-	-	M	XML IDoc MBGMCR root element.
	IDOC	1..1	-	-	-	M	IDoc root.
	@BEGIN	1..1	String	0/*	-	M	Begin of message attribute. <sup>1</sup>
	EDI_DC40	1..1	-	-	-	M	IDoc control record.
	@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
	TABNAM	1..1	String	0/*	-	M	IDoc table name. <sup>3</sup>
	MANDT	0..1	String	0/3	-	O	Client. <sup>4</sup>
	DOCNUM	1..1	String	1/16	-	M	IDoc number. <sup>5</sup>
	DOCREL	0..1	String	0/4	-	O	IDoc version release number. <sup>6</sup>
	STATUS	0..1	String	0/2	-	O	Current IDoc processing status. <sup>7</sup>
	DIRECT	0..1	String	0/*	-	O	Direction. <sup>8</sup>
	OUTMOD	0..1	String	0/1	-	O	Output mode. <sup>9</sup>

<sup>1</sup>

<sup>2</sup>

<sup>3</sup>EDI\_DC40

<sup>4</sup>001

<sup>5</sup>00000000000619827

<sup>6</sup>700

<sup>7</sup>30

<sup>8</sup>1

<sup>9</sup>2

Data Element				Occurs	Format	Length	Enum	Req	Description
			EXPRSS	0..1	String	0/1	-	O	Overriding in inbound processing.
			TEST	1..1	String	1/1	UsageIndicator	M	Test flag. <sup>1</sup>
			IDOCTYP	1..1	String	1/30	-	M	IDoc basic type. <sup>2</sup>
			CIMTYP	0..1	String	0/*	-	O	Name of extension type.
			MESTYP	1..1	String	1/30	-	M	Logical message type. <sup>3</sup>
			MESCOD	0..1	String	0/3	-	O	Logical message code.
			MESFCT	0..1	String	0/3	-	O	Logical message function.
			STD	0..1	String	0/1	-	O	EDI standard.
			STDVRS	0..1	String	0/6	-	O	Version of EDI standard.
			STDMES	0..1	String	0/6	-	O	EDI message type.
			SNDPOR	0..1	String	0/10	-	O	Sender port (SAP System, EDI subsystem). <sup>4</sup>
			SNDPRT	0..1	String	0/2	-	O	Partner type of sender. <sup>5</sup>
			SNDPFC	0..1	String	0/2	-	O	Partner function of sender.
			SNDPRN	1..1	String	1/10	-	M	Partner number of sender. <sup>6</sup>
			SNDSAD	0..1	String	0/21	-	O	Sender address (SADR).
			SNDLAD	1..1	String	1/70	-	M	Logical address of sender. <sup>7</sup>
			RCVPOR	0..1	String	0/10	-	O	SAP receiver port. <sup>8</sup>

<sup>1</sup>X<sup>2</sup>MBGMCR03<sup>3</sup>MBGMCR<sup>4</sup>SAPD11<sup>5</sup>LS<sup>6</sup>ERPCLNT302<sup>7</sup>FROS<sup>8</sup>TRACELINK

Data Element				Occurs	Format	Length	Enum	Req	Description
			RCVPRT	0..1	String	0/2	-	0	Partner type of receiver. <sup>1</sup>
			RCVPFC	0..1	String	0/2	-	0	Partner function of receiver. <sup>2</sup>
			RCVPRN	0..1	String	0/10	-	0	Partner number of receiver. <sup>3</sup>
			RCVSAD	0..1	String	0/21	-	0	Receiver address (SADR).
			RCVLAD	1..1	String	1/70	-	M	Logical address of receiver. <sup>4</sup>
			CREDAT	1..1	String	1/8	-	M	Date IDoc was created in format YYYYMMDD. <sup>5</sup>
			CRETIM	1..1	String	1/6	-	M	Time IDoc was created in format HHMMSS. <sup>6</sup>
			REFINT	0..1	String	0/14	-	0	Reference to interchange file.
			REFGRP	0..1	String	0/14	-	0	Reference to message group.
			REFMES	0..1	String	0/14	-	0	Reference to message.
			ARCKEY	0..1	String	0/70	-	0	EDI archive key.
			SERIAL	0..1	String	0/20	-	0	EDI/ALE: Serialization field.
			E1MBGMCR	0..1	-	-	-	0	Goods movement header segment. <sup>7</sup>
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>8</sup>
			TESTRUN	0..1	String	0/1	-	0	Switch to Simulation Session.
			E1BP2017_GM_HEAD_01	0..1	-	-	-	0	Material document header segment.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>9</sup>

<sup>1</sup>LS<sup>2</sup>LS<sup>3</sup>TRACELINK<sup>4</sup>0000038141<sup>5</sup>20120710<sup>6</sup>172850<sup>7</sup>1<sup>8</sup>1<sup>9</sup>1

Data Element				Occurs	Format	Length	Enum	Req	Description
			PSTNG_DATE	0..1	String	0/8	-	0	Date the material document posts to finance. <sup>1</sup>
			DOC_DATE	1..1	String	1/8	-	M	Document date - date inventory is adjusted. <sup>2</sup>
			REF_DOC_NO	0..1	String	0/16	-	0	Reference Document Number. <sup>3</sup>
			BILL_OF_LADING	0..1	String	0/16	-	0	Bill of lading at goods receipt. <sup>4</sup>
			GR_GI_SLIP_NO	0..1	String	0/10	-	0	Goods Receipt/Issue Slip Number.
			PR_UNAME	0..1	String	0/12	-	0	User Name. <sup>5</sup>
			HEADER_TXT	0..1	String	0/25	-	0	Document Header Text. <sup>6</sup>
			VER_GR_GI_SLIP	0..1	String	0/1	-	0	Version for printing GR/GI slip.
			EXT_WMS	0..1	String	0/1	-	0	Control posting for external WMS (Warehouse Management System).
			REF_DOC_NO_LONG	0..1	String	0/35	-	0	Reference Document Number.
			BILL_OF_LADING_LONG	0..1	String	0/35	-	0	Bill of Lading Number in GR.
			BAR_CODE	0..1	String	0/40	-	0	Bar code entry.
			E1BP2017_GM_CODE	0..1	-	-	-	0	GM code linking to inventory posting transaction in table T158G.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>7</sup>
			GM_CODE	0..1	String	0/2	-	0	GM code links to inventory transaction. <sup>8</sup>
			_-SPE_-E1BP2017_GM_REF_EWM	0..1	-	-	-	0	Material document EWM reference.

<sup>1</sup>20150527<sup>2</sup>20150527<sup>3</sup>4901365532<sup>4</sup>1234xYz<sup>5</sup>AWESOME<sup>6</sup>Material Document<sup>7</sup>1<sup>8</sup>04

Data Element				Occurs	Format	Length	Enum	Req	Description
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			REF_DOC_EWM	0..1	String	0/16	-	O	Material document number in EWM (external WMS).
			LOGSYS	0..1	String	0/10	-	O	Logical system name for external WM material document.
			GTS_SCRAP_NO	0..1	String	0/35	-	O	Customs reference number for scrapping.
			E1BP2017_GM_ITEM_CREATE	0..*	-	-	-	O	Create goods movement (material document) item.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
			MATERIAL	1..1	String	1/18	-	M	Material Number. <sup>3</sup>
			PLANT	0..1	String	0/4	-	O	Plant. <sup>4</sup>
			STGE_LOC	0..1	String	0/4	-	O	Storage Location. <sup>5</sup>
			BATCH	1..1	String	1/10	-	M	Batch Number. <sup>6</sup>
			MOVE_TYPE	1..1	String	1/3	<a href="#">InventoryAdjustmentType</a>	M	SAP movement type for inventory adjustment. <sup>7</sup>
			STCK_TYPE	0..1	String	0/1	<a href="#">StockTypeIndicator</a>	O	Stock Type.
			SPEC_STOCK	0..1	String	0/1	<a href="#">SpecialStockIndicator</a>	O	Special Stock Indicator.
			VENDOR	0..1	String	0/10	-	O	Vendor Account Number. <sup>8</sup>
			CUSTOMER	0..1	String	0/10	-	O	Account Number of Customer. <sup>9</sup>
			SALES_ORD	0..1	String	0/10	-	O	Sales Order Number.

<sup>1</sup><sup>2</sup><sup>3</sup>FRB674908<sup>4</sup>FROS<sup>5</sup>ED01<sup>6</sup>0001106639<sup>7</sup>551<sup>8</sup>CH01<sup>9</sup>0001013694

Data Element				Occurs	Format	Length	Enum	Req	Description
			S_ORD_ITEM	0..1	String	0/6	-	0	Item Number in Sales Order.
			SCHED_LINE	0..1	String	0/4	-	0	Delivery Schedule for Sales Order.
			ENTRY_QNT	1..1	String	1/15	-	M	Quantity in Unit of Entry. <sup>1</sup>
			ENTRY_UOM	1..1	String	1/3	UnitOfMeasure	M	Unit of Entry. <sup>2</sup>
			ENTRY_UOM_ISO	0..1	String	0/3	-	0	ISO code for unit of entry.
			PO_PR_QNT	0..1	String	0/15	-	0	Quantity in Purchase Order (PO) Price Unit.
			ORDERPR_UN	0..1	String	0/3	-	0	Order Price Unit (Purchasing).
			ORDERPR_UN_ISO	0..1	String	0/3	-	0	ISO code for unit of PO quantity.
			PO_NUMBER	0..1	String	0/10	-	0	PO Number. <sup>3</sup>
			PO_ITEM	0..1	String	0/5	-	0	Item Number of Purchasing Document. <sup>4</sup>
			SHIPPING	0..1	String	0/2	-	0	Shipping Instructions.
			COMP_SHIP	0..1	String	0/2	-	0	Compliance with Shipping Instructions.
			NO_MORE_GR	0..1	String	0/1	-	0	"Delivery Completed" Indicator.
			ITEM_TEXT	0..1	String	0/50	-	0	Material text description. <sup>5</sup>
			GR_RCPT	0..1	String	0/12	-	0	Goods Recipient/Ship-To Party. <sup>6</sup>
			UNLOAD_PT	0..1	String	0/25	-	0	Unloading Point.
			COSTCENTER	0..1	String	0/10	-	0	Cost Center.
			ORDERID	0..1	String	0/12	-	0	Work Order (Production) Number. <sup>7</sup>

<sup>1</sup>22590.000<sup>2</sup>U2<sup>3</sup>4500176884<sup>4</sup>00010<sup>5</sup>Item text<sup>6</sup>987695<sup>7</sup>000001003933

Data Element				Occurs	Format	Length	Enum	Req	Description
			ORDER_ITNO	0..1	String	0/4	-	0	Work Order (Production) Item Number.
			CALC_MOTIVE	0..1	String	0/2	-	0	Accounting indicator.
			ASSET_NO	0..1	String	0/12	-	0	Main Asset Number.
			RESERV_NO	0..1	String	0/10	-	0	Reservation number.
			RES_ITEM	0..1	String	0/4	-	0	Reservation Item Number.
			RES_TYPE	0..1	String	0/1	-	0	Reservation type.
			WITHDRAWN	0..1	String	0/1	-	0	Final issue for this reservation.
			MOVE_MAT	0..1	String	0/18	-	0	Receiving/Issuing Material.
			MOVE_PLANT	0..1	String	0/4	-	0	Receiving/Issuing Plant.
			MOVE_STLOC	0..1	String	0/4	-	0	Receiving/Issuing Storage Location.
			MOVE_BATCH	0..1	String	0/10	-	0	Receiving/Issuing Batch.
			MOVE_VAL_TYPE	0..1	String	0/10	-	0	Valuation of type of transfer batch.
			MVT_IND	0..1	String	0/1	MovementIndicator	0	Movement Indicator.
			MOVE_REAS	0..1	String	0/4	ReasonCode	0	Reason for movement. <sup>1</sup>
			RL_EST_KEY	0..1	String	0/8	-	0	Internal key for real estate object.
			REF_DATE	0..1	String	0/8	-	0	Reference date.
			COST_OBJ	0..1	String	0/12	-	0	Cost object.
			PROFIT_SEGM_NO	0..1	String	0/10	-	0	Profitability segment number.
			WBS_ELEM	0..1	String	0/24	-	0	Work breakdown structure element (WBS).
			NETWORK	0..1	String	0/12	-	0	Network number for account assignment.
			ACTIVITY	0..1	String	0/10	-	0	Operation/Activity number.

<sup>1</sup>0103

Data Element				Occurs	Format	Length	Enum	Req	Description
			PART_ACCT	0..1	String	0/10	-	0	Partner account number.
			AMOUNT_LC	0..1	String	0/25	-	0	Amount in local currency.
			AMOUNT_SV	0..1	String	0/25	-	0	Externally valued sales amount in local currency.
			REF_DOC_YR	0..1	String	0/4	-	0	Reference document fiscal year.
			REF_DOC	0..1	String	0/10	-	0	Reference document number.
			REF_DOC_IT	0..1	String	0/4	-	0	Reference document item number.
			EXPIRYDATE	0..1	String	0/8	-	0	Shelf-life expiration or best before date. <sup>1</sup>
			PROD_DATE	0..1	String	0/8	-	0	Date of manufacture. <sup>2</sup>
			FUND	0..1	String	0/10	-	0	Fund.
			FUNDS_CTR	0..1	String	0/16	-	0	Funds center.
			CMMT_ITEM	0..1	String	0/14	-	0	Commitment item.
			VAL_SALES_ORD	0..1	String	0/10	-	0	Sales Order Number of valuated sales order stock.
			VAL_S_ORD_ITEM	0..1	String	0/6	-	0	Sales Order line item number of valuated sales order stock.
			VAL_WBS_ELEM	0..1	String	0/24	-	0	Work breakdown structure element (WBS).
			GL_ACCOUNT	0..1	String	0/10	-	0	GL Account number.
			IND_PROPOSE_QUANX	0..1	String	0/1	-	0	Propose quantities.
			XSTOB	0..1	String	0/1	-	0	Use reversal type movement indicator.
			EAN_UPC	0..1	String	0/18	-	0	International article number (EAN/UPC).
			DELIV_NUMB_TO_SEARCH	0..1	String	0/10	-	0	Delivery number.
			DELIV_ITEM_TO_SEARCH	0..1	String	0/6	-	0	Delivery Item.

<sup>1</sup>20160411<sup>2</sup>20150411

Data Element				Occurs	Format	Length	Enum	Req	Description
			SERIALNO_AUTO_NUMBERASSIGNMENT	0..1	String	0/1	-	0	Create serial number automatically.
			VENDRBATCH	0..1	String	0/15	-	0	Vendor Batch Number. <sup>1</sup>
			STGE_TYPE	0..1	String	0/3	-	0	Storage Type.
			STGE_BIN	0..1	String	0/10	-	0	Storage Bin.
			SU_PL_STCK_1	0..1	String	0/4	-	0	Number of storage units to be placed into storage.
			ST_UN_QTY_1	0..1	String	0/15	-	0	Quantity per storage unit to be placed into stock in alternate UOM.
			ST_UN_QTY_1_ISO	0..1	String	0/3	-	0	ISO code for unit of measure.
			UNITTYPE_1	0..1	String	0/3	-	0	Storage unit type.
			SU_PL_STCK_2	0..1	String	0/4	-	0	Number of storage units to be placed into storage.
			ST_UN_QTY_2	0..1	String	0/15	-	0	Quantity per storage unit to be placed into stock in alternate UOM.
			ST_UN_QTY_2_ISO	0..1	String	0/3	-	0	ISO code for unit of measure.
			UNITTYPE_2	0..1	String	0/3	-	0	Storage unit type.
			STGE_TYPE_PC	0..1	String	0/3	-	0	Storage Type for transfer posting.
			STGE_BIN_PC	0..1	String	0/10	-	0	Storage Bin for transfer posting.
			NO_PST_CHGNT	0..1	String	0/1	-	0	Indicator: do not create posting change notice.
			GR_NUMBER	0..1	String	0/10	-	0	Goods Receipt number.
			STGE_TYPE_ST	0..1	String	0/3	-	0	Storage Type for stock transfer.
			STGE_BIN_ST	0..1	String	0/10	-	0	Storage Bin for stock transfer.
			MATDOC_TR_CANCEL	0..1	String	0/10	-	0	Material document number of transfer requirement

<sup>1</sup>6024593

Data Element				Occurs	Format	Length	Enum	Req	Description	
									to be canceled.	
				MATITEM_TR_CANCEL	0..1	String	0/4	-	0	Material document item of transfer requirement to be canceled.
				MATYEAR_TR_CANCEL	0..1	String	0/4	-	0	Material document year of transfer requirement to be canceled.
				NO_TRANSFER_REQ	0..1	String	0/1	-	0	Indicator: no transfer requirement created.
				CO_BUSPROC	0..1	String	0/12	-	0	Business process.
				ACTTYPE	0..1	String	0/6	-	0	Activity type.
				SUPPL_VEND	0..1	String	0/10	-	0	Supplying vendor.
				MATERIAL_EXTERNAL	0..1	String	0/40	-	0	External material number.
				MATERIAL_GUID	0..1	String	0/32	-	0	External GUID for MATERIAL field.
				MATERIAL_VERSION	0..1	String	0/10	-	0	Version number for MATERIAL field.
				MOVE_MAT_EXTERNAL	0..1	String	0/40	-	0	Long material number for MOVE_MAT field.
				MOVE_MAT_GUID	0..1	String	0/32	-	0	External GUID for MOVE_MAT field.
				MOVE_MAT_VERSION	0..1	String	0/10	-	0	Version number for MOVE_MAT field.
				FUNC_AREA	0..1	String	0/4	-	0	Functional area.
				TR_PART_BA	0..1	String	0/4	-	0	Trading partner's business area.
				PAR_COMPCO	0..1	String	0/4	-	0	Clearing company code.
				E1BP2017_GM_ITEM_CREATE1	0..1	-	-	-	0	Create goods movement (material document) item - additional fields.
				@SEGMENT	1..1	String	0/*	-	M	Beginning of segment attribute. <sup>1</sup>
				DELIV_NUMB	0..1	String	0/10	-	0	Delivery number.

<sup>1</sup>

Data Element					Occurs	Format	Length	Enum	Req	Description
				DELIV_ITEM	0..1	String	0/6	-	0	Delivery Item.
				NB_SLIPS	0..1	String	0/3	-	0	Number of GR/GI slips to be printed.
				NB_SLIP SX	0..1	String	0/1	-	0	Updated info in related user data field.
				GR_RCPTX	0..1	String	0/1	-	0	Updated info in related user data field.
				UNLOAD_PTX	0..1	String	0/1	-	0	Updated info in related user data field.
				SPEC_MVMT	0..1	String	0/1	-	0	Special movement indicator for warehouse management.
				GRANT_NBR	0..1	String	0/20	-	0	Grant number.
				CMMT_ITEM_LONG	0..1	String	0/24	-	0	Commitment item.
				FUNC_AREA_LONG	0..1	String	0/16	-	0	Functional area.
				LINE_ID	0..1	String	0/6	-	0	Unique identification of document line.
				PARENT_ID	0..1	String	0/6	-	0	Identifier of immediately superior line.
				LINE_DEPTH	0..1	String	0/2	-	0	Hierarchy level of line in document.
				QUANTITY	0..1	String	0/15	-	0	Quantity.
				BASE_UOM	0..1	String	1/3	-	0	Base unit of entry.
				LONGNUM	0..1	String	0/40	-	0	Smart number.
				BUDGET_PERIOD	0..1	String	0/10	-	0	FM: budget period.
				E1BP2017_GM_SERIALNUMBER	0..*	-	-	-	0	Create material document serial number.
				@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>

<sup>1</sup>

Data Element				Occurs	Format	Length	Enum	Req	Description
			MATDOC_ITM	0..1	String	0/4	-	0	Material document item number.
			SERIALNO	0..1	String	0/18	-	0	Serial number.
			UII	0..1	String	0/72	-	0	Unique item identifier.
			_-SPE_-E1BP2017_SERVICEPART_D	0..*	-	-	-	0	Service parts data.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			LINE_ID	0..1	String	0/6	-	0	Unique identification of document line.
			RET_AUTH_NUMBER	0..1	String	0/20	-	0	Return material authorization number.
			DELIV_NUMBER	0..1	String	0/10	-	0	Delivery number.
			DELIV_ITEM	0..1	String	0/6	-	0	Delivery Item.
			HU_NUMBER	0..1	String	0/20	-	0	External handling unit identification.
			INSPOUT_GUID	0..1	String	0/32	-	0	Inspection outcome: stock GUID set by external WMS.
			EVENT	0..1	String	0/10	-	0	Logical time.
			DATE	0..1	String	0/8	-	0	Date.
			TIME	0..1	String	0/6	-	0	Time.
			ZONLO	0..1	String	0/6	-	0	Time zone of current user.
			TIMESTAMP	0..1	String	0/16	-	0	Start time of transaction (UTC timestamp).
			SCRAP_INDICATOR	0..1	String	0/1	-	0	Scrap indicator for EWM processing.
			KEEP_QUANTITY	0..1	String	0/15	-	0	Retention quantity for scrap, EWM process.
			GTS_STOCK_TYPE	0..1	String	0/1	-	0	GTS Stock type.
			KEEP_QUANTITY_	0..1	String	0/1	-	0	Quantity conversion not necessary flag.

<sup>1</sup>

Data Element				Occurs	Format	Length	Enum	Req	Description
			CONVERSION						
			ZERO_QUANTITY	0...1	String	0/1	-	0	Allow posting of goods movement in spite of zero quantity.
			NUMERATOR	0...1	String	0/6	-	0	Numerator factor for conversion of sales quantity into SKU.
			DENOMINATR	0...1	String	0/6	-	0	Denominator (divisor) for conversion of sales quantity into SKU.
			E1BPPAREX	0...*	-	-	-	0	Extension in/Extension out structure for BAPI.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			STRUCTURE	0...1	String	0/30	-	0	Structure name of BAPI table extension. Used to identify data element value in VALUEPART1. Valid value: ZBATCH.
			VALUEPART1	0...1	String	0/240	-	0	Data part of BAPI extension parameter. Used to store batch number that is longer than 10 characters when STRUCTURE = ZBATCH. When populated, E1BP2017_GM_ITEM_CREATE-BATCH above should NOT be populated. <sup>2</sup>
			VALUEPART2	0...1	String	0/240	-	0	Data part of BAPI extension parameter.
			VALUEPART3	0...1	String	0/240	-	0	Data part of BAPI extension parameter.
			VALUEPART4	0...1	String	0/240	-	0	Data part of BAPI extension parameter.

<sup>1</sup><sup>2</sup>SP03-23985873-34

# Inventory Adjustments Errors (IDoc)

The following errors may be encountered with the Inventory Adjustments message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
CREDAT	File creation date is required !!!	The error occurs if the source is empty or null.
CRETIM	File creation time is required !!!	The error occurs if the source is empty or null.
MATERIAL	CustomerMaterial is required !!!	The error occurs if the source is empty or null.
BATCH	CustomerBatchNumber is required !!!	The error occurs if the source is empty or null.
ENTRY_QNT	Quantity is required !!!	The error occurs if the source is empty or null.
ENTRY_UOM	Unit of Measure required when UnitOfMeasure present !!!	The error occurs if quantity present but source unit of measure is null or empty OR if source is not from valid enum list.
MOVE_TYPE	Movement type code is required !!!	The error occurs if the source is empty or null, or is not a valid value from the enumeration list.
VALUEPART1	Customer batch number is required !!!	The error occurs if source is null or empty AND source E1BP2017_GM_ITEM_CREATE/BATCH is null or empty.
<b>Class 2 Errors</b>		
AuthenticationId   <b>authid</b>	auth ID is required, must be a company admin for the PL <plid>.	The error occurs if a non-administrator of the application link attempts to make an inventory adjustment.
ProcessLinkId   <b>plid</b>	Process Link ID is required.	The error occurs if an adjustment is attempted without a specified application link.
Received From Company	Received from company is required for processing canonical inventory (ieid): < ie.id>.	The error occurs if the "received from" company is not specified in the inventory adjustment.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Adjustments Message Example (IDoc)

The following is a fully populated Inventory Adjustments example:

```
<?xml version="1.0" encoding="UTF-8"?>
<MBGMCR03>
  <IDOC BEGIN="1">
    <EDI_DC40 SEGMENT="1">
      <TABNAM>EDI_DC40</TABNAM>
      <MANDT>001</MANDT>
      <DOCNUM>0000000000619827</DOCNUM>
      <DOCREL>700</DOCREL>
      <STATUS>30</STATUS>
      <DIRECT>1</DIRECT>
      <IDOCTYP>MBGMCR03</IDOCTYP>
      <MESTYP>MBGMCR</MESTYP>
      <SNDPOR>SAPD11</SNDPOR>
      <SNDPRT>LS</SNDPRT>
      <SN DPRN>ROVI</SN DPRN>
      <SN DLAD>FROS</SN DLAD>
      <RCVPOR>TRACELINK</RCVPOR>
      <RCVPRT>LS</RCVPRT>
      <RCVPFC>LS</RCVPFC>
      <RCVPRN>TRACELINK</RCVPRN>
      <RCVLAD>0000038141</RCVLAD>
      <CREDAT>20120710</CREDAT>
      <CRETIM>172850</CRETIM>
      <SERIAL>20120710172850</SERIAL>
    </EDI_DC40>
    <E1MBGMCR SEGMENT="1">
      <E1BP2017_GM_HEAD_01 SEGMENT="1">
        <PSTNG_DATE>20120527</PSTNG_DATE>
        <DOC_DATE>20120527</DOC_DATE>
      </E1BP2017_GM_HEAD_01>
      <E1BP2017_GM_CODE SEGMENT="1">
        <GM_CODE>04</GM_CODE>
      </E1BP2017_GM_CODE>
      <E1BP2017_GM_ITEM_CREATE SEGMENT="1">
```

```
<MATERIAL>FRB674908</MATERIAL>  
<PLANT>1077</PLANT>  
<STGE_LOC>1002</STGE_LOC>  
<BATCH>0001106639</BATCH>  
<MOVE_TYPE>551</MOVE_TYPE>  
<ENTRY_QNT>22590.000</ENTRY_QNT>  
<ENTRY_UOM>EA</ENTRY_UOM>  
<MOVE_REAS>0001</MOVE_REAS>  
</E1BP2017_GM_ITEM_CREATE>  
</E1MBGMCR>  
</IDOC>  
</MBGMCR03>
```

# Inventory Adjustments Reversal Overview

The Inventory Adjustments Reversal message informs the Pharmaceutical Manufacturer of a reversal of inventory adjustment previously communicated by a CMO.

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### IDoc Format

- [Inventory Adjustments Reversal Guidelines](#)
- [Inventory Adjustments Reversal Errors](#)
- [Inventory Adjustments Reversal Message Example](#)

### XML Format

- [Inventory Adjustments Reversal Guidelines](#)
- [Inventory Adjustments Reversal Errors](#)
- [Inventory Adjustments Reversal Message Example](#)

# Inventory Adjustments Reversal Guidelines (IDoc)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_ADJUSTMENT\_REVERSAL

**Info Exchange Display Name:** Inventory Adjustment Reversal

Data Element		Occurs	Format	Length	Enum	Req	Description
MBGMCR03		1..1	-	-	-	M	XML IDoc MBGMCR root element.
	IDOC	1..1	-	-	-	M	IDoc root.
	@BEGIN	1..1	String	0/*	-	M	Begin of message attribute. <sup>1</sup>
	EDI_DC40	1..1	-	-	-	M	IDoc control record.
	@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
	TABNAM	1..1	String	0/*	-	M	IDoc table name. <sup>3</sup>
	MANDT	0..1	String	0/3	-	O	Client. <sup>4</sup>
	DOCNUM	1..1	String	1/16	-	M	IDoc number. <sup>5</sup>
	DOCREL	0..1	String	0/4	-	O	IDoc version release number. <sup>6</sup>
	STATUS	0..1	String	0/2	-	O	Current IDoc processing status. <sup>7</sup>
	DIRECT	0..1	String	0/*	-	O	Direction. <sup>8</sup>
	OUTMOD	0..1	String	0/1	-	O	Output mode. <sup>9</sup>

<sup>1</sup>

<sup>2</sup>

<sup>3</sup>EDI\_DC40

<sup>4</sup>001

<sup>5</sup>00000000000619827

<sup>6</sup>700

<sup>7</sup>30

<sup>8</sup>1

<sup>9</sup>2

Data Element				Occurs	Format	Length	Enum	Req	Description
			EXPRSS	0..1	String	0/1	-	O	Overriding in inbound processing.
			TEST	1..1	String	1/1	UsageIndicator	M	Test flag. <sup>1</sup>
			IDOCTYP	1..1	String	1/30	-	M	IDoc basic type. <sup>2</sup>
			CIMTYP	0..1	String	0/*	-	O	Name of extension type.
			MESTYP	1..1	String	1/30	-	M	Logical message type. <sup>3</sup>
			MESCOD	0..1	String	0/3	-	O	Logical message code.
			MESFCT	0..1	String	0/3	-	O	Logical message function.
			STD	0..1	String	0/1	-	O	EDI standard.
			STDVRS	0..1	String	0/6	-	O	Version of EDI standard.
			STDMES	0..1	String	0/6	-	O	EDI message type.
			SNDPOR	0..1	String	0/10	-	O	Sender port (SAP System, EDI subsystem). <sup>4</sup>
			SNDPRT	0..1	String	0/2	-	O	Partner type of sender. <sup>5</sup>
			SNDPFC	0..1	String	0/2	-	O	Partner function of sender.
			SNDPRN	1..1	String	1/10	-	M	Partner number of sender. <sup>6</sup>
			SNDSAD	0..1	String	0/21	-	O	Sender address (SADR).
			SNDLAD	1..1	String	1/70	-	M	Logical address of sender. <sup>7</sup>
			RCVPOR	0..1	String	0/10	-	O	SAP receiver port. <sup>8</sup>

<sup>1</sup>X<sup>2</sup>MBGMCR03<sup>3</sup>MBGMCR<sup>4</sup>SAPD11<sup>5</sup>LS<sup>6</sup>ERPCLNT302<sup>7</sup>FROS<sup>8</sup>TRACELINK

Data Element				Occurs	Format	Length	Enum	Req	Description
			RCVPRT	0..1	String	0/2	-	0	Partner type of receiver. <sup>1</sup>
			RCVPFC	0..1	String	0/2	-	0	Partner function of receiver. <sup>2</sup>
			RCVPRN	0..1	String	0/10	-	0	Partner number of receiver. <sup>3</sup>
			RCVSAD	0..1	String	0/21	-	0	Receiver address (SADR).
			RCVLAD	1..1	String	1/70	-	M	Logical address of receiver. <sup>4</sup>
			CREDAT	1..1	String	1/8	-	M	Date IDoc was created in format YYYYMMDD. <sup>5</sup>
			CRETIM	1..1	String	1/6	-	M	Time IDoc was created in format HHMMSS. <sup>6</sup>
			REFINT	0..1	String	0/14	-	0	Reference to interchange file.
			REFGRP	0..1	String	0/14	-	0	Reference to message group.
			REFMES	0..1	String	0/14	-	0	Reference to message.
			ARCKEY	0..1	String	0/70	-	0	EDI archive key.
			SERIAL	0..1	String	0/20	-	0	EDI/ALE: Serialization field.
			E1MBGMCR	0..1	-	-	-	0	Goods movement header segment. <sup>7</sup>
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>8</sup>
			TESTRUN	0..1	String	0/1	-	0	Switch to Simulation Session.
			E1BP2017_GM_HEAD_01	0..1	-	-	-	0	Material document header segment.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>9</sup>

<sup>1</sup>LS<sup>2</sup>LS<sup>3</sup>TRACELINK<sup>4</sup>0000038141<sup>5</sup>20120710<sup>6</sup>172850<sup>7</sup>1<sup>8</sup>1<sup>9</sup>1

Data Element				Occurs	Format	Length	Enum	Req	Description
			PSTNG_DATE	0..1	String	0/8	-	0	Date the material document posts to finance. <sup>1</sup>
			DOC_DATE	1..1	String	1/8	-	M	Document date - date inventory is adjusted. <sup>2</sup>
			REF_DOC_NO	0..1	String	0/16	-	0	Reference Document Number. <sup>3</sup>
			BILL_OF_LADING	0..1	String	0/16	-	0	Bill of lading at goods receipt. <sup>4</sup>
			GR_GI_SLIP_NO	0..1	String	0/10	-	0	Goods Receipt/Issue Slip Number.
			PR_UNAME	0..1	String	0/12	-	0	User Name. <sup>5</sup>
			HEADER_TXT	0..1	String	0/25	-	0	Document Header Text. <sup>6</sup>
			VER_GR_GI_SLIP	0..1	String	0/1	-	0	Version for printing GR/GI slip.
			EXT_WMS	0..1	String	0/1	-	0	Control posting for external WMS (Warehouse Mgmt System).
			REF_DOC_NO_LONG	0..1	String	0/35	-	0	Reference Document Number.
			BILL_OF_LADING_LONG	0..1	String	0/35	-	0	Bill of Lading Number in GR.
			BAR_CODE	0..1	String	0/40	-	0	Bar code entry.
			E1BP2017_GM_CODE	0..1	-	-	-	0	GM code linking to inventory posting transaction in table T158G.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>7</sup>
			GM_CODE	0..1	String	0/2	-	0	GM code links to inventory transaction. <sup>8</sup>
			_-SPE_-E1BP2017_GM_REF_EWM	0..1	-	-	-	0	Material document EWM reference.

<sup>1</sup>20150527<sup>2</sup>20150527<sup>3</sup>4901365532<sup>4</sup>1234xYz<sup>5</sup>AWESOME<sup>6</sup>Material Document<sup>7</sup>1<sup>8</sup>04

Data Element				Occurs	Format	Length	Enum	Req	Description
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			REF_DOC_EWM	0..1	String	0/16	-	O	Material document number in EWM (external WMS).
			LOGSYS	0..1	String	0/10	-	O	Logical system name for external WM material document.
			GTS_SCRAP_NO	0..1	String	0/35	-	O	Customs reference number for scrapping.
			E1BP2017_GM_ITEM_CREATE	0..*	-	-	-	O	Create goods movement (material document) item.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
			MATERIAL	1..1	String	1/18	-	M	Material Number. <sup>3</sup>
			PLANT	0..1	String	0/4	-	O	Plant. <sup>4</sup>
			STGE_LOC	0..1	String	0/4	-	O	Storage Location. <sup>5</sup>
			BATCH	1..1	String	1/10	-	M	Batch Number. <sup>6</sup>
			MOVE_TYPE	1..1	String	1/3	<a href="#">InventoryAdjustmentType</a>	M	SAP movement type for inventory adjustment. <sup>7</sup>
			STCK_TYPE	0..1	String	0/1	<a href="#">StockTypeIndicator</a>	O	Stock Type.
			SPEC_STOCK	0..1	String	0/1	<a href="#">SpecialStockIndicator</a>	O	Special Stock Indicator.
			VENDOR	0..1	String	0/10	-	O	Vendor Account Number. <sup>8</sup>
			CUSTOMER	0..1	String	0/10	-	O	Account Number of Customer. <sup>9</sup>
			SALES_ORD	0..1	String	0/10	-	O	Sales Order Number.

<sup>1</sup><sup>2</sup><sup>3</sup>FRB674908<sup>4</sup>FROS<sup>5</sup>ED01<sup>6</sup>0001106639<sup>7</sup>551<sup>8</sup>CH01<sup>9</sup>0001013694

Data Element				Occurs	Format	Length	Enum	Req	Description
			S_ORD_ITEM	0..1	String	0/6	-	0	Item Number in Sales Order.
			SCHED_LINE	0..1	String	0/4	-	0	Delivery Schedule for Sales Order.
			ENTRY_QNT	1..1	String	1/15	-	M	Quantity in Unit of Entry. <sup>1</sup>
			ENTRY_UOM	1..1	String	1/3	UnitOfMeasure	M	Unit of Entry. <sup>2</sup>
			ENTRY_UOM_ISO	0..1	String	0/3	-	0	ISO code for unit of entry.
			PO_PR_QNT	0..1	String	0/15	-	0	Quantity in Purchase Order (PO) Price Unit.
			ORDERPR_UN	0..1	String	0/3	-	0	Order Price Unit (Purchasing).
			ORDERPR_UN_ISO	0..1	String	0/3	-	0	ISO code for unit of PO quantity.
			PO_NUMBER	0..1	String	0/10	-	0	PO Number. <sup>3</sup>
			PO_ITEM	0..1	String	0/5	-	0	Item Number of Purchasing Document. <sup>4</sup>
			SHIPPING	0..1	String	0/2	-	0	Shipping Instructions.
			COMP_SHIP	0..1	String	0/2	-	0	Compliance with Shipping Instructions.
			NO_MORE_GR	0..1	String	0/1	-	0	"Delivery Completed" Indicator.
			ITEM_TEXT	0..1	String	0/50	-	0	Material text description. <sup>5</sup>
			GR_RCPT	0..1	String	0/12	-	0	Goods Recipient/Ship-To Party. <sup>6</sup>
			UNLOAD_PT	0..1	String	0/25	-	0	Unloading Point.
			COSTCENTER	0..1	String	0/10	-	0	Cost Center.
			ORDERID	0..1	String	0/12	-	0	Work Order (Production) Number. <sup>7</sup>

<sup>1</sup>22590.000<sup>2</sup>U2<sup>3</sup>4500176884<sup>4</sup>00010<sup>5</sup>Item text<sup>6</sup>987695<sup>7</sup>000001003933

Data Element				Occurs	Format	Length	Enum	Req	Description
			ORDER_ITNO	0..1	String	0/4	-	0	Work Order (Production) Item Number.
			CALC_MOTIVE	0..1	String	0/2	-	0	Accounting indicator.
			ASSET_NO	0..1	String	0/12	-	0	Main Asset Number.
			RESERV_NO	0..1	String	0/10	-	0	Reservation number.
			RES_ITEM	0..1	String	0/4	-	0	Reservation Item Number.
			RES_TYPE	0..1	String	0/1	-	0	Reservation type.
			WITHDRAWN	0..1	String	0/1	-	0	Final issue for this reservation.
			MOVE_MAT	0..1	String	0/18	-	0	Receiving/Issuing Material.
			MOVE_PLANT	0..1	String	0/4	-	0	Receiving/Issuing Plant.
			MOVE_STLOC	0..1	String	0/4	-	0	Receiving/Issuing Storage Location.
			MOVE_BATCH	0..1	String	0/10	-	0	Receiving/Issuing Batch.
			MOVE_VAL_TYPE	0..1	String	0/10	-	0	Valuation of type of transfer batch.
			MVT_IND	0..1	String	0/1	MovementIndicator	0	Movement Indicator.
			MOVE_REAS	0..1	String	0/4	ReasonCode	0	Reason for movement. <sup>1</sup>
			RL_EST_KEY	0..1	String	0/8	-	0	Internal key for real estate object.
			REF_DATE	0..1	String	0/8	-	0	Reference date.
			COST_OBJ	0..1	String	0/12	-	0	Cost object.
			PROFIT_SEGM_NO	0..1	String	0/10	-	0	Profitability segment number.
			WBS_ELEM	0..1	String	0/24	-	0	Work breakdown structure element (WBS).
			NETWORK	0..1	String	0/12	-	0	Network number for account assignment.
			ACTIVITY	0..1	String	0/10	-	0	Operation/Activity number.

<sup>1</sup>0103

Data Element				Occurs	Format	Length	Enum	Req	Description
			PART_ACCT	0..1	String	0/10	-	0	Partner account number.
			AMOUNT_LC	0..1	String	0/25	-	0	Amount in local currency.
			AMOUNT_SV	0..1	String	0/25	-	0	Externally valued sales amount in local currency.
			REF_DOC_YR	0..1	String	0/4	-	0	Reference document fiscal year.
			REF_DOC	0..1	String	0/10	-	0	Reference document number.
			REF_DOC_IT	0..1	String	0/4	-	0	Reference document item number.
			EXPIRYDATE	0..1	String	0/8	-	0	Shelf-life expiration or best before date. <sup>1</sup>
			PROD_DATE	0..1	String	0/8	-	0	Date of manufacture. <sup>2</sup>
			FUND	0..1	String	0/10	-	0	Fund.
			FUNDS_CTR	0..1	String	0/16	-	0	Funds center.
			CMMT_ITEM	0..1	String	0/14	-	0	Commitment item.
			VAL_SALES_ORD	0..1	String	0/10	-	0	Sales Order Number of valuated sales order stock.
			VAL_S_ORD_ITEM	0..1	String	0/6	-	0	Sales Order line item number of valuated sales order stock.
			VAL_WBS_ELEM	0..1	String	0/24	-	0	Work breakdown structure element (WBS).
			GL_ACCOUNT	0..1	String	0/10	-	0	GL Account number.
			IND_PROPOSE_QUANX	0..1	String	0/1	-	0	Propose quantities.
			XSTOB	0..1	String	0/1	-	0	Use reversal type movement indicator.
			EAN_UPC	0..1	String	0/18	-	0	International article number (EAN/UPC).
			DELIV_NUMB_TO_SEARCH	0..1	String	0/10	-	0	Delivery number.
			DELIV_ITEM_TO_SEARCH	0..1	String	0/6	-	0	Delivery Item.

<sup>1</sup>20160411<sup>2</sup>20150411

Data Element				Occurs	Format	Length	Enum	Req	Description
			SERIALNO_AUTO_NUMBERASSIGNMENT	0..1	String	0/1	-	0	Create serial number automatically.
			VENDRBATCH	0..1	String	0/15	-	0	Vendor Batch Number. <sup>1</sup>
			STGE_TYPE	0..1	String	0/3	-	0	Storage Type.
			STGE_BIN	0..1	String	0/10	-	0	Storage Bin.
			SU_PL_STCK_1	0..1	String	0/4	-	0	Number of storage units to be placed into storage.
			ST_UN_QTY_1	0..1	String	0/15	-	0	Quantity per storage unit to be placed into stock in alternate UOM.
			ST_UN_QTY_1_ISO	0..1	String	0/3	-	0	ISO code for unit of measure.
			UNITTYPE_1	0..1	String	0/3	-	0	Storage unit type.
			SU_PL_STCK_2	0..1	String	0/4	-	0	Number of storage units to be placed into storage.
			ST_UN_QTY_2	0..1	String	0/15	-	0	Quantity per storage unit to be placed into stock in alternate UOM.
			ST_UN_QTY_2_ISO	0..1	String	0/3	-	0	ISO code for unit of measure.
			UNITTYPE_2	0..1	String	0/3	-	0	Storage unit type.
			STGE_TYPE_PC	0..1	String	0/3	-	0	Storage Type for transfer posting.
			STGE_BIN_PC	0..1	String	0/10	-	0	Storage Bin for transfer posting.
			NO_PST_CHGNT	0..1	String	0/1	-	0	Indicator: do not create posting change notice.
			GR_NUMBER	0..1	String	0/10	-	0	Goods Receipt number.
			STGE_TYPE_ST	0..1	String	0/3	-	0	Storage Type for stock transfer.
			STGE_BIN_ST	0..1	String	0/10	-	0	Storage Bin for stock transfer.
			MATDOC_TR_CANCEL	0..1	String	0/10	-	0	Material document number of transfer requirement

Data Element				Occurs	Format	Length	Enum	Req	Description	
									to be canceled.	
				MATITEM_TR_CANCEL	0..1	String	0/4	-	0	Material document item of transfer requirement to be canceled.
				MATYEAR_TR_CANCEL	0..1	String	0/4	-	0	Material document year of transfer requirement to be canceled.
				NO_TRANSFER_REQ	0..1	String	0/1	-	0	Indicator: no transfer requirement created.
				CO_BUSPROC	0..1	String	0/12	-	0	Business process.
				ACTTYPE	0..1	String	0/6	-	0	Activity type.
				SUPPL_VEND	0..1	String	0/10	-	0	Supplying vendor.
				MATERIAL_EXTERNAL	0..1	String	0/40	-	0	External material number.
				MATERIAL_GUID	0..1	String	0/32	-	0	External GUID for MATERIAL field.
				MATERIAL_VERSION	0..1	String	0/10	-	0	Version number for MATERIAL field.
				MOVE_MAT_EXTERNAL	0..1	String	0/40	-	0	Long material number for MOVE_MAT field.
				MOVE_MAT_GUID	0..1	String	0/32	-	0	External GUID for MOVE_MAT field.
				MOVE_MAT_VERSION	0..1	String	0/10	-	0	Version number for MOVE_MAT field.
				FUNC_AREA	0..1	String	0/4	-	0	Functional area.
				TR_PART_BA	0..1	String	0/4	-	0	Trading partner's business area.
				PAR_COMPCO	0..1	String	0/4	-	0	Clearing company code.
				E1BP2017_GM_ITEM_CREATE1	0..1	-	-	-	0	Create goods movement (material document) item - additional fields.
				@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
				DELIV_NUMB	0..1	String	0/10	-	0	Delivery number.

<sup>1</sup>

Data Element					Occurs	Format	Length	Enum	Req	Description
				DELIV_ITEM	0..1	String	0/6	-	0	Delivery Item.
				NB_SLIPS	0..1	String	0/3	-	0	Number of GR/GI slips to be printed.
				NB_SLIP SX	0..1	String	0/1	-	0	Updated info in related user data field.
				GR_RCPTX	0..1	String	0/1	-	0	Updated info in related user data field.
				UNLOAD_PTX	0..1	String	0/1	-	0	Updated info in related user data field.
				SPEC_MVMT	0..1	String	0/1	-	0	Special movement indicator for warehouse management.
				GRANT_NBR	0..1	String	0/20	-	0	Grant number.
				CMMT_ITEM_LONG	0..1	String	0/24	-	0	Commitment item.
				FUNC_AREA_LONG	0..1	String	0/16	-	0	Functional area.
				LINE_ID	0..1	String	0/6	-	0	Unique identification of document line.
				PARENT_ID	0..1	String	0/6	-	0	Identifier of immediately superior line.
				LINE_DEPTH	0..1	String	0/2	-	0	Hierarchy level of line in document.
				QUANTITY	0..1	String	0/15	-	0	Quantity.
				BASE_UOM	0..1	String	1/3	-	0	Base unit of entry.
				LONGNUM	0..1	String	0/40	-	0	Smart number.
				BUDGET_PERIOD	0..1	String	0/10	-	0	FM: budget period.
				E1BP2017_GM_SERIALNUMBER	0..*	-	-	-	0	Create material document serial number.
				@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>

<sup>1</sup>

Data Element				Occurs	Format	Length	Enum	Req	Description
			MATDOC_ITM	0..1	String	0/4	-	0	Material document item number.
			SERIALNO	0..1	String	0/18	-	0	Serial number.
			UII	0..1	String	0/72	-	0	Unique item identifier.
			_-SPE_-E1BP2017_SERVICEPART_D	0..*	-	-	-	0	Service parts data.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			LINE_ID	0..1	String	0/6	-	0	Unique identification of document line.
			RET_AUTH_NUMBER	0..1	String	0/20	-	0	Return material authorization number.
			DELIV_NUMBER	0..1	String	0/10	-	0	Delivery number.
			DELIV_ITEM	0..1	String	0/6	-	0	Delivery Item.
			HU_NUMBER	0..1	String	0/20	-	0	External handling unit identification.
			INSPOUT_GUID	0..1	String	0/32	-	0	Inspection outcome: stock GUID set by external WMS.
			EVENT	0..1	String	0/10	-	0	Logical time.
			DATE	0..1	String	0/8	-	0	Date.
			TIME	0..1	String	0/6	-	0	Time.
			ZONLO	0..1	String	0/6	-	0	Time zone of current user.
			TIMESTAMP	0..1	String	0/16	-	0	Start time of transaction (UTC timestamp).
			SCRAP_INDICATOR	0..1	String	0/1	-	0	Scrap indicator for EWM processing.
			KEEP_QUANTITY	0..1	String	0/15	-	0	Retention quantity for scrap, EWM process.
			GTS_STOCK_TYPE	0..1	String	0/1	-	0	GTS Stock type.
			KEEP_QUANTITY_	0..1	String	0/1	-	0	Quantity conversion not necessary flag.

<sup>1</sup>

Data Element				Occurs	Format	Length	Enum	Req	Description
			CONVERSION						
			ZERO_QUANTITY	0..1	String	0/1	-	0	Allow posting of goods movement in spite of zero quantity.
			NUMERATOR	0..1	String	0/6	-	0	Numerator factor for conversion of sales quantity into SKU.
			DENOMINATR	0..1	String	0/6	-	0	Denominator (divisor) for conversion of sales quantity into SKU.
			E1BPPAREX	0..*	-	-	-	0	Extension in/Extension out structure for BAPI.
			@SEGMENT	1..1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			STRUCTURE	0..1	String	0/30	-	0	Structure name of BAPI table extension. Used to identify data element value in VALUEPART1. Valid value: ZBATCH.
			VALUEPART1	0..1	String	0/240	-	0	Data part of BAPI extension parameter. Used to store batch number that is longer than 10 characters when STRUCTURE = ZBATCH. When populated, E1BP2017_GM_ITEM_CREATE-BATCH above should NOT be populated. <sup>2</sup>
			VALUEPART2	0..1	String	0/240	-	0	Data part of BAPI extension parameter.
			VALUEPART3	0..1	String	0/240	-	0	Data part of BAPI extension parameter.
			VALUEPART4	0..1	String	0/240	-	0	Data part of BAPI extension parameter.

<sup>1</sup><sup>2</sup>SP03-23985873-34

# Inventory Adjustments Reversal Errors (IDoc)

The following errors may be encountered with the Inventory Adjustments Reversal message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
CREDAT	File creation date is required !!!	The error occurs if the source is empty or null.
CRETIM	File creation time is required !!!	The error occurs if the source is empty or null.
MATERIAL	CustomerMaterial is required !!!	The error occurs if the source is empty or null.
BATCH	CustomerBatchNumber is required !!!	The error occurs if the source is empty or null.
ENTRY_QNT	Quantity is required !!!	The error occurs if the source is empty or null.
ENTRY_UOM	Unit of Measure required when UnitOfMeasure present !!!	The error occurs if quantity present but source unit of measure is null or empty OR if source is not from valid enum list.
<b>Class 2 Errors</b>		
AuthenticationId   <b>authid</b>	auth ID is required, must be a company admin for the PL <plid>.	The error occurs if a non-administrator of the application link attempts to make an inventory adjustment.
ProcessLinkId   <b>plid</b>	Process Link ID is required.	The error occurs if an adjustment is attempted without a specified link to the application.
Received From Company	Received from company is required for processing canonical inventory (ieid): < ie.id>.	The error occurs if the received from company is not specified in the inventory adjustment.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Adjustments Reversal Message Example (IDoc)

The following is a fully populated Inventory Adjustments Reversal example:

```
<?xml version="1.0" encoding="UTF-8"?>
<MBGMCR03>
  <IDOC BEGIN="1">
    <EDI_DC40 SEGMENT="1">
      <TABNAM>EDI_DC40</TABNAM>
      <MANDT>001</MANDT>
      <DOCNUM>0000000000619827</DOCNUM>
      <DOCREL>700</DOCREL>
      <STATUS>30</STATUS>
      <DIRECT>1</DIRECT>
      <OUTMOD>2</OUTMOD>
      <TEST>X</TEST>
      <IDOCTYP>MBGMCR03</IDOCTYP>
      <MESTYP>MBGMCR</MESTYP>
      <SNDPOR>SAPD11</SNDPOR>
      <SNDPRT>LS</SNDPRT>
      <SNDP RN>ROVI</SNDP RN>
      <SNDLAD>FROS</SNDLAD>
      <RCVPOR>TRACELINK</RCVPOR>
      <RCVPRT>LS</RCVPRT>
      <RCVPFC>LS</RCVPFC>
      <RCVPRN>TRACELINK</RCVPRN>
      <RCVLAD>0000038141</RCVLAD>
      <CREDAT>20120710</CREDAT>
      <CRETIM>172850</CRETIM>
      <SERIAL>20120710172850</SERIAL>
    </EDI_DC40>
    <E1MBGMCR SEGMENT="1">
      <E1BP2017_GM_HEAD_01 SEGMENT="1">
        <PSTNG_DATE>20120527</PSTNG_DATE>
        <DOC_DATE>20120527</DOC_DATE>
        <REF_DOC_NO>4901365532</REF_DOC_NO>
        <BILL_OF_LADING>1234xYz</BILL_OF_LADING>
        <PR_UNAME>AWESOME</PR_UNAME>
      </E1BP2017_GM_HEAD_01 SEGMENT="1">
    </E1MBGMCR SEGMENT="1">
  </IDOC BEGIN="1">
</MBGMCR03>
```

```
<HEADER_TXT>Entrada de consumos de or</HEADER_TXT>
</E1BP2017_GM_HEAD_01>
<E1BP2017_GM_CODE_SEGMENT="1">
  <GM_CODE>01</GM_CODE>
</E1BP2017_GM_CODE>
<E1BP2017_GM_ITEM_CREATE_SEGMENT="1">
  <MATERIAL>FRB674908</MATERIAL>
  <PLANT>FROS</PLANT>
  <STGE_LOC>ED01</STGE_LOC>
  <BATCH>0001106639</BATCH>
  <MOVE_TYPE>101</MOVE_TYPE>
  <STCK_TYPE>X</STCK_TYPE>
  <SPEC_STOCK>E</SPEC_STOCK>
  <VENDOR>CH01</VENDOR>
  <CUSTOMER>0001013694</CUSTOMER>
  <ENTRY_QNT>22590.000</ENTRY_QNT>
  <ENTRY_UOM>U2</ENTRY_UOM>
  <PO_NUMBER>4500176884</PO_NUMBER>
  <PO_ITEM>00000</PO_ITEM>
  <ITEM_TEXT>Item text</ITEM_TEXT>
  <GR_RCPT>987695</GR_RCPT>
  <ORDERID>000001003933</ORDERID>
  <MVT_IND>B</MVT_IND>
  <MOVE_REAS>0001</MOVE_REAS>
  <EXPIRYDATE>20130411</EXPIRYDATE>
  <VENDRBATCH>6024593</VENDRBATCH>
</E1BP2017_GM_ITEM_CREATE>
</E1MBGMCR>
</IDOC>
</MBGMCR03>
```

# Inventory Report Overview

The Inventory Report message allows a CMO to provide a Pharmaceutical Manufacturer with the inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO location. Information communicated includes product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### CSV Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - INVRPT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - PROACT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### XML Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

# Inventory Report Guidelines (IDoc - INVRPT01)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_REPORT

**Info Exchange Display Name:** Inventory Report

① When sending an element in Date or DateTime format, a valid date must be given. "00" is not a valid day or month value and "0000" is not a valid year value.

Data Element	Occurs	Format	Length	Enum	Req	Description
YM_INVRPT01	1...1	-	-	-	M	XML extended IDoc basic type YM_INVRPT01 root element.
IDOC	1...1	-	-	-	M	IDoc root data element.
@BEGIN	1...1	String	1/1	-	M	Beginning of the message attribute. Identifies the beginning of the XML IDoc. <sup>1</sup>
EDI_DC40	1...1	-	-	-	M	IDoc control record. Defines beginning of the inbound Inventory Report extended IDoc message.
@SEGMENT	1...1	String	1/1	-	M	Beginning of the segment attribute. <sup>2</sup>
TABNAM	0...1	String	0/*	-	O	IDoc table name. <sup>3</sup>
MANDT	0...1	String	0/3	-	O	Client. <sup>4</sup>
DOCNUM	0...1	String	0/16	-	O	IDoc number. <sup>5</sup>
DOCREL	0...1	String	0/4	-	O	IDoc version release number. <sup>6</sup>
STATUS	0...1	String	0/2	-	O	Current IDoc processing status. <sup>7</sup>

<sup>1</sup>

<sup>2</sup>

<sup>3</sup>EDI\_DC40

<sup>4</sup>120

<sup>5</sup>0000000003594521

<sup>6</sup>740

<sup>7</sup>03

Data Element			Occurs	Format	Length	Enum	Req	Description
		DIRECT	0...1	String	0/*	-	0	Direction of IDoc. Valid values: <sup>1</sup> <ul style="list-style-type: none"> <li>1 = Outbound from the sending SAP system.</li> <li>2 = Inbound to the receiving SAP system.</li> </ul>
		OUTMOD	0...1	String	0/1	-	0	Output mode. <sup>2</sup>
		EXPRSS	0...1	String	0/1	-	0	Overriding in inbound processing.
		TEST	0...1	String	0/1	-	0	IDoc test flag. Default is null. Ffield is not present in message.
		IDOCTYP	0...1	String	0/*	-	0	IDoc basic type. Valid value: "INVRPT01". <sup>3</sup>
		CIMTYP	0...1	String	0/*	-	0	Name of the extension type. <sup>4</sup>
		MESTYP	0...1	String	0/30	-	0	Logical message type. Valid value: "INVRPT". <sup>5</sup>
		MESCOD	0...1	String	0/3	-	0	Logical message code.
		MESFCT	0...1	String	0/3	-	0	Logical message function.
		STD	0...1	String	0/1	-	0	EDI standard.
		STDVRS	0...1	String	0/6	-	0	Version of the EDI standard.
		STDMES	0...1	String	0/6	-	0	EDI message type.
		SNDPOR	0...1	String	0/10	-	0	Sender port (e.g. SAP System, EDI subsystem). <sup>6</sup>
		SNDPRT	0...1	String	0/2	-	0	Partner type of the sender. <sup>7</sup>
		SNDPFC	0...1	String	0/2	-	0	Partner function of the sender.
		SNDPRN	0...1	String	0/10	-	0	Partner number of the sender. <sup>8</sup>

<sup>1</sup><sup>2</sup><sup>3</sup>INVRPT01<sup>4</sup>YM\_INVRPT01<sup>5</sup>INVRPT<sup>6</sup>SAPREP<sup>7</sup>LS<sup>8</sup>REPLNT120

Data Element			Occurs	Format	Length	Enum	Req	Description
		SNDSAD	0...1	String	0/21	-	0	Sender address.
		SNDLAD	0...1	String	0/70	-	M	Logical address of sender. Identifies sender of the IDoc for TraceLink ProcessLink configuration. For inbound Inventory Report: Sender = CMO (Supplier Site). <sup>1</sup>
		RCVPOR	0...1	String	0/10	-	0	SAP receiver port. <sup>2</sup>
		RCVPRT	0...1	String	0/2	-	0	Partner type of the receiver. <sup>3</sup>
		RCVPFC	0...1	String	0/2	-	0	Partner function of the receiver. <sup>4</sup>
		RCVPRN	0...1	String	0/10	-	0	Partner number of the receiver.
		RCVSAD	0...1	String	0/21	-	0	Receiver address.
		RCVLAD	0...1	String	0/70	-	M	Logical address of the receiver. Identifies receiver of the IDoc for TraceLink ProcessLink configuration. For inbound Inventory Report: Receiver = Pharmaceutical Manufacturer. <sup>5</sup>
		CREDAT	0...1	String	0/8	-	M	Message date in IDoc date format YYYYMMDD. <sup>6</sup>
		CRETIM	0...1	String	0/6	-	M	Message time in IDoc time format HHMMSS. <sup>7</sup>
		REFINT	0...1	String	0/14	-	0	Reference to interchange file.
		REFGRP	0...1	String	0/14	-	0	Reference to message group.
		REFMES	0...1	String	0/14	-	0	Reference to message.
		ARCKEY	0...1	String	0/70	-	0	EDI archive key.
		SERIAL	0...1	String	0/20	-	0	EDI/ALE: Serialization field.


<sup>1</sup>SupplierSite<sup>2</sup>SAPRPP<sup>3</sup>LS<sup>4</sup>LS<sup>5</sup>BrandOwner<sup>6</sup>20181031<sup>7</sup>172850

Data Element		Occurs	Format	Length	Enum	Req	Description
	E1DRM01	0...1	-	-	-	O	Inventory report header segment.
	@SEGMENT	1...1	String	0/*	-	M	Beginning of the segment attribute. <sup>1</sup>
	EFF_DATE	0...1	Date	0/8	-	O	Effective date for inventory data in IDoc date format YYYYMMDD. <sup>2</sup>
	EFF_TIME	0...1	Time	0/6	-	O	Effective time for inventory data in IDoc time format HHMMSS. <sup>3</sup>
	TRANSNO	0...1	String	0/35	-	O	IDoc document number. <sup>4</sup>
	TRANDATE	0...1	Date	0/8	-	O	Message date in IDoc date format YYYYMMDD. <sup>5</sup>
	TRANTIME	0...1	Time	0/6	-	O	Message time in IDoc time format HHMMSS. <sup>6</sup>
	E1ADRM0	0...10	-	-	-	M	Trading partner identification and address data. Supported party types for shipment: <ul style="list-style-type: none"> <li>• Vendor (mandatory)</li> <li>• Sold to party (optional)</li> </ul> At least one instance of E1ADRM0 is present in the message for the Vendor party.
	@SEGMENT	1...1	String	0/*	-	M	Beginning of the segment attribute. <sup>7</sup>
	PARTNER_Q	0...1	String	0/3	-	M	Qualifier identifying partner function. Valid values: <sup>8</sup> <ul style="list-style-type: none"> <li>• "LF" = Vendor (mandatory)</li> <li>• "AG" = Sold to party (optional)</li> </ul>
	PARTNER_ID	0...1	String	0/17	-	M	SAP partner number in the sender's partner master data. Vendor identifier number is required. <sup>9</sup>

<sup>1</sup><sup>2</sup>20181031<sup>3</sup>172850<sup>4</sup>0000000003594521<sup>5</sup>20181031<sup>6</sup>172850<sup>7</sup><sup>8</sup>LF<sup>9</sup>0003000007

Data Element				Occurs	Format	Length	Enum	Req	Description
			NAME1	0..1	String	0/40	-	0	Business name of the party or location. <sup>1</sup>
			STREET1	0..1	String	0/40	-	0	Main street address of business party or location.
			POSTL_COD1	0..1	String	0/10	-	0	Postal code of business party or location.
			CITY1	0..1	String	0/40	-	0	City of business party or location.
			COUNTRY1	0..1	String	0/3	-	0	Country indicator (ISO alphanumeric).
			REGION	0..1	String	0/3	-	0	Region code for business party or location.
			E1DRM02	1..*	-	-	-	M	Inventory report line item level data. Looping group.
			@SEGMENT	1..1	String	0/*	-	M	Beginning of the segment attribute.
			POSEX	0..1	String	0/6	-	0	Item number.
			ACTION	0..1	String	0/3	-	0	Action code for the item..
			MEASUNIT	0..1	String	0/3	-	0	Unit of measure..
			XN_CODE	0..1	String	0/20	-	0	Transaction code..
			EFF_DATE	0..1	Date	0/8	-	0	Effective date for inventory data in IDoc date format YYYYMMDD.
			YMDRM02	1..1	-	-	-	M	Extended segment for custom fields at line item level.
			@SEGMENT	1..1	String	0/*	-	M	Beginning of the segment attribute.
			WERKS	0..1	String	0/4	-	M	The SAP Plant ID, use for determining the location.
			Z_AVAIL_DATE	0..1	Date	0/*	-	M	Batch availability date. Quality management lot planned end date for quality assurance. In IDoc date format YYYYMMDD.
			Z_STOCK_TYPE	0..1	String	0/30	-	M	Declares if the batch is under quality assurance, then the expected availability date should correspond to the quality management lot planned end date. For immediately available inventory, use the extraction date.

<sup>1</sup>SupplierSiteName

Data Element				Occurs	Format	Length	Enum	Req	Description
			Z_EXPIRATION_DATE	0...1	Date	0/*	-	M	The batch expiration date.
			Z_BATCH_STATUS	0...1	String	0/1	-	0	Shows restricted or unrestricted stock type. Valid value: "X" if restricted.   If not populated, defaults to unrestricted.
			E1DRM04	0...*	-	-	-	M	Quantity details for storage locations.
			@SEGMENT	1...1	String	0/*	-	M	Beginning of the segment attribute.
			QUALF	0...1	String	0/3	-	M	IDOC qualifier reference document. Identifies batch quantity at storage location. Valid value: "079"
			STOCK_LOC	0...1	String	0/10	-	0	Storage location.
			QTY	0...1	String	0/15	-	M	Quantity.
			UOM	0...1	String	0/3	UnitOfMeasure	M	Unit of measure.
			E1EDP19	1...*	-	-	-	M	Communicates material identifiers and lot number.
			@SEGMENT	1...1	String	0/*	-	M	Beginning of the segment attribute.
			QUALF	0...1	String	0/3	-	M	Qualifier element identifying record as material number, batch number, etc. Valid values: <ul style="list-style-type: none"> <li>"001": Material</li> <li>"010": Lot or batch number</li> </ul>
			IDTNR	0...1	String	0/35	-	M	Material identification number. <ul style="list-style-type: none"> <li>If QUALF = "001" this is the material number.</li> <li>If QUALF = "010" this is the lot or batch number.</li> </ul>
			KTEXT	0...1	String	0/70	-	0	Description of identified item. Pass material description for QUALF = "001".

Data Element					Occurs	Format	Length	Enum	Req	Description
				MFRPN	0..1	String	0/42	-	0	Manufacturer part number.
				MFRNR	0..1	String	0/10	-	0	Manufacturer number.

# Inventory Report Errors (IDoc - INVRPT01)

The following errors may be encountered with the Inventory Report message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
SNDLAD	SNDLAD is required to build the process link key !!!	The error occurs if the source is empty or null.
RCVLAD	RCVLAD is required to build the process link key !!!	The error occurs if the source is empty or null.
PARTNER_Q	Vendor number is required !!!	The error occurs if there is no instance of PARTNER_Q = "LF".
PARTNER_ID	Vendor number is required !!!	The error occurs if PARTNER_Q = "LF", but the source is empty or null.
WERKS	Plant identifier is required !!!	The error occurs if the source is empty or null.
Z_AVAIL_DATE	Batch availability date is required !!!	The error occurs if the source is empty or null.
Z_STOCK_TYPE	Stock type is required !!!	The error occurs if the source is empty or null.
Z_EXPIRATION_DATE	Batch expiration date is required !!!	The error occurs if the source is empty or null.
QTY	Quantity is required !!!	The error occurs if QUALF (E1DRM04) = "079", but the source is empty or null.
UOM	Valid unit of measure is required !!!	The error occurs if the source is empty or null, or is not a valid value from the enumeration list.
IDTNR	Customer item number is required !!!	The error occurs if QUALF (E1EDP19) = "001", but the source is empty or null.
	Supplier lot number is required !!!	The error occurs if QUALF (E1EDP19) = "010", but the source is empty or null.
<b>Class 2 Errors</b>		
-	-	-

Data Element	Error Message	Description
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Report Message Example (IDoc - INVRPT01)

The following is a fully populated Inventory Report example:

```
<?xml version="1.0" encoding="UTF-8"?>
<YM_INVRPT01>
  <IDOC BEGIN="1">
    <EDI_DC40 SEGMENT="1">
      <TABNAM>EDI_DC40</TABNAM>
      <MANDT>300</MANDT>
      <DOCNUM>0000000001028013</DOCNUM>
      <DOCREL>640</DOCREL>
      <STATUS>30</STATUS>
      <DIRECT>1</DIRECT>
      <OUTMOD>2</OUTMOD>
      <IDOCTYP>INVRPT01</IDOCTYP>
      <CIMTYP>YM_INVRPT01</CIMTYP>
      <MESTYP>INVRPT</MESTYP>
      <SNDPOR>SAPQ01</SNDPOR>
      <SNDPRT>LS</SNDPRT>
      <SNDP RN>Q01100</SNDP RN>
      <SNDLAD>SupplierSiteId</SNDLAD>
      <RCVPOR>A000000026</RCVPOR>
      <RCVPRT>LS</RCVPRT>
      <RCVPRN>I16200</RCVPRN>
      <RCVLAD>CustomerID</RCVLAD>
      <CREDAT>20181115</CREDAT>
      <CRETIM>173917</CRETIM>
    </EDI_DC40>
    <E1DRM01 SEGMENT="1">
      <EFF_DATE>20181115</EFF_DATE>
      <EFF_TIME>174525</EFF_TIME>
      <TRANSNO>0000000001028013</TRANSNO>
      <TRANDATE>20181115</TRANDATE>
      <TRANTIME>174525</TRANTIME>
    </E1DRM01>
    <E1ADRM0 SEGMENT="1">
      <PARTNER_Q>LF</PARTNER_Q>
```

```

<PARTNER_ID>103487</PARTNER_ID>
<NAME1>SupplierCompany</NAME1>
</E1ADRM0>
<E1DRM02 SEGMENT="1">
  <POSEX>1</POSEX>
  <YMDRM02 SEGMENT="1">
    <WERKS>FR11</WERKS>
    <Z_AVAIL_DATE>20191115</Z_AVAIL_DATE>
    <Z_BATCH_STATUS_KEY>0</Z_BATCH_STATUS_KEY>
    <Z_STOCK_TYPE>1</Z_STOCK_TYPE>
    <Z_EXPIRATION_DATE>20211031</Z_EXPIRATION_DATE>
    <Z_BATCH_STATUS>X</Z_BATCH_STATUS>
  </YMDRM02>
  <E1DRM04 SEGMENT="1">
    <QUALF>079</QUALF>
    <STOCK_LOC>9011</STOCK_LOC>
    <QTY>61.000</QTY>
    <UOM>PCE</UOM>
    <E1EDP19 SEGMENT="1">
      <QUALF>001</QUALF>
      <IDTNR>3008380401</IDTNR>
      <KTEXT>ProductName</KTEXT>
    </E1EDP19>
    <E1EDP19 SEGMENT="1">
      <QUALF>010</QUALF>
      <IDTNR>246588</IDTNR>
    </E1EDP19>
  </E1DRM04>
</E1DRM02>
<E1DRM02 SEGMENT="1">
  <POSEX>2</POSEX>
  <YMDRM02 SEGMENT="1">
    <WERKS>FR11</WERKS>
    <Z_AVAIL_DATE>20191115</Z_AVAIL_DATE>
    <Z_BATCH_STATUS_KEY>0</Z_BATCH_STATUS_KEY>
    <Z_STOCK_TYPE>1</Z_STOCK_TYPE>
    <Z_EXPIRATION_DATE>20211031</Z_EXPIRATION_DATE>
    <Z_BATCH_STATUS>X</Z_BATCH_STATUS>
  </YMDRM02>
</E1DRM02>

```

```
</YMDRM02>  
<E1DRM04 SEGMENT="1">  
  <QUALF>079</QUALF>  
  <STOCK_LOC>9011</STOCK_LOC>  
  <QTY>14695.000</QTY>  
  <UOM>PCE</UOM>  
  <E1EDP19 SEGMENT="1">  
    <QUALF>001</QUALF>  
    <IDTNR>3008380401</IDTNR>  
    <KTEXT>ProductName</KTEXT>  
  </E1EDP19>  
  <E1EDP19 SEGMENT="1">  
    <QUALF>010</QUALF>  
    <IDTNR>249870</IDTNR>  
  </E1EDP19>  
</E1DRM04>  
</E1DRM02>  
</IDOC>  
</YM_INV RPT01>
```

# Inventory Report Overview

The Inventory Report message allows a CMO to provide a Pharmaceutical Manufacturer with the inventory balances for all product owned by the Pharmaceutical Manufacturer at the CMO location. Information communicated includes product code, lot number, quantity, and inventory status (on hand, on hold, in quality inspection, or on order).

ⓘ This message uses the Park and Retry functionality. If a prerequisite condition for this message has not been met, TraceLink stops processing the task, returns the task to the queue, and then tries to process the task again every 15 minutes for up to 49 hours.

## Main Topics

### CSV Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - INVRPT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### IDoc - PROACT01 Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

### XML Format

- [Inventory Report Guidelines](#)
- [Inventory Report Errors](#)
- [Inventory Report Message Example](#)

# Inventory Report Guidelines (IDoc - PROACT01)

See How To Use this Guide before interpreting the guidelines below.

**Message Type:** INVENTORY\_REPORT

**Info Exchange Display Name:** Inventory Report

① When sending an element in Date or DateTime format, a valid date must be given. "00" is not a valid day or month value and "0000" is not a valid year value.

Data Element		Occurs	Format	Length	Enum	Req	Description
PROACT01		1...1	-	-	-	M	XML Inventory Report message.
	IDOC	1...1	-	-	-	M	IDoc object.
	@BEGIN	1...1	String	0/*	-	M	Begin of message attribute. <sup>1</sup>
	EDI_DC40	1...1	-	-	-	M	IDoc Control record.
	@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
	TABNAM	1...1	String	0/*	-	M	IDoc table name. <sup>3</sup>
	MANDT	0...1	String	0/3	-	O	Client. <sup>4</sup>
	DOCNUM	0...1	String	0/16	-	O	IDoc number. <sup>5</sup>
	DOCREL	0...1	String	0/4	-	O	IDoc version release number. <sup>6</sup>
	STATUS	0...1	String	0/2	-	O	Current IDoc processing status. <sup>7</sup>
	DIRECT	0...1	String	0/*	-	O	Direction. <sup>8</sup>

<sup>1</sup>

<sup>2</sup>

<sup>3</sup>EDI\_DC40

<sup>4</sup>300

<sup>5</sup>00000000134206118

<sup>6</sup>700

<sup>7</sup>30

<sup>8</sup>1

Data Element			Occurs	Format	Length	Enum	Req	Description
		OUTMOD	0...1	String	0/1	-	0	Output mode. <sup>1</sup>
		EXPRSS	0...1	String	0/1	-	0	Overriding in inbound processing.
		TEST	0...1	String	0/1	-	0	Test flag.
		IDOCTYP	1...1	String	0/30	-	M	IDoc basic type. <sup>2</sup>
		CIMTYP	0...1	String	0/*	-	0	Name of extension type.
		MESTYP	1...1	String	0/*	-	M	Logical message type. <sup>3</sup>
		MESCOD	0...1	String	0/3	-	0	Logical message code.
		MESFCT	0...1	String	0/3	-	0	Logical message function.
		STD	0...1	String	0/1	-	0	EDI standard.
		STDVRS	0...1	String	0/6	-	0	Version of EDI standard.
		STDMES	0...1	String	0/6	-	0	EDI message type.
		SNDPOR	1...1	String	1/10	-	M	Sender port. <sup>4</sup>
		SNDPRT	1...1	String	1/2	-	M	Partner type of sender. <sup>5</sup>
		SNDPFC	0...1	String	0/2	-	0	Partner function of sender.
		SNDPRN	1...1	String	1/10	-	M	Partner number of sender. <sup>6</sup>
		SNDSAD	0...1	String	0/21	-	0	Sender address (SADR).
		SNDLAD	1...1	String	1/70	-	M	Logical address of sender. <sup>7</sup>
		RCVPOR	1...1	String	1/10	-	M	SAP receiver port. <sup>8</sup>

<sup>1</sup>2<sup>2</sup>PROACT01<sup>3</sup>PROACT<sup>4</sup>SAPERP<sup>5</sup>LS<sup>6</sup>PRDCLNT300<sup>7</sup>SUPP01<sup>8</sup>TRACELINK

Data Element				Occurs	Format	Length	Enum	Req	Description
			RCVPRT	1...1	String	1/2	-	M	Partner type of receiver. <sup>1</sup>
			RCVPFC	0...1	String	0/2	-	O	Partner function of receiver. <sup>2</sup>
			RCVPRN	1...1	String	1/10	-	M	Partner number of receiver. <sup>3</sup>
			RCVSAD	0...1	String	0/21	-	O	Receiver address (SADR).
			RCVLAD	1...1	String	1/70	-	M	Logical address of receiver. <sup>4</sup>
			CREDAT	0...1	String	0/8	-	O	Date IDoc was created. <sup>5</sup>
			CRETIM	0...1	String	0/6	-	O	Time IDoc was created. <sup>6</sup>
			REFINT	0...1	String	0/14	-	O	Reference to interchange file.
			REFGRP	0...1	String	0/14	-	O	Reference to message group.
			REFMES	0...1	String	0/14	-	O	Reference to message.
			ARCKEY	0...1	String	0/70	-	O	EDI archive key.
			SERIAL	0...1	String	0/20	-	O	EDI/ALE: Serialization field.
		E1EDK34		1...1	-	-	-	M	General header segment.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>7</sup>
			ACTION	0...1	String	1/3	-	O	IDoc action code for the entire message. <sup>8</sup>
			DATUM	0...1	String	0/8	-	O	Reporting Date in format YYYYMMDD. <sup>9</sup>
			UZEIT	0...1	String	0/6	-	O	Time of extract Reporting Time in HHMMSS format. <sup>10</sup>

<sup>1</sup>LS<sup>2</sup>LS<sup>3</sup>TRACELINK<sup>4</sup>CUSTA02<sup>5</sup>20151030<sup>6</sup>161010<sup>7</sup>1<sup>8</sup>000<sup>9</sup>20151030<sup>10</sup>161010

Data Element		Occurs	Format	Length	Enum	Req	Description
	E1ADRM1	1...10	-	-	-	M	Reporting Location Segment. Only 1 location per IDoc - either Customer or Supplier is acceptable, but not both. This is typically "Customer."
	@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
	PARTNER_Q	1...1	String	1/3	-	M	Qualifier for Partner function. <sup>2</sup>
	PARTNER_ID	0...1	String	0/17	-	O	Partner ID. <sup>3</sup>
	LANGUAGE	0...1	String	0/2	-	O	Language Key. <sup>4</sup>
	NAME1	0...1	String	0/40	-	O	Business name of the reporting location. <sup>5</sup>
	NAME2	0...1	String	0/40	-	O	Additional business name of the reporting location. <sup>6</sup>
	LOCATION	0...1	String	0/40	PlantIdentifier	O	Location description. Plant ID using customer representation (e.g. customer's ID for the contract supplier facility that holds the inventory). <sup>7</sup>
	STREET1	0...1	String	0/40	-	O	Street 1. <sup>8</sup>
	STREET2	0...1	String	0/40	-	O	Street 2.
	POSTL_COD1	0...1	String	0/10	-	O	Postal code. <sup>9</sup>
	CITY1	0...1	String	0/40	-	O	City. <sup>10</sup>
	COUNTRY1	0...1	String	0/*	-	O	Country code of reporting location using ISO code (alphanumeric). <sup>11</sup>
	REGION	0...1	String	0/3	-	O	State or Province of reporting location using ISO code. <sup>12</sup>
	E1EDP31	1...*	-	-	-	M	General Inventory Item Segment.

<sup>1</sup><sup>2</sup>AG<sup>3</sup>0009993691<sup>4</sup>EN<sup>5</sup>CP Madison Plant<sup>6</sup>Madison Region Operations<sup>7</sup>1077<sup>8</sup>150 Main Street<sup>9</sup>47250<sup>10</sup>Madison<sup>11</sup>US<sup>12</sup>WI

Data Element				Occurs	Format	Length	Enum	Req	Description
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>1</sup>
			ACTION	0...1	String	1/3	-	O	Action Code for item. <sup>2</sup>
			POSEX	0...1	String	0/6	-	O	Sequential Item Number for each material/batch. <sup>3</sup>
			E1EDP19[1]	1...5	-	-	-	M	Customer material number data. Customer Material = QUALF 001: CustomerItemCode.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>4</sup>
			QUALF	1...1	String	1/3	-	M	Material type qualifier: Customer. Valid value: 001 = Customer material number. <sup>5</sup>
			IDTNR	0...1	String	0/35	-	O	Customer material number. <sup>6</sup>
			KTEXT	0...1	String	0/70	-	O	Item description. <sup>7</sup>
			E1EDP19[2]	1...5	-	-	-	M	Customer Lot number data. Customer Lot Number = QUALF 010: CustomerLotNumber.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>8</sup>
			QUALF	1...1	String	1/3	-	M	Material type qualifier: Customer lot number. Valid value: 010 = Customer lot/batch number. <sup>9</sup>
			IDTNR	0...1	String	0/35	-	O	Primary lot or batch number. <sup>10</sup>
			MFRPN	0...1	String	0/42	-	O	Secondary lot or batch number. <sup>11</sup>

<sup>1</sup><sup>2</sup>000<sup>3</sup>000001<sup>4</sup>1<sup>5</sup>001<sup>6</sup>888888<sup>7</sup>FLUMED 75 MG ORAL<sup>8</sup>1<sup>9</sup>010<sup>10</sup>10PSN101<sup>11</sup>20BTC202

Data Element				Occurs	Format	Length	Enum	Req	Description
			MFRNR	0...1	String	0/10	-	0	Lot expiration date. <sup>1</sup>
			E1EDP32[1]	1...*	-	-	-	M	Stock Data Segment. Identifies the quantity of material for the item and/or lot specified in E1EDP19. This segment repeats up to four times to provide the quantity of the item for each available stock type. Quantity on Hand maps to QUAL 101 > QuantityType ON_HAND.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
			QUALF	1...1	String	1/3	QuantityType	M	Quantity Qualifier for inventory disposition. <sup>3</sup>
			QUANTITY	0...1	String	0/15	-	0	Quantity of item referenced in E1EDP19.IDTNR. <sup>4</sup>
			UNIT	0...1	String	1/3	UnitOfMeasure	0	ISO Unit of Measure. <sup>5</sup>
			DATE	0...1	Date	0/8	-	0	Date of extract. <sup>6</sup>
			TIME	0...1	Time	0/6	-	0	Time of extract. <sup>7</sup>
			E1EDP32[2]	1...*	-	-	-	M	Quantity on Hold. Maps to QUAL 103 > QuantityType ON_HOLD.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>8</sup>
			QUALF	1...1	String	1/3	QuantityType	M	Quantity Qualifier for inventory disposition. <sup>9</sup>
			QUANTITY	0...1	String	0/15	-	0	Quantity of item and/or lot referenced in E1EDP19.IDTNR. <sup>10</sup>
			UNIT	0...1	String	1/3	UnitOfMeasure	0	ISO Unit of Measure. <sup>11</sup>
			DATE	0...1	Date	0/8	-	0	Date of extract. <sup>12</sup>

<sup>1</sup>20180412<sup>2</sup>1<sup>3</sup>101<sup>4</sup>10000<sup>5</sup>EA<sup>6</sup>20110118<sup>7</sup>105700<sup>8</sup>1<sup>9</sup>103<sup>10</sup>10000<sup>11</sup>EA<sup>12</sup>20110118

Data Element				Occurs	Format	Length	Enum	Req	Description
			TIME	0...1	Time	0/6	-	0	Time of extract. <sup>1</sup>
			E1EDP32[3]	1...*	-	-	-	M	Quantity In Inspection. Maps to QUAL 102 > QuantityType IN_INSPECTION.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>2</sup>
			QUALF	1...1	String	1/3	QuantityType	M	Quantity qualifier for inventory disposition. <sup>3</sup>
			QUANTITY	0...1	String	0/15	-	0	Quantity of item referenced in E1EDP19.IDTNR. <sup>4</sup>
			UNIT	0...1	String	1/3	UnitOfMeasure	0	ISO Unit of Measure. <sup>5</sup>
			DATE	0...1	Date	0/8	-	0	Date of extract. <sup>6</sup>
			TIME	0...1	Time	0/6	-	0	Time of extract. <sup>7</sup>
			E1EDS02	0...*	-	-	-	0	IDoc Summary Total Quantities.
			@SEGMENT	1...1	String	0/*	-	M	Begin of segment attribute. <sup>8</sup>
			SUMID	0...1	String	1/3	SumID	0	Qualifier for totals segment. <sup>9</sup>
			SUMME	0...1	String	0/18	-	0	Total number of IDocs in file. <sup>10</sup>
			SUNIT	0...1	String	0/3	CurrencyCode	0	Currency for unit value if sum amount.

<sup>1</sup>105700<sup>2</sup>1<sup>3</sup>102<sup>4</sup>10000<sup>5</sup>EA<sup>6</sup>20151030<sup>7</sup>105700<sup>8</sup>1<sup>9</sup>028<sup>10</sup>001

# Inventory Report Errors (IDoc - PROACT01)

The following errors may be encountered with the Inventory Report message:

Data Element	Error Message	Description
<b>Class 1 Errors</b>		
DOCNUM	IDoc DOCNUM is required !!!	The error occurs if a required field is empty or null.
SNDLAD	Supplier site ID in source SNDLAD is required !!!	The error occurs if the required source is missing or null.
RCVLAD	Customer ID in source RCVLAD is required !!!	The error occurs if the required source is missing or null.
DATUM	Reporting Date is required !!!	The error occurs if the required source is missing or null.
NAME1	IDoc NAME1 is required !!!	The error occurs if the required source is missing or null.
LOCATION	Valid plant ID is required !!!	The error occurs if the source is present, but there is no matching entry in the lookup file.
UNIT	Unit of Measure required when Quantity populated !!!	The error occurs if quantity is present but source unit of measure is null or empty.
<b>Class 2 Errors</b>		
companyLocationId	caller <company><companyLocationId> not found.format (companyLocationId).	The error occurs if a company cannot be found in the database.
companyLocationId   <b>parentCompanyId</b>	caller <location>companyLocationId <is not a location of company id <parentCompanyId>.	The error occurs if a companyLocationId is not a location of the specified parentCompanyId.
userid	caller <.user> <userid> is not admin of company.	The error occurs if a non admin of a company attempts to create an inventory report.
userid   <b>companyLocationId</b>	caller <.user> <userid> does not work for <company id> <companyLocationId>.	The error occurs if a validation error prevents a company's ID from working with a companyLocationId.
<b>Class 3 Errors</b>		
The following is thrown for all Class 3 errors: "INTERNALERROR=Internal error from server [server details]." Please contact Support if this error is encountered.		

# Inventory Report Message Example (IDoc - PROACT01)

The following is a fully populated Inventory Report example:

```
<?xml version="1.0" encoding="UTF-8"?>
<PROACT01>
  <IDOC BEGIN="1">
    <EDI_DC40 SEGMENT="1">
      <TABNAM>EDI_DC40</TABNAM>
      <MANDT>222</MANDT>
      <DOCNUM>0000000001028013</DOCNUM>
      <DIRECT>1</DIRECT>
      <IDOCTYP>PROACT01</IDOCTYP>
      <MESTYP>PROACT</MESTYP>
      <SNDPOR>SAPPD2</SNDPOR>
      <SNDPRT>LS</SNDPRT>
      <SNDPRN>PRDCLNT300</SNDPRN>
      <SNDLAD>SUPP01</SNDLAD>
      <RCVPOR>TRACELINK</RCVPOR>
      <RCVPRT>LS</RCVPRT>
      <RCVPRN>TRACELINK</RCVPRN>
      <RCVLAD>CUSTA02</RCVLAD>
      <CREDAT>20151030</CREDAT>
      <CRETIM>173917</CRETIM>
    </EDI_DC40>
    <E1EDK34 SEGMENT="1">
      <ACTION>000</ACTION>
      <DATUM>20151030</DATUM>
    </E1EDK34>
    <E1ADRM1 SEGMENT="1">
      <PARTNER_Q>LF</PARTNER_Q>
      <PARTNER_ID>103487</PARTNER_ID>
      <LANGUAGE>En</LANGUAGE>
      <NAME1>1077</NAME1>
    </E1ADRM1>
    <E1EDP31 SEGMENT="1">
      <ACTION>000</ACTION>
      <POSEX>000001</POSEX>
```

```

<E1EDP19 SEGMENT="1">
  <QUALF>001</QUALF>
  <IDTNR>3456789</IDTNR>
  <KTEXT>FLUMED 75 MG ORAL</KTEXT>
</E1EDP19>
<E1EDP19 SEGMENT="1">
  <QUALF>010</QUALF>
  <IDTNR>10PSN101</IDTNR>
</E1EDP19>
<E1EDP32 SEGMENT="1">
  <QUALF>101</QUALF>
  <QUANTITY>1000.000</QUANTITY>
  <UNIT>EA</UNIT>
</E1EDP32>
<E1EDP32 SEGMENT="1">
  <QUALF>102</QUALF>
  <QUANTITY>100.000</QUANTITY>
  <UNIT>EA</UNIT>
</E1EDP32>
<E1EDP32 SEGMENT="1">
  <QUALF>103</QUALF>
  <QUANTITY>10000.000</QUANTITY>
  <UNIT>KGM</UNIT>
</E1EDP32>
</E1EDP31>
<E1EDP31 SEGMENT="1">
  <ACTION>000</ACTION>
  <POSEX>000002</POSEX>
  <E1EDP19 SEGMENT="1">
    <QUALF>001</QUALF>
    <IDTNR>3456789</IDTNR>
    <KTEXT>FLUMED 75 MG ORAL</KTEXT>
  </E1EDP19>
  <E1EDP19 SEGMENT="1">
    <QUALF>010</QUALF>
    <IDTNR>C10947P83</IDTNR>
  </E1EDP19>
  <E1EDP32 SEGMENT="1">

```

```

    <QUALF>101</QUALF>
    <QUANTITY>14987.000</QUANTITY>
    <UNIT>EA</UNIT>
  </E1EDP32>
  <E1EDP32 SEGMENT="1">
    <QUALF>102</QUALF>
    <QUANTITY>0</QUANTITY>
    <UNIT>EA</UNIT>
  </E1EDP32>
  <E1EDP32 SEGMENT="1">
    <QUALF>103</QUALF>
    <QUANTITY>100890.000</QUANTITY>
    <UNIT>EA</UNIT>
  </E1EDP32>
</E1EDP31>
<E1EDP31 SEGMENT="1">
  <ACTION>000</ACTION>
  <POSEX>000004</POSEX>
  <E1EDP19 SEGMENT="1">
    <QUALF>001</QUALF>
    <IDTNR>3456789</IDTNR>
    <KTEXT>FLUMED 75 MG ORAL</KTEXT>
  </E1EDP19>
  <E1EDP19 SEGMENT="1">
    <QUALF>010</QUALF>
    <IDTNR>C58P585G46Z</IDTNR>
  </E1EDP19>
  <E1EDP32 SEGMENT="1">
    <QUALF>101</QUALF>
    <QUANTITY>153444.000</QUANTITY>
    <UNIT>EA</UNIT>
  </E1EDP32>
  <E1EDP32 SEGMENT="1">
    <QUALF>102</QUALF>
    <QUANTITY>100000</QUANTITY>
    <UNIT>EA</UNIT>
  </E1EDP32>
<E1EDP32 SEGMENT="1">

```

```
<QUALF>103</QUALF>  
<QUANTITY>543000</QUANTITY>  
<UNIT>EA</UNIT>  
</E1EDP32>  
</E1EDP31>  
<E1EDS02 SEGMENT="1">  
  <SUMID>028</SUMID>  
  <SUMME>001</SUMME>  
</E1EDS02>  
</IDOC>  
</PROACT01>
```

# ENUMERATIONS



# CountryCode

Choose from one of the following enumerators:

Data Code	Description
AD	ANDORRA
AE	UNITED ARAB EMIRATES
AF	AFGHANISTAN
AG	ANTIGUA AND BARBUDA
AI	ANGUILLA
AL	ALBANIA
AM	ARMENIA
AN	NETHERLANDS ANTILLES
AO	ANGOLA
AQ	ANTARCTICA
AR	ARGENTINA
AS	AMERICAN SAMOA
AT	AUSTRIA
AU	AUSTRALIA
AW	ARUBA
AX	ALAND ISLANDS
AZ	AZERBAIJAN
BA	BOSNIA AND HERZEGOVINA
BB	BARBADOS

Data Code	Description
BD	BANGLADESH
BE	BELGIUM
BF	BURKINA FASO
BG	BULGARIA
BH	BAHRAIN
BI	BURUNDI
BJ	BENIN
BL	SAINT BARTHELEMY
BM	BERMUDA
BN	BRUNEI DARUSSALAM
BO	BOLIVIA, PLURINATIONAL STATE OF
BR	BRAZIL
BS	BAHAMAS
BT	BHUTAN
BV	BOUVET ISLAND
BW	BOTSWANA
BY	BELARUS
BZ	BELIZE
CA	CANADA
CC	COCOS (KEELING) ISLANDS
CD	CONGO, THE DEMOCRATIC REPUBLIC OF THE
CF	CENTRAL AFRICAN REPUBLIC

Data Code	Description
CG	CONGO
CH	SWITZERLAND
CI	COTE D'IVOIRE
CK	COOK ISLANDS
CL	CHILE
CM	CAMEROON
CN	CHINA
CO	COLOMBIA
CR	COSTA RICA
CU	CUBA
CV	CAPE VERDE
CX	CHRISTMAS ISLAND
CY	CYPRUS
CZ	CZECH REPUBLIC
DE	GERMANY
DJ	DJIBOUTI
DK	DENMARK
DM	DOMINICA
DO	DOMINICAN REPUBLIC
DZ	ALGERIA
EC	ECUADOR
EE	ESTONIA

Data Code	Description
EG	EGYPT
EH	WESTERN SAHARA
ER	ERITREA
ES	SPAIN
ET	ETHIOPIA
FI	FINLAND
FJ	FIJI
FK	FALKLAND ISLANDS (MALVINAS)
FM	MICRONESIA, FEDERATED STATES OF
FO	FAROE ISLANDS
FR	FRANCE
GA	GABON
GB	UNITED KINGDOM
GD	GRENADA
GE	GEORGIA
GF	FRENCH GUIANA
GG	GUERNSEY
GH	GHANA
GI	GIBRALTAR
GL	GREENLAND
GM	GAMBIA
GN	GUINEA

Data Code	Description
GP	GUADELOUPE
GQ	EQUATORIAL GUINEA
GR	GREECE
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
GT	GUATEMALA
GU	GUAM
GW	GUINEA-BISSAU
GY	GUYANA
HK	HONG KONG
HM	HEARD ISLAND AND MCDONALD ISLANDS
HN	HONDURAS
HR	CROATIA
HT	HAITI
HU	HUNGARY
ID	INDONESIA
IE	IRELAND
IL	ISRAEL
IM	ISLE OF MAN
IN	INDIA
IO	BRITISH INDIAN OCEAN TERRITORY
IQ	IRAQ
IR	IRAN, ISLAMIC REPUBLIC OF

Data Code	Description
IS	ICELAND
IT	ITALY
KH	CAMBODIA
KY	CAYMAN ISLANDS
JE	JERSEY
JM	JAMAICA
JO	JORDAN
JP	JAPAN
KE	KENYA
KG	KYRGYZSTAN
KI	KIRIBATI
KM	COMOROS
KN	SAINT KITTS AND NEVIS
KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KZ	KAZAKHSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LB	LEBANON
LC	SAINT LUCIA
LI	LIECHTENSTEIN
LK	SRI LANKA

Data Code	Description
LR	LIBERIA
LS	LESOTHO
LT	LITHUANIA
LU	LUXEMBOURG
LV	LATVIA
LY	LIBYAN ARAB JAMAHIRIYA
MA	MOROCCO
MC	MONACO
MD	MOLDOVA, REPUBLIC OF
ME	MONTENEGRO
MF	SAINT MARTIN
MG	MADAGASCAR
MH	MARSHALL ISLANDS
MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
ML	MALI
MM	MYANMAR
MN	MONGOLIA
MO	MACAO
MP	NORTHERN MARIANA ISLANDS
MQ	MARTINIQUE
MR	MAURITANIA
MS	MONTSERRAT

Data Code	Description
MT	MALTA
MU	MAURITIUS
MV	MALDIVES
MW	MALAWI
MX	MEXICO
MY	MALAYSIA
MZ	MOZAMBIQUE
NA	NAMIBIA
NC	NEW CALEDONIA
NE	NIGER
NF	NORFOLK ISLAND
NG	NIGERIA
NI	NICARAGUA
NL	NETHERLANDS
NO	NORWAY
NP	NEPAL
NR	NAURU
NU	NIUE
NZ	NEW ZEALAND
OM	OMAN
PA	PANAMA
PE	PERU

Data Code	Description
PF	FRENCH POLYNESIA
PG	PAPUA NEW GUINEA
PH	PHILIPPINES
PK	PAKISTAN
PL	POLAND
PM	SAINT PIERRE AND MIQUELON
PN	PITCAIRN
PR	PUERTO RICO
PS	PALESTINIAN TERRITORY, OCCUPIED
PT	PORTUGAL
PW	PALAU
PY	PARAGUAY
QA	QATAR
RE	REUNION
RO	ROMANIA
RS	SERBIA
RU	RUSSIAN FEDERATION
RW	RWANDA
SA	SAUDI ARABIA
SB	SOLOMON ISLANDS
SC	SEYCHELLES
SD	SUDAN

Data Code	Description
SE	SWEDEN
SG	SINGAPORE
SH	SAINT HELENA, ASCENSION AND TRISTAN DA CUNHA
SI	SLOVENIA
SJ	SVALBARD AND JAN MAYEN
SK	SLOVAKIA
SL	SIERRA LEONE
SM	SAN MARINO
SN	SENEGAL
SO	SOMALIA
SR	SURINAME
ST	SAO TOME AND PRINCIPE
SV	EL SALVADOR
SY	SYRIAN ARAB REPUBLIC
SZ	SWAZILAND
TC	TURKS AND CAICOS ISLANDS
TD	CHAD
TF	FRENCH SOUTHERN TERRITORIES
TG	TOGO
TH	THAILAND
TJ	TAJIKISTAN
TK	TOKELAU

Data Code	Description
TL	TIMOR-LESTE
TM	TURKMENISTAN
TN	TUNISIA
TO	TONGA
TR	TURKEY
TT	TRINIDAD AND TOBAGO
TV	TUVALU
TW	TAIWAN, PROVINCE OF CHINA
TZ	TANZANIA, UNITED REPUBLIC OF
UA	UKRAINE
UG	UGANDA
UM	UNITED STATES MINOR OUTLYING ISLANDS
US	UNITED STATES
UY	URUGUAY
UZ	UZBEKISTAN
VA	HOLY SEE (VATICAN CITY STATE)
VC	SAINT VINCENT AND THE GRENADINES
VE	VENEZUELA, BOLIVARIAN REPUBLIC OF
VG	VIRGIN ISLANDS, BRITISH
VI	VIRGIN ISLANDS, U.S.
VN	VIET NAM
VU	VANUATU

Data Code	Description
WF	WALLIS AND FUTUNA
WS	SAMOA
XK	KOSOVO
YE	YEMEN
YT	MAYOTTE
ZA	SOUTH AFRICA
ZW	ZIMBABWE
ZM	ZAMBIA

# CurrencyCode

Choose from one of the following enumerators:

Data Code	Description
ADP	Andoran Peseta
AED	United Arab Emirates Dirham
AFN	Afghani
ALL	Albanian Lek
AMD	Armenian Dram
ANG	West Indian Guilder
AOA	Angolan Kwanza
AON	Angolan New Kwanza
AOR	Angolan Kwanza Reajustado
ARA	Argentinian Austral
ARS	Argentinian Pesos
ATS	Austrian Schilling
AUD	Australian Dollar
AWG	Aruban Guilder
AZM	Azerbaijan Manat
BAD	Bosnia-Herzegovinian Dinar
BAM	Bosnia and Herzegovina Convertible Mark
BBD	Barbados Dollar
BDT	Bangladesh Taka

Data Code	Description
BEF	Belgian Franc
BGL	Bulgarian Lev
BGN	Bulgarian Lev
BHD	Bahrain Dinar
BIF	Burundi Franc
BMD	Bermudan Dollar
BND	Brunei Dollar
BOB	Bolivian Peso
BRC	Brazilian Real
BRL	Brazilian Real
BSD	Bahamian Dollar
BTN	Bhutan Ngultrum
BWP	Botswana Pula
BYB	Belorussian Ruble
BYR	Belorussian Ruble
BZD	Belize Dollar
CAD	Canadian Dollar
CDF	Congolese Franc
CHF	Swiss Franc
CLP	Chilean Peso
CNY	Chinese Renminbi Yuan
CNY	Chinese Renminbi Yuan

Data Code	Description
COP	Columbian Peso
CRC	Costa Rica Colon
CUP	Cuban Peso
CVE	Cape Verde Escudo
CYP	Cyprus Pound
CZK	Czech Krona
DEM	German Mark
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
ECS	Ecuador Sucre
EEK	Estonian Krone
EGP	Egyptian Pound
ERN	Eritrean Nafka
ESP	Spanish Peseta
ETB	Ethiopian Birr
EUR	Euro (EMU currency as of 01/01/1999)
FIM	Finnish Mark
FJD	Fiji Dollar
FKP	Falkland Pound
FRF	French Franc

Data Code	Description
GBP	British Pound
GEK	Georgian Kupon
GEL	Georgian Lari
GHC	Ghanian Cedi
GIP	Gibraltar Pound
GMD	Gambian Dalasi
GNF	Guinea Franc
GRD	Greek Drachma
GTQ	Guatemalan Quetzal
GWP	Guinea Peso
GYD	Guyanese Dollar
HKD	Hong Kong Dollar
HNL	Honduran Lempira
HRK	Croatian Kuna
HTG	Haitian Gourde
HUF	Hungarian Forint
IDR	Indonesian Rupiah
IEP	Irish Pound
IGP	American Dollar
ILS	Israeli Scheckel
INR	Indian Rupee
IQD	Iraqi Dinar

Data Code	Description
IRR	Iranian Rial
ISK	Iceland Krona
ITL	Italian Lira
JMD	Jamaican Dollar
JOD	Jordanian Dinar
JPY	Japanese Yen
KES	Kenyan Shilling
KGS	Kyrgyzstan Som
KHR	Cambodian Riel
KIS	Kirghizstan Som
KMF	Comoros Franc
KPW	North Korean Won
KRW	South Korean Won
KWD	Kuwaiti Dinar
KYD	Cayman Dollar
KZT	Kazakhstani Tenge
LAK	Laotian Kip
LBP	Lebanese Pound
LKR	Sri Lankan Rupee
LRD	Liberian Dollar
LSL	Lesotho Loti
LTL	Lithuanian Lita

Data Code	Description
LUF	Luxembourgian Franc
LVL	Latvian Lat
LYD	Libyan Dinar
MAD	Moroccan Dirham
MDL	Moldavian Lei
MGF	Madagascar Franc
MKD	Macedonian Denar
MMK	Myanmar Kyat
MNT	Mongolian Tugrik
MOP	Macao Pataca
MRO	Mauritanian Ouguiya
MTL	Maltese Lira
MUR	Mauritian Rupee
MVR	Maldiva Rufiyaa
MWK	Malawi Kwacha
MXN	Mexican Peso
MXP	Mexican Peso (old)
MYR	Malaysian Ringgit
MZM	Mozambique Metical
NAD	Namibian Dollar
NGN	Nigerian Naira
NIC	Nicaraguan Cordoba

Data Code	Description
NIO	Nicaraguan Cordoba Oro
NLG	Dutch Guilder
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollars
OMR	Omani Rial
PAB	Panamanian Balboa
PEI	Peruvian Inti
PEN	Peruvian New Sol
PGK	Papua New Guinea Kina
PHP	Philippino Peso
PKR	Pakistani Rupee
PLN	Polish Zloty (new)
PLZ	Polish Zloty
PTE	Portuguese Escudo
PYG	Paraguayan Guarani
QAR	Qatar Riyal
ROL	Roumanian Lei
RON	Roumanian Lei - 2005
RUB	Russian Ruble (old)
RUR	Russian Ruble
RWF	Rwanda Franc

Data Code	Description
SAR	Saudi Riyal
SBD	Solomon Islands Dollar
SCR	Seychelles Rupee
SDP	Sudanese Pound
SEK	Swedish Krona
SGD	Singapore Dollar
SHP	St Helena Pound
SIT	Slovenian Tolar
SKK	Slovakian Krona
SLL	Leone
SOS	Somalian Shilling
SRG	Surinam Guilder
STD	Sao Tome / Principe Dobra
SUR	Russian Ruble (old)
SVC	El Salvador Colon
SYP	Syrian Pound
SZL	Swaziland Lilangeni
THB	Thailand Bhat
TJR	Tajikistani Ruble
TJS	Tajikistani Somoni
TMM	Turkmenistani Manat
TND	Tunisian Dinar

Data Code	Description
TOP	Tongan Pa'anga
TPE	Timor Escudo
TRL	Turkish Lira
TTD	Trinidad and Tobago Dollar
TWD	New Taiwan Dollar
TZS	Tanzanian Shilling
UAH	Ukraine Hryvnia
UAK	Ukrainian Karbowanez
UGS	Ugandan Shilling
UGX	Ugandan Shilling
UNI	Universal Currency
USD	American Dollar
UYP	Uruguayan New Peso
UYU	Uruguayan Peso (new)
UZS	Uzbekistan Sum
VEB	Venezuelan Bolivar
VND	Vietnamese Dong
VUV	Vanuatu Vatu
WST	Samoan Tala
XAF	Gabon C.f.A Franc
XCD	East Carribean Dollar
XOF	Benin C.f.A. Franc

Data Code	Description
XPF	French Franc (Pacific Islands)
XPF	CFP Franc
YER	Yemeni Ryal
YUM	New Yugoslavian Dinar
ZAR	South African Rand
ZMK	Zambian Kwacha
ZRN	Zairean new zaire
ZRZ	Zairean zaire
ZWD	Zimbabwean Dollar

# Debit/Credit

Choose from one of the following enumerators:

Data Code	Description
Credit	Value is a Credit or (+).
Debit	Value is a Debit or (-).

# InventoryAdjustmentType

Choose from one of the following enumerators:

Data Code	Description
101	GR goods receipt.
102	GR for PO reversal.
103	GR into blocked stock.
104	GR to blocked reverse.
105	GR from blocked stock.
106	Reverse GR from blocked.
107	GR to blocked valued stock.
108	Reverse GR to blocked valued stock.
109	GR from blocked valued stock.
110	Reverse GR from blocked valued stock.
121	GR subsequent adjustment.
122	Reverse return to vendor.
131	Goods receipt.
132	Reverse goods reverse.
161	GR returns.
162	GR returns reversal.
231	GI for sales order.
232	Reverse for sales order.
261	GI for order.

Data Code	Description
262	Reverse for order.
311	Transfer within plant.
312	Reverse transfer in plant.
321	Transfer quality to unrestricted.
322	Reverse quality to unr.
323	Transfer quality in plant.
324	Reverse quality in plant.
325	Transfer blocked in plant.
326	Reverse blocked in plant.
331	GI to sampling Quality Inspection.
332	Reverse to sampling Quality Inspection.
333	GI to sampling unrestricted.
334	Reverse to sampling unrestricted.
335	GI to sampling blocked.
336	Reverse to sampling blocked.
341	Transfer unrestricted to restricted.
342	Reverse restricted to unrestricted.
343	Transfer blocked to unrestricted.
344	Reverse blocked to unrestricted.
349	Transfer blocked to Quality Inspection.
350	Reverse blocked to Quality Inspection.
351	Transfer to stock in transit.

Data Code	Description
352	Reverse to stock in transit.
401	Transfer posting from Sales Order.
402	Reverse Transfer posting from Sales Order.
403	Transfer posting from consignment.
404	Reverse Transfer posting from consignment.
411	Transfer storage location to storage location.
412	Reverse storage location to storage location.
413	Transfer storage location to sales order.
414	Reverse storage location to sales order.
451	GI returns.
452	Reverse returns.
453	Transfer posting returns to own.
454	Transfer posting own to returns.
455	Stock transfer returns.
456	Reverse stock transfer returns.
457	Transfer posting Returns to own Quality Inspection.
458	Transfer posting Own Quality Inspection to returns.
459	Transfer posting Returns to own blocked stock.
460	Transfer posting Own blocked to returns.
503	Receipt to Quality Inspection.
504	Reverse receipt to Quality Inspection.
505	Receipt to blocked.

Data Code	Description
506	Reverse receipt to blocked.
541	GI warehouse to subcontracting stock.
542	Reverse subcontracting stock to warehouse.
543	GI issue sales order stock.
544	GI receipt sales order stock.
551	GI scrapping.
552	Reverse scrapping.
553	GI scrapping Quality Inspection.
554	Reverse scrapping Quality Inspection.
555	GI scrapping blocked.
556	Reverse scrapping blocked.
561	Initial stock entry.
562	Reverse initial entry stock balance.
701	GR physical inventory: warehouse.
702	GI physical inventory: warehouse.
703	GR physical inventory: Quality Inspection.
704	GI physical inventory: Quality Inspection.
707	GR physical inventory: blocked.
708	GI physical inventory: blocked.
711	Unrestricted negative stock.
712	Reversal of unrestricted negative.
717	Blocked negative stock.

Data Code	Description
718	Reversal of blocked negative.

# InventoryAdjustmentType (.xml)

Choose from one of the following enumerators:

Data Code	Description
BlockedNegative	BlockedNegative
BlockedPositive	BlockedPositive
BlockedToQuality	BlockedToQuality
BlockedToUnrestricted	BlockedToUnrestricted
Consumption	Consumption
GIBlockedPhysical	GIBlockedPhysical
GIPhysicalQuality	GIPhysicalQuality
GIPhysicalWarehouse	GI physical inventory: warehouse
GISubcontract	GISubcontract
GoodsIssue	GoodsIssue
GoodsReceipt	GoodsReceipt
GoodsReceipt	GoodsReceipt
GRBlockedPhysical	GRBlockedPhysical
GRFromBlocked	GRFromBlocked
GRFromBlockedValuated	GRFromBlockedValuated
GRPhysicalQuality	GRPhysicalQuality
GRPhysicalWarehouse	GR physical inventory: warehouse
GRReturns	GRReturns
GRSubsequentAdjustment	GRSubsequentAdjustment

Data Code	Description
GRToBlocked	GRToBlocked
GRToBlockedValuated	GRToBlockedValuated
InitialEntry	InitialEntry
OwnReturns	OwnReturns
OwnReturnsBlocked	OwnReturnsBlocked
OwnReturnsQuality	OwnReturnsQuality
QualityToUnrestricted	QualityToUnrestricted
ReceiptBlocked	ReceiptBlocked
ReceiptQuality	ReceiptQuality
Returns	Returns
ReverseBlockedInPlant	ReverseBlockedInPlant
ReverseBlockedToQuality	ReverseBlockedToQuality
ReverseBlockedToUnrestricted	ReverseBlockedToUnrestricted
ReverseConsignment	ReverseConsignment
ReverseConsumption	ReverseConsumption
ReverseGISubcontract	ReverseGISubcontract
ReverseGoodsIssue	ReverseGoodsIssue
ReverseGoodsReceipt	ReverseGoodsReceipt
ReverseGoodsReceipt	ReverseGoodsReceipt
ReverseGRFromBlocked	ReverseGRFromBlocked
ReverseGRFromBlockedValuated	ReverseGRFromBlockedValuated
ReverseGRReturns	ReverseGRReturns

Data Code	Description
ReverseGRToBlocked	ReverseGRToBlocked
ReverseGRToBlockedValuated	ReverseGRToBlockedValuated
ReverseInitialEntry	ReverseInitialEntry
ReverseOwnReturns	ReverseOwnReturns
ReverseOwnReturnsBlocked	ReverseOwnReturnsBlocked
ReverseOwnReturnsQuality	ReverseOwnReturnsQuality
ReverseQualityInPlant	ReverseQualityInPlant
ReverseQualityToUnrestricted	ReverseQualityToUnrestricted
ReverseReceiptBlocked	ReverseReceiptBlocked
ReverseReceiptQuality	ReverseReceiptQuality
ReverseReturns	ReverseReturns
ReverseSalesOrder	ReverseSalesOrder
ReverseSalesOrder	ReverseSalesOrder
ReverseSamplingBlocked	ReverseSamplingBlocked
ReverseSamplingQuality	ReverseSamplingQuality
ReverseSamplingUnrestricted	ReverseSamplingUnrestricted
ReverseScrapBlocked	Reverse scrapping blocked
ReverseScrapQuality	ReverseScrapQuality
ReverseScrapUnrestricted	Reverse scrapping
ReverseStockInTransit	ReverseStockInTransit
ReverseStockTransferReturns	ReverseStockTransferReturns
ReverseStorageLocationSalesOrder	ReverseStorageLocationSalesOrder

Data Code	Description
ReverseStorageLocationToStorageLocation	ReverseStorageLocationToStorageLocation
ReverseTransferWithinPlant	ReverseTransferWithinPlant
ReverseUnrestrictedToUnrestricted	ReverseUnrestrictedToUnrestricted
ReverseVendorReturn	ReverseVendorReturn
SalesOrder	SalesOrder
SamplingBlocked	SamplingBlocked
SamplingQuality	SamplingQuality
SamplingUnrestricted	SamplingUnrestricted
ScrapBlocked	GI scrapping blocked
ScrapQuality	ScrapQuality
ScrapUnrestricted	GI scrapping
StockTransferReturns	StockTransferReturns
StorageLocationSalesOrder	StorageLocationSalesOrder
StorageLocationToStorageLocation	StorageLocationToStorageLocation
TransferBlockedInPlant	TransferBlockedInPlant
TransferConsignment	TransferConsignment
TransferQualityInPlant	TransferQualityInPlant
TransferSalesOrder	TransferSalesOrder
TransferStockInTransit	TransferStockInTransit
TransferWithinPlant	TransferWithinPlant
UnrestrictedNegative	UnrestrictedNegative
UnrestrictedPositive	UnrestrictedPositive

Data Code	Description
UnrestrictedToRestricted	UnrestrictedToRestricted

# MaterialType

Choose from one of the following enumerators:

Data Code	Description
API	Active Pharmaceutical Ingredient.
CM	Component material.
FG	Finished Goods.
RM	Raw material.
WIP	Work in Process.

# MovementIndicator (IDoc)

Choose from one of the following enumerators:

Data Code	Description
B	Goods movement for purchase order.
F	Goods movement for production order.
K	Goods movement for kanban requirement (WM - internal only).
L	Goods movement for delivery note.
O	Subsequent adjustment of "material-provided" consumption.
W	Subsequent adjustment of proportion/product unit material.

# MovementIndicator (.xml)

Choose from one of the following enumerators:

Data Code	Description
Delivery	Goods movement for delivery note.
Kanban	Goods movement for kanban requirement (WM - internal only).
MaterialProvided	Subsequent adjustment of "material-provided" consumption.
Proportion	Subsequent adjustment of proportion/product unit material.
PurchaseOrder	Goods movement for purchase order.
WorkOrder	Goods movement for production order.

# PlantIdentifier

Choose from one of the following enumerators:

Data Code	Description
1019	Patheon Caguas
1038	Patheon Manati
1044	Patheon Cincinatti
1046	DSM - Greenville
1063	Lonza - Conshohocken
1064	Banner - High Point
1077	Rovi
1080	Patheon - Toronto
1081	Anderson - Rockford
1082	Sharp - Conshohocken
1083	Baxter - Jayuya
1084	Oso - Albuquerque
1085	Micron - Exton
1086	Hollister Stier
1191	Catalent-Swindon (Maci)
1201	ExM MSDIS Generic Germany Plant
1202	Micron Technologies Ltd.
1203	Catalent - Swindon
1204	BASF - Switzerland

Data Code	Description
1205	Lonza - Visp (Switzerland)
1206	Patheon - Ferrentino
1292	RxPak
1293	Catalent - Somerset
1311	MSD Switzerland GmbH - Sion
1313	Alkermes
1314	Laboratoire UNITHER
1315	Aesica
1318	Aesica
1427	Schiphol
1428	Carbogen-AMCIS
1456	Patheon - Whitby
1512	CIMA
1528	Patheon - Whitby
1529	Baxter
1546	Patheon - Burgoin
1547	Catalent - Woodstock (Azasite)
1550	Patheon - Swindon
1552	Catalent - St. Petersburg
1553	Alkermes - Ireland
1555	MSDIS - Aesica Zwickau
1556	Catalent - Woodstock (Cosopt)

Data Code	Description
1605	MSD IS Hameln
1606	MSD IS Orion
1610	MSD IS Generic Czech
1612	MSD IS Generic UK
1613	MSD IS Generic France
1614	MSD IS Generic Italy
1625	Baxter MSDIS
1629	Famar
1632	Baxter MSDIG
1635	Almac
1638	3M
1639	CrystalPharma
1644	Alkermes

# QuantityType

Choose from one of the following enumerators:

Data Code	Description
002	Quantity on order - deprecated.
101	Quantity on hand.
102	Quantity in inspection.
103	Quantity on hold.

# ReasonCode (IDoc)

Choose from one of the following enumerators:

Data Code	Description
0001	Damages
0002	Forecast Management.
0003	Manufacturing Process Failure.
0004	Manufacturing Equipment Failure.
0005	Raw Material Out of spec.
0006	Product Lifecycle Management.
0007	Regulatory issues.
0008	Returns
0009	Shelf Life/Short Date.
0010	Other
0101	Not identifiable.
0103	Spoiled
0261	Unplanned use.
0262	Reversal Reason.
0543	Damage in transport.
0544	Damage in return transport.

# ReasonCode (IDoc - Reversal)

Choose from one of the following enumerators:

Data Code	Description
0001	Damages
0002	Forecast Management.
0003	Manufacturing Process Failure.
0004	Manufacturing Equipment Failure.
0101	Not identifiable.
0103	Spoiled
0261	Unplanned use.
0262	Reversal Reason.
0543	Damage in transport.
0544	Damage in return transport.

# ReasonCode (.xml)

Choose from one of the following enumerators:

Data Code	Description
Bad	Bad Product.
Damaged	Damaged goods.
DamageReturn	Damage in return transport.
DamageTransport	Damage in transport.
Incomplete	Incomplete
NotIdentified	Not identifiable.
Quality	Poor quality, shrinkage, wrongly placed in storage.
Reversal	Reversal Reason.
Scrap	Scrapped
Spoiled	Spoiled
Unplanned	Unplanned use.
Wrong	Delivered wrong product.

# SpecialStockIndicator (IDoc)

Choose from one of the following enumerators:

Data Code	Description
E	Orders on hand.
F	SC Customer Order Stock.
I	SC RTP.
J	SC Vendor consignment.
K	Consignment (vendor).
M	Return transfer package vendor.
O	Parts provided vendor.
P	Pipeline material.
Q	Project stock.
R	SC Project Stock.
V	Return package with customer.
W	Consignment (customer).
Y	Shipping unit (warehouse).

# SpecialStockIndicator (.xml)

Choose from one of the following enumerators:

Data Code	Description
ConsignCustomer	Consignment (customer).
ConsignSCVendor	SC Vendor consignment.
ConsignVendor	Consignment (vendor).
CustOrderStock	SC Customer Order Stock.
OnHand	Orders on hand.
Parts	Parts provided vendor.
Pipeline	Pipeline material.
Project	Project stock.
ReturnPackCustomer	Return package with customer.
ReturnPackVendor	Return transfer package vendor.
RTP	SC RTP.
SCProjectStock	SC Project Stock.
ShipUnit	Shipping unit (warehouse).

# StockQtyType

Choose from one of the following enumerators:

Data Code	Description
IN_INSPECTION	Quantity in inspection.
ON_HAND	On hand quantity.
ON_HOLD	On hold quantity.
ON_ORDER	Quantity on order.

# StockTypeIndicator (IDoc)

Choose from one of the following enumerators:

Data Code	Description
2	Quality inspection.
3	Blocked
F	Unrestricted-use.
S	Blocked
X	Quality inspection.

# StockTypeIndicator (.xml)

Choose from one of the following enumerators:

Data Code	Description
Blocked	Blocked
Blocked3	Blocked
Quality	Quality inspection.
Quality2	Quality inspection.
Unrestricted	Unrestricted-use.

# SumID

Choose from one of the following enumerators:

Data Code	Description
001	Number of items.
002	Net Document Value.
003	Gross Document Value.
004	Total of All Quantities.
028	Number of IDocs.

# UnitOfMeasure (IDoc)

Choose from one of the following enumerators:

Data Code	Description
4G	Microliter
AM	Ampoule
ANN	Years
AV	Capsule
BE	Bundle
BG	Bag
BO	Bottle
BX	Box
CA	Can
CG	Card, Blister
CLT	Centiliter
CMK	Square Centimeter
CMQ	Cubic Centimeter
CMT	Centimeter
CQ	Cartridge
CR	Crate
CS	Case
CT	Carton
CY	Cylinder

Data Code	Description
DI	Dispenser
DLT	Deciliter
DMT	Decimeter
DR	Drum
DS	Display
DZN	Dozen
EA	Each
FOT	Foot
FTK	Square Foot
FTQ	Cubic Feet
GL	Gram/liter
GLL	Gallon
GRM	Gram
GRO	Gross
HF	Hundred Feet
HLT	Hectoliter
HUR	Hours
INH	Inch
INK	Square Inch
INQ	Cubic Inches
K6	Kiloliters
KGM	Kilogram

Data Code	Description
KMT	Kilometers
KT	Kit
LBR	Pounds
LF	Linear Foot
LO	Lot (unit of procurement)
LTR	Liter
LY	Linear Yard
MC	Microgram
MGM	Milligram
MIL	Thousand
MLT	Milliliter
MMT	Millimeter
MMQ	Cubic Millimeter
MON	Months
MTK	Square Meter
MTQ	Cubic Meters
MTR	Meter
ONZ	Ounces
OZA	Fluid Ounce
PCE	Piece
PF	Pallet
PK	Package

Data Code	Description
PK	Pack (PAK)
PO	Pouch
PR	Pair
PT	Pint
PU	Tray
QT	Quart
RO	Roll
SET	Set
SMI	Statute Mile
ST	Sheet
T3	Thousand Pieces
TU	Tube
U2	Tablet
UM	Million
UN	Unit
VI	Vial
WEE	Week
YDK	Square Yard
YRD	Yard

# UnitOfMeasure (IDoc - Reversal)

Choose from one of the following enumerators:

Data Code	Description
4G	Microliter
AM	Ampoule
ANN	Years
AV	Capsule
BE	Bundle
BG	Bag
BO	Bottle
BX	Box
CA	Can
CG	Card, Blister
CLT	Centiliter
CMK	Square Centimeter
CMQ	Cubic Centimeter
CMT	Centimeter
CQ	Cartridge
CR	Crate
CS	Case
CT	Carton
CY	Cylinder

Data Code	Description
DAY	Days
DI	Dispenser
DLT	Deciliter
DMT	Decimeter
DR	Drum
DS	Display
DZN	Dozen
EA	Each
FOT	Foot
FTK	Square Foot
FTQ	Cubic Feet
GL	Gram/liter
GLL	Gallon
GRM	Gram
GRO	Gross
HF	Hundred Feet
HLT	Hectoliter
HUR	Hours
INH	Inch
INK	Square Inch
INQ	Cubic Inches
K6	Kiloliters

Data Code	Description
KGM	Kilogram
KMT	Kilometers
KT	Kit
LBR	Pounds
LF	Linear Foot
LO	Lot (unit of procurement)
LTR	Liter
LY	Linear Yard
MC	Microgram
MGM	Milligram
MIL	Thousand
MLT	Milliliter
MMT	Millimeter
MON	Months
MTK	Square Meter
MTQ	Cubic Meters
MTR	Meter
ONZ	Ounces
OZA	Fluid Ounce
PCE	Piece
PF	Pallet
PK	Package

Data Code	Description
PK	Pack (PAK)
PO	Pouch
PR	Pair
PT	Pint
PU	Tray
QT	Quart
RO	Roll
SET	Set
SMI	Statute Mile
ST	Sheet
T3	Thousand Pieces
TU	Tube
U2	Tablet
UM	Million
UN	Unit
VI	Vial
WEE	Weeks
YDK	Square Yard
YRD	Yard

# UnitOfMeasure (.csv)

Choose from one of the following enumerators:

Data Code	Description
02	Statute Mile
4G	Microliter
AM	Ampoule
AV	Capsule
BD	Bundle
BG	Bag
BO	Bottle
BX	Box
C3	Centiliter
CA	Case
CC	Cubic Centimeter
CF	Cubic Feet
CG	Card, Blister
CI	Cubic Inches
CL	Cylinder
CM	Centimeter
CN	Can
CP	Crate
CQ	Cartridge

Data Code	Description
CR	Cubic Meters
CT	Carton
DA	Day
DI	Dispenser
DK	Kilometers
DL	Deciliter
DM	Decimeter
DR	Drum
DS	Display
DZ	Dozen
EA	Each
FO	Fluid Ounce
FT	Foot
GA	Gallon
GL	Gram/liter
GR	Gram
GS	Gross
H4	Hectoliter
HF	Hundred Feet
HR	Hours
IN	Inch
K6	Kiloliters

Data Code	Description
KG	Kilogram
KT	Kit
LB	Pounds
LF	Linear Foot
LO	Lot (unit of procurement)
LT	Liter
LY	Linear Yard
MC	Microgram
ME	Milligram
ML	Milliliter
MM	Millimeter
MO	Months
MR	Meter
OZ	Ounces
PC	Piece
PF	Pallet
PH	Pack (PAK)
PK	Package
PR	Pair
PT	Pint
QT	Quart
RL	Roll

Data Code	Description
SC	Square Centimeter
SF	Square Foot
SH	Sheet
SI	Square Inch
SM	Square Meter
ST	Set
SY	Square Yard
T3	Thousand Pieces
TB	Tube
TH	Thousand
TY	Tray
U2	Tablet
UM	Million
UN	Unit
V2	Pouch
VI	Vial
WK	Week
YD	Yard
YR	Years

# UnitOfMeasure (.xml)

Choose from one of the following enumerators:

Data Code	Description
02	Statute Mile
4G	Microliter
AM	Ampoule
AV	Capsule
BD	Bundle
BG	Bag
BO	Bottle
BX	Box
C3	Centiliter
CA	Case
CC	Cubic Centimeter
CF	Cubic Feet
CG	Card, Blister
CH	Container
CI	Cubic Inches
CL	Cylinder
CM	Centimeter
CN	Can
CP	Crate

Data Code	Description
CQ	Cartridge
CR	Cubic Meters
CT	Carton
DA	Dispenser
DI	Dispenser
DK	Kilometers
DL	Deciliter
DM	Decimeter
DR	Drum
DS	Display
DZ	Dozen
EA	Each
FO	Fluid Ounce
FT	Foot
GA	Gallon
GL	Gram/liter
GR	Gram
GS	Gross
H4	Hectoliter
HF	Hundred Feet
HR	Hours
IN	Inch

Data Code	Description
K6	Kiloliters
KG	Kilogram
KT	Kit
LB	Pounds
LF	Linear Foot
LO	Lot (unit of procurement)
LT	Liter
LY	Linear Yard
MC	Microgram
ME	Milligram
ML	Milliliter
MM	Millimeter
MO	Month
MR	Meter
OZ	Ounces
P1	Percent
PC	Piece
PF	Pallet
PH	Pack (PAK)
PK	Package
PR	Pair
PT	Pint

Data Code	Description
QT	Quart
RL	Roll
SC	Square Centimeter
SF	Square Foot
SH	Sheet
SI	Square Inch
SM	Square Meter
SP	Shelf Package
ST	Set
SY	Square Yard
SZ	Syringe
T3	Thousand Pieces
TB	Tube
TH	Thousand
TS	Thousand Square Feet
TY	Tray
U2	Tablet
UM	Million
UN	Unit
US	Dosage Form
V2	Pouch
VI	Vial

Data Code	Description
WK	Week
YD	Yard
YR	Year

# UnitOfMeasure (.xml - Reversal)

Choose from one of the following enumerators:

Data Code	Description
02	Statute Mile
4G	Microliter
AM	Ampoule
AV	Capsule
BD	Bundle
BG	Bag
BO	Bottle
BX	Box
C3	Centiliter
CA	Case
CC	Cubic Centimeter
CF	Cubic Feet
CG	Card, Blister
CI	Cubic Inches
CL	Cylinder
CM	Centimeter
CN	Can
CP	Crate
CQ	Cartridge

Data Code	Description
CR	Cubic Meters
CT	Carton
DA	Day
DI	Dispenser
DK	Kilometers
DL	Deciliter
DM	Decimeter
DR	Drum
DS	Display
DZ	Dozen
EA	Each
FO	Fluid Ounce
FT	Foot
GA	Gallon
GL	Gram/liter
GR	Gram
GS	Gross
H4	Hectoliter
HF	Hundred Feet
HR	Hours
IN	Inch
K6	Kiloliters

Data Code	Description
KG	Kilogram
KT	Kit
LB	Pounds
LF	Linear Foot
LO	Lot (unit of procurement)
LT	Liter
LY	Linear Yard
MC	Microgram
ME	Milligram
ML	Milliliter
MM	Millimeter
MO	Months
MR	Meter
OZ	Ounces
PC	Piece
PF	Pallet
PH	Pack (PAK)
PK	Package
PR	Pair
PT	Pint
QT	Quart
RL	Roll

Data Code	Description
SC	Square Centimeter
SF	Square Foot
SH	Sheet
SI	Square Inch
SM	Square Meter
ST	Set
SY	Square Yard
T3	Thousand Pieces
TB	Tube
TH	Thousand
TY	Tray
U2	Tablet
UM	Million
UN	Unit
V2	Pouch
VI	Vial
WK	Week
YD	Yard
YR	Years

# UsageIndicator (IDoc)

Choose from one of the following enumerators:

Data Code	Description
<empty>	Production system.
X	Test system.

# UsageIndicator (.csv & .xml)

Choose from one of the following enumerators:

Data Code	Description
Production	Production system.
Test	Test system.

# GLOSSARY



# A

## Administration

An application utility that includes tools for configuring global company settings for use across all TraceLink applications. Users that have access to this utility are considered Administrators.

## Advance Ship Notice (ASN)

A notification of pending deliveries, usually in an electronic format.

## Aggregation

The process of recording the serial number of a container along with the serial numbers of its contents; often referred to as a parent/child relationship, or a serialized container to content relationship.

## Agile Process Teams (APT)

A multienterprise application that enables cross-enterprise teams to digitally execute, manage, and track shared processes to increase speed and improve effectiveness of the supply chain.

## Alphanumeric

Character set made up of digits and letters of the alphabet.

## Applicability Statement 2 (AS2)

The protocol used to securely transmit data over the internet in the preferred method for exchanging Electronic Data Interchange (EDI) transactions.

## Application Administration

An Opus enterprise app, provided by TraceLink, that supports the routing of event handlers and message handlers to the correct app.

## Application Administrator

A member of a Network Company that has the permissions to perform administration functions, specific to an app. App Administrators can be members of app Owner companies to manage their apps and can also be members of app Partner companies to manage the partner side of the app, typically with limited capabilities.

## Application Identifier (AI)

A GS1 term for numeric prefixes used in barcodes and Electronic Product Code (EPC)/Radio Frequency Identification (RFID) tags to define the meaning and format of encoded data elements.

## Application Master

The master metadata store for all of the application metadata.

## Application Metadata

Defines the metadata of an application or platform service. The goals of accelerating application development, facilitating the management of apps, and presenting a developer with a visual Solution Builder require that much of the behavior of an application be defined via metadata. See: Solution Builder

## Application Program Interface (API)

The interface that allows other software programs to interact with applications. Members on the Network can generate a series of request and response messages corresponding to various TraceLink applications (whether synchronously or asynchronously).

## Application Repository

Defines where application images are stored so they can be deployed as running code.

## Application(s)/App(s)

A product offering that includes one or more functions to fulfill customer/market needs. Applications are offered in various forms including, but not restricted to, web applications, mobile apps, APIs, and SDKs to appeal to different user needs. Applications are currently developed by TraceLink and in the future can be developed by third parties on the TraceLink Platform.

### **APT App Administrator / Business Technology Specialist**

A member of APT with permissions to configure the app, data models, workflows, and Experiences in support of the company's business processes. They also define Process Teams, create additional roles, assign process team admins, and add/remove user access to the APT app.

### **Asynchronous Message**

An integration message (formerly known as transaction) is used as an interface to exchange data between two companies. Asynchronous messages do not fully process in real-time.

### **Attribute**

One of the three primitive building blocks used to create the data model. (The others are object type and relationship.) An attribute is a characteristic or inherent part of an object type or relationship. The specific object instance of an attribute is known as a property. Example attributes include: Username, Serial Number, Product Identifier.

### **Authenticate**

The practice of checking a unique identifier against a set of captured serialized data to determine its authenticity.

### **Authorization Service**

An Opus system app, provided by TraceLink, that governs what authenticated users are authorized to do within the context of an app through enforcement points and policies.

### **Authorized Distributor of Record (ADR)**

A wholesale distributor that a manufacturer designates or authorizes to distribute its products.

### **Auto ID**

Method of automatically capturing data encoded on items and containers, and entering that data directly into computer systems without human involvement.

## **B**

### **Bahrain Compliance**

A TraceLink compliance reporting app that searches, views, and generates reports required by the Bahrain National Health Regulatory Authority (NHRA).

### **Base Solution**

The solution created and released by the app developer, which serves as the default solution that is automatically applied to the network when a company licenses an app (e.g. TraceLink created and released the Supply Chain Work Management solution for the Agile Process Teams app).

### **Batch**

A group of products associated with a manufacturing or packaging operation. Synonymous with lot.

### **Bill of Lading (BoL)**

A document issued by a carrier which details a shipment of merchandise and gives the shipment title to a specified party.

### **Bootstrapping**

A process in which the kernel is installed and made operational for the first time so that the rest of the system can be built using the TDE.

### **Brazil Compliance**

A TraceLink compliance reporting app that searches, views, and generates reports required by ANVISA.

### **Brazil Product Track**

TraceLink app. Tracks movement of products within the Brazil supply chain.

### **Brazilian Health Surveillance Agency (ANVISA)**

The Brazilian Regulatory Agency responsible for the approval and supervision of food, cosmetics, tobacco, pharmaceuticals, health services, and medical devices.

### **Bright Stock**

An approach to labeling and packaging operations in which products are produced in large batches, stored in unlabeled containers, and then labeled just prior to shipment.

### **Build Pipeline**

Defines a module's build and deploy processes in the TDE to enable continuous delivery.

### **Bundle**

A group of items held together, usually by shrink wrap. Synonymous with Inner Pack.

### **Business-to-Business (B2B)**

Interactions that support the transfer of standardized interchange files up to an enterprise's EDI system. B2B interactions are not integrated with manufacturing, warehouse, or other backend business systems.

## **C**

### **Cadastro Nacional da Pessoa Jurídica (National Registry for Legal Entities) (CNPJ)**

An identification number issued to Brazilian companies by the Secretariat of the Federal Revenue of Brazil.

### **Cardinality**

How many instances of a type may exist on either the FROM or TO ends of a relationship. The cardinality key defines the relationship as one to one, one to many,

many to one, or many to many.

### **Case**

A container of product eatches (e.g. cartons, packages, bottles) which may or may not be bundled.

### **Catalog Exchange Manager**

An Opus system app used to manage global catalog items available to all companies on all environments.

### **Change Management**

A TraceLink app that allows the users to manage and view supplier changes.

### **Check Digit**

Redundancy check used for error detection of identification numbers, used in National Drug Code (NDC) numbers, US Drug Enforcement Administration (DEA) numbers, Global Trade Item Number (GTIN-14) identifiers, and Serial Shipping Container Codes (SSCC).

### **China Compliance**

A TraceLink compliance reporting app that integrates with the National Medical Products Administration (NMPA) reporting system directly or through a local partner.

### **China Electronic Data Monitoring Code (CN\_EDMC)**

The encoding format for serial numbers, issued by the Chinese government, used for products sold in China.

### **China Food and Drug Administration (CFDA)**

Former organization in China responsible for ensuring pharmaceutical quality. Replaced by National Medical Products Administration in 2018. See NMPA.

### **Cluster**

A logical grouping of containers that you can place tasks on. A cluster represents an instance of an AWS EKS controller.

**Collection**

A group of objects.

**Commissioning**

Process of associating a serial number to a particular object (product or container).

**Community**

A TraceLink app that allows companies within the TraceLink Network to connect and engage with each other. The Community Hub also allows non-TraceLink Members to search, verify, and track specific products.

**Company Administration**

An Opus enterprise app, provided by TraceLink, that supports various administrative functions for System Administrators. These functions include user and role management across applications, network-level user and role management, partner management, location management, and maintaining company information.

**Company Administrator**

A member of a Network Company that has the permissions to perform system administration functions for apps to which the company has access.

**Compliance Reporting**

Each TraceLink product app that corresponds to a specific country, retains compliance data, and allows users to search and review the details of that data in compliance reports.

**Compliance Reports**

Reports that display specific country compliance data.

**Component**

A visual element in the Design Studio that is used for building screens. A component is defined by its Properties. There are two types of components: UI components and Data components.

**Container**

A standardized unit of TraceLink code. A container is created from a Docker image at runtime.

**Content Area**

A section of the Foundation layer. Screens are displayed in the content area.

**Contract Manufacturing Organization (CMO)**

A company providing manufacturing and sometimes packaging services for one or more pharmaceutical manufacturers based on contracts or service agreements.

**Contract Packaging Organization (CPO)**

A third-party organization that manufacturers subcontract to package products.

**Core Business Vocabulary (CBV)**

Vocabulary elements agreed upon by trading partners who will exchange data. See: <http://www.gs1.org/epcis>

**Corrective and Preventive Action (CAPA)**

Improvements to an organization's processes taken to eliminate quality failures.

**Counterfeit**

An imitation usually created with the intent of fraudulently passing it off as genuine, often to take advantage of the established worth of the imitated product. The word counterfeit frequently describes the forgeries of currency and documents, and the imitations of clothing, software, pharmaceuticals, jeans, watches, electronics, and company logos and brands. In the case of goods, it results in patent or trademark infringement.

**Crypto code**

Encrypted identification numbers generated by the Tsentrazvitiya Perspektivnykh Tekhnologiy (CRPT) for use in Russia. Provides additional security and allows Russian pharmacies without internet access to verify products. A crypto code is associated to a serial number and consists of a key portion and a code portion.

# D

## Data Carrier

A GS1 term for the different kinds of media, such as barcodes, that can hold GS1 identification keys and application identifiers.

## Data Component

A special type of a UI component in the XD Studio that has been preconfigured with an Opus Query. Included as part of a Screen Template section and configured to have specific behavior based on the Properties setting. To use a Data component, apps must be licensed so they can provide an API that responds to the Opus Query.

## Data Mesh Pipeline Manager

An Opus system app, provided by TraceLink, that provides a set of standard processing steps as well as the ability for an application to define custom processing steps that can be used to transform, enrich, and combine data in various ways to create data products that can be used in applications for analytics and reporting purposes.

## Data Model

The event interface for the schema store that allows authorized users to retrieve schemas. Kernel and platform developers create object types, relationships, and attribute definitions directly in the system. These items make up the Logical Data Model that an application manages.

## Data Studio

A part of the Solution Builder. Customers and Solution Partners use the data studio to configure data validations and actions.

## Decommission

To disassociate a serial number from a product or container so that it is no longer tracked. In TraceLink, decommissioned serial numbers can be reused, whereas destroyed serial numbers cannot be reused.

## Delivery

In TraceLink, a delivery is considered a sale, transfer, or return.

## Design Studio

A part of the Opus Solution Builder. Customers and Solution Partners use the Design Studio to create and modify experiences, create and modify screen/field layout, and configure data and actions.

## Destroy

To disassociate a serial number from a product or container so that it is no longer tracked. In TraceLink, destroyed serial numbers cannot be reused, whereas decommissioned serial numbers can be reused.

## Disaggregate

To remove products or containers from a parent container. The serial numbers of the contained product or container are no longer associated as children of the parent container.

## Dispenser

A retail pharmacy, hospital pharmacy, group of chain pharmacies, or any other person authorized by law to dispense or administer prescription drugs. Under DSCSA (United States), an entity is not considered a dispenser if it acts as a wholesale distributor or dispenses products only used for animals.

## Disposition

The state of a serial number. TraceLink updates serial number disposition states after provisioning, encoding, commissioning, aggregating, decommissioning, and destroying serial numbers.

## Distribution Center (DC)

A warehouse stocked with goods to be redistributed to retailers, wholesalers, or customers.

## Docker Image

A file that includes the code, runtime, tools, libraries, and settings needed to execute code for an app. A Docker image becomes a container at runtime.

**Double Byte Character Set**

A character encoding that contains a large number of unique characters or symbols that is used to express languages such as Japanese, Korean, and Chinese.

**Downstream**

The direction of product flow, e.g. pharmaceuticals travel first through the manufacturers, then downstream to repackagers, then downstream to wholesaler distributors, and finally downstream to dispensers.

**Drug Quality and Security Act (DQSA)**

US Federal Legislation passed in November 2013.

**Drug Supply Chain Security Act (DSCSA)**

An Act signed into law in 2013, which dictates the governance of pharmaceutical distribution and traceability in the US. See <https://www.fda.gov/DrugSafety/DrugIntegrityandSupplyChainSecurity/DrugSupplyChainSecurityAct/> for details.

**Drug Track and Trace System (DTTS)**

The Saudi Arabia compliance reporting repository, which supports Saudi Food & Drug Authority serialization and traceability regulations.

**Drugs Authentication and Verification Application (DAVA)**

India's web portal where manufacturers and exporters upload the compliance reports required for Indian pharmaceutical regulations.

**Dun & Bradstreet (D&B)**

A company that publishes a business directory of other companies and assigns and maintains a unique identifier for each company within the directory.

**DUNS® Number**

D&B's copyrighted, proprietary means of identifying business entities on a location-specific basis. Assigned and maintained solely by D&B, this unique nine-digit identification number has been assigned to over 100 million businesses worldwide.

**DUNS® Number+4**

The DUNS Number plus a 4-digit extension (13-digit total) created by assignees when there is a need for more than one bank/Electronic Funds Transfer (EFT) account for a location. D&B does not create or maintain the +4 number.

**E****Each**

The smallest saleable unit of product, the secondary package level. Synonymous with item.

**Elastic Container Registry (ECR)**

A fully managed Docker container registry from AWS that makes it easy for developers to store, manage, and deploy Docker images.

**Electronic Data Interchange (EDI)**

The electronic transfer of data between computer systems in a standardized message format.

**Electronic Drug Monitoring Code (EDMC)**

A unique identifier provided by the Chinese government for serialized product.

**Electronic Product Code (EPC)**

A unique number that identifies a specific item in the supply chain. Also known as a serial number.

**Electronic Product Code Information Services (EPCIS)**

See: [www.gs1.org/epcis](http://www.gs1.org/epcis) for the definition.

**Encoding**

The process of preprinting labels for serial numbers after they are provisioned. Once the labels are affixed to the products, the serial numbers enter the

"commissioned state."

### Enterprise Application

An application used only by the owning company, much like their enterprise systems. Enterprise apps do not have linked partners, however they can be linked to the owning company and/or its locations to support integration with the company's other enterprise systems. Examples of Enterprise Applications are Master Data, Administration, Audit Trail, Compliance Apps, TDE, and Opus Solution Builder.

### Enterprise Resource Planning (ERP)

Business process management software used to manage and automate back-office operations.

### Enterprise Serialization Manager (ESM)

A term used for a serialization system that a customer may use as its System of Record (SOR) for serial numbers instead of TraceLink's serialization services. The ESM system provides serial numbers to TraceLink for serialization operations and global compliance reporting. Synonymous with External Serialization Manager.

### Environment

A namespace that contains a group of Kubernetes deployments.

### EPC Global

An organization sponsored by GS1. Develops the standards for Electronic Product Code (EPC) and for Radio-Frequency Identification (RFID) systems that store and manage EPCs.

### Error Correction Coding (ECC)

A code applied to transferred data for error control. The ECC provides redundancy and allows the receiver to recover the original data.

### Essential Drug List (EDL)

A country-specific list of drugs that satisfies the healthcare needs of the population majority. In China, serial number file structures differentiate whether or

not a drug is on or off the EDL and is known as Provincial Reimbursement Essential Drug List (PEDL).

### EU Compliance

TraceLink app. Generates EU required reports regarding Serialization and Product Verification.

### European Hub

A cloud-based gateway for EU compliance reporting. Provides interoperability between different national systems in the EU, and manages product status (e.g. decommissioning, recalls) and exceptions throughout the life cycle of a product. The hub does not store serialization data like a repository – instead it acts as a single point of entry.

### European Medicines Verification System (EMVS)

Pan-European system that implements the Falsified Medicines Directive (FMD). Verifies the authenticity of a medicinal product.

### Event

Any action that is triggered in the TraceLink system becomes an "event" once processed in the system.

### Event Gateway

An Opus system app, provided by TraceLink, that includes libraries for Route Manager. Event Gateway also includes GraphQL.

### Event Repository

A computer system designed to store serial number information and events relating to serialized products.

### Exchange Transaction

A DSCSA term that describes the movement of a product where a change of ownership occurs.

### Exclusive Distributor

A wholesale distributor that purchases directly from a manufacturer and is the sole distributor of that manufacturer's product.

**Experience Manager**

An Opus system app, provided by TraceLink, that provides APIs that enable the creation of experiences in Customize for companies that own Solution Builder.

**Experiences**

Experiences enable access to app functionality in a responsive web user interface (UI) accessible across devices (PC, mobile, etc). Experiences are defined using the Solution Builder Design Studio using low-code, UI-driven configuration. Experiences can include functionality within a single app or functionality that spans across apps. For example, an experience can be created that provides access to features of two different apps in an integrated user experience (when the customer has licensed both apps). Different Experiences can be created for different classes of users that may use the same app. For example, one app can contain a Dispenser Experience, a Manufacturer Experience, and a Partner Experience.

**Expiry**

Date of expiration or the last day an item should be used.

**Extensible Markup Language (XML)**

A set of rules that allows documents to be readable by both humans and machines.

**Extension Digit**

A one-digit segment used to extend the serial reference segment of a Serial Shipping Container Code (SSCC) identifier. The SSCC format is: urn:epc:id:sscc:"[company prefix].[extension digit + serial number]."

**External Product Identifier**

A standards-based product code, e.g. Global Trade Item Number (GTIN) or a market-specific product code, used to identify the product. Note that this is not a manufacturer Stock Keeping Unit (SKU), as SKUs are not regulated or standardized.

**F****Falsified Medicines Directive (FMD)**

A pan-European directive intended to protect patients from counterfeit medicines in the regulated pharmaceutical supply chain. The European Medicines Verification System (EMVS) was developed to implement the FMD.

**Federal Law No. 425-FZ**

A law enacted in 2017 that dictates the governance of pharmaceutical distribution and traceability in Russia.

**File Manager**

An Opus app, provided by TraceLink, that supports the ability to import and export files to and from an app.

**Filter Value**

A digit in the 0-9 range that is used in certain EPC and coding formats, as part of the RFID control information, to specify the packaging level associated with the serial number (e.g. each, case, pallet).

**Foundation**

Foundation layer of the platform. Experiences are built on top of the Foundation, which is always visible.

**G****Global Catalog Administration**

An Opus enterprise app that allows authorized administrators to approve or reject requests to promote catalog items from a company's catalog into the

global catalog. UI access to the Global Catalog Administration app is provided by the Global Catalog Administration solution.

### Global Company Prefix (GCP)

The Company Prefix of the GS1 Identification Key. The Company Prefix is used for any location (physical, operational, or legal) that needs to be identified for use in the supply chain.

### Global Identifier

A unique reference number used to identify a legal entity (e.g. company, location) to support the secure exchange of business information.

### Global Location Number (GLN)

A unique 13-digit number containing a GS1 company prefix, a location reference, and a check digit, used to uniquely identify a physical location or legal entity in the supply chain. The GLN makes possible the unique and unambiguous identification of those locations and entities.

### Global Trade Item Number (GTIN)

A globally unique product identifier used by a company to identify its trade items at all item and package levels. To ensure the identifier is globally unique, GTINs contain the company's GS1 Company Prefix which is assigned by GS1.

### Good Practice (GxP)

A general term, usually referring to quality and regulations, in which "x" serves as a variable (e.g. GMP is "Good Manufacturing Practice").

### GS1

A leading global organization dedicated to the design and implementation of global standards and solutions, to improve the efficiency and visibility of supply and demand chains globally. The GS1 system of standards is the most widely used supply chain standards system in the world (more at [www.gs1.com](http://www.gs1.com)).

### GS1-128

Formerly known as Code-128. A linear barcode used by organization members of GS1.

### GS1 Company Prefix

A 4-12 digit globally unique company identifier assigned and administered by GS1 Global. A component of Global Location Number (GLN), Global Trade Item Number (GTIN), and Serial Shipping Container Code (SSCC) identifiers.

### GS1 Datamatrix

A two-dimensional matrix barcode, also called a 2D matrix, consisting of black and white cells arranged in either a square or rectangular pattern. The information to be encoded can be text or raw data. Usage granted by the GS1 standards organization.

## H

### Handler

A mechanism that executes one or more actions in response to an event. Handlers can be organized into modules.

### Header

Headers comprise the prefixes used in Human Readable Interpretation of variable data. Common headers include GS1 Application Identifiers (AIs) or GS1 recommended field labels.

### Headless App

In software development, a headless application architecture leverages an API-first approach that is focused on the data model, workflow, business logic, and APIs. The APIs are at the center for exposing information that can be consumed by user experiences and used for integration with other systems and applications. All Opus applications are headless apps built using the API-first paradigm.

### Health Industry Number (HIN)

9-character alphanumeric unique identifier that is assigned to every facility, delivery location, and business activity in the healthcare supply chain.

### Healthcare Distribution Alliance (HDA)

US National Association representing primary, full-service healthcare distributors. Formerly the Healthcare Distribution Management Alliance (HDMA).

### Homogenous Case

Defined under DSCSA as a sealed case containing only product that has a single National Drug Code number belonging to a single lot.

### Human Readable Interpretation (HRI)

Characters (e.g. letters, numbers) which can be read by persons and are encoded in data carriers. HRI is a one-to-one illustration of the encoded data.

### Illegitimate Product

Defined under DSCSA as a product for which credible evidence shows that the product is counterfeit, diverted, or stolen; is intentionally adulterated such that the product would result in serious adverse health consequences or death to humans; is the subject of a fraudulent transaction; or appears otherwise unfit for distribution such that the product would be reasonably likely to result in serious adverse health consequences or death to humans.

### Importer

A company that oversees the importation of product to a specific country.

### India Compliance

TraceLink app. Searches and views reports required by the Indian government.

### Individual Saleable Unit

Defined under DSCSA as the smallest container of product introduced into commerce by the manufacturer or repackager that is intended by the manufacturer or repackager for individual sale to a dispenser.

### Industry 4.0

The digital transformation of manufacturing/production and related industries and value creation processes. It refers to the intelligent networking, automation, and data exchange of machines and processes, including cyber-physical systems, the Internet of Things, cloud computing, and cognitive computing.

### Inference

The recognition of the serial numbers within a sealed container based on previous observation, and not by directly reading each serial number. Inference is accomplished using data systems or documents and is controlled through validated procedures.

### Info Exchange

A TraceLink B2B monitoring tool. Allows certain users to review data that is moving in and out of TraceLink. Monitors and logs file exchanges, errors, search details, and raw files.

### Info Express

A TraceLink app that allows for B2B transaction exchanges between Trade Partners in custom formats.

### Inspection

The process of reviewing an item, either manually or using automated systems.

### Installation Qualification (IQ)

Demonstrates that a process or equipment meets all specifications, is installed correctly, and all required components and documentation needed for continued operation are installed and in place.

### Internal Material Number

A number assigned to a product for internal use and not for identifying the product externally.

### Internal Partner

A location within the Owner Company that has been granted specified access to a TraceLink app.

**Interoperability**

The ability of technology systems and software to communicate, exchange data and/or information, and make use of the information that has been exchanged.

**Item**

The smallest saleable unit of product, the secondary package level. Synonymous with each.

**K****Kernel Developer**

Responsible for maintaining the verticle, which serves as the starting point of every app. The kernel developer maintains code that defines default behavior for every pod in the system.

**Korean Pharmaceutical Information Service (KPIS)**

The South Korea compliance reporting repository, which supports serialization and traceability regulations.

**Kubernetes (k8s)**

Enables dynamic deployment of a group of apps so they can be accessed at runtime. A Helm chart describes how Kubernetes deployments are grouped together in an environment.

**L****L1-L5**

The 5 levels of serialization and information management, which include: L1 – Device, L2 – Packaging line software, L3 – Site-level serialization, L4 – Enterprise serialization system, and L5 – Network-level serialization system.

**Lightweight Directory Access Protocol (LDAP)**

An industry standard protocol for accessing and maintaining distributed directory information services.

**Line Management System (LMS)**

A system that manages a production line and interfaces with a company's Enterprise Resource Planning (ERP) system.

**Link**

The representation of the relationship between an Owner and a Partner within the context of an app. A Link creates the shared context within the app and defines the permissions for data exchange and access. A Link can be initiated by the app Owner or by a Member of the TraceLink Network, based on the app configuration. Links can be made at the company or location level, depending on what is appropriate for the given app.

**Local Library**

A company's local storage for solution packages. Each company can maintain their collection of packages in their local library. In a future release, companies will be able to download solution packages and add to their local library, save their local solution customizations as packages to their local library, and use their local library to move packages between environments (i.e. from Validation to Production).

**Logistics Labeling**

Comprises the data and process of printing labels for use on all containers above the secondary packaging level (e.g. shipper and pallet labels).

**Lot**

A group of products associated with a manufacturing or packaging operation. Synonymous with batch.

**M****Management**

An application utility that includes tools for managing application settings and Partners. Users that have access to this utility are considered Managers.

**Manufacturer**

An entity or organization responsible for producing a product.

**Manufacturing Execution System (MES)**

A control system for managing and monitoring work-in-process on a factory floor.

**Marketing Authorization Holder (MAH)**

The license holder (brand owner) of a pharmaceutical product.

**Markirovka (MDLP)**

The Russia compliance reporting repository, which supports serialization and traceability regulations. MDLP is controlled by the Tsentrazvitiya Perspektivnykh Tekhnologiy (CRPT).

**Master Data**

The collection of data representing a company's details, global identifiers, products, and trading partners. Particular types of data are required for serialization and global compliance reporting.

**Master Data Exchange (MDX)**

TraceLink app for managing Company Master Data, Partner Master Data, and Product Master Data.

**Master Data Manager**

An Opus multienterprise app, provided by TraceLink, that provides read-only access to Master Data Exchange (MDX) from Track & Trace Services.

**Member**

Any company, location, or person on the TraceLink Network.

**Message**

An integration message (formerly known as transaction) which is used as an interface to exchange data between two companies. Messages process in real-time.

**Message Hub**

An Opus system app, provided by TraceLink, that enables notifications and inbox messages, based on the triggering of certain application events.

**Message Processing Framework**

An Opus infrastructure app, provided by TraceLink, that is used by app developers to define message processing flows and branching, which support asynchronous message processing via message handlers.

**Metadata**

Defines an app or platform service. The goals of accelerating app development, facilitating the management of apps, and presenting a developer with a visual development experience require that much of the behavior of an app be defined via metadata. The metadata repository contains object types, associations, and attributes.

**Metadata Manager**

An Opus system app, provided by TraceLink, that is responsible for managing data models, which consist of object types, relationships, and attributes. This app generates the schema that apps use to persist the data and navigate the data model.

**Mobile App**

A mobile instance of a customer's application run on a tablet or phone.

**Module**

Organizes a set of event handlers. Modules have their own Git repositories and their own build pipelines. In TDE, a developer selects which modules to include in the app they are building.

**Multienterprise Application**

An app used by the owning company that enables the company to share the app and data with supply chain partners on the TraceLink Network. Support for integrated supply chain partners is inherent to the app. Data can be exchanged via the user interface or message exchange with a linked Partner on the TraceLink Network. Examples of multienterprise apps are Agile Process Teams (APT), Serial Number Exchange (SNX), Product Track, and Product Information Manager (PIM).

**Multienterprise Process Connect**

An app that allows companies to share financial information, product movement, serialized data, and production information about commercial activities with upstream and downstream supply chain partners.

**N****Namespace**

A term used by Kubernetes as a mechanism to support multiple virtual clusters backed by the same physical cluster. These virtual clusters are called namespaces and can be thought of as an abstract container or environment created to hold a logical grouping of apps and data stores.

**National Association of Boards of Pharmacy (NABP)**

A nonprofit organization that promotes safe pharmacy practices.

**National Drug Code (NDC)**

A unique three-segment numeric identifier assigned to each medication prepared for commercial distribution in the United States. The three segments of the NDC identify the labeler, the product, and the commercial package size. The NDC is used as the Item Code in Product Master Data for products distributed in the US.

**National Essential Drug List (NEDL)**

A list of drugs that a country specifies that satisfies the healthcare needs of the majority of the population.

**National Medical Products Administration (NMPA)**

The organization in China responsible for ensuring pharmaceutical quality. Replaced China Food and Drug Administration (CFDA) in 2018.

**National Medicines Verification Systems (NMVS)**

A country-specific product verification system that implements the Falsified Medicines Directive (FMD). NMVS systems verify the authenticity of a medicinal product by leveraging information sent through NMVS Compliance.

**National Medicines Verification Systems (NMVS) Compliance**

A TraceLink app that generates searchable reports about pack verification and status update events across all European national systems.

**National System**

An information system set up and governed by national stakeholders to ensure a medicine's authenticity by verifying its safety features. This prevents falsified products from entering the supply chain.

**National Trade Item Number (NTIN)**

A product identifier that adopts the structure of a Global Trade Item Number (GTIN) and is assigned by a third-party national agency. An NTIN contains a country-specific drug registration number.

**Navigation Drawer**

Provides access to app destinations as the side menu of the Design Studio. The navigation drawer allows a user to navigate content by selecting different objects to perform actions on.

**Network**

A business ecosystem is composed of networks. A single network is owned by a company and enables the execution of one or more processes. Networks can have linked entities, which can include Partner companies, Partner locations, and Owner locations based on the nature of the business processes the app supports and the requirements of the specific business context.

**Network Administration**

An Opus system app, provided by TraceLink, which is responsible for arranging entities on the TraceLink Network, including companies, locations, users and roles, and their associations. Other end-user apps such as Network Operations, Company Administration, Application Administration, and User Administration all leverage this application's capabilities to facilitate the administration of their companies and networks.

**Network Administrator**

A member of a network that has the permissions to perform administration functions specific to a network (e.g. adding users at the network level, linking Partners and internal locations). Only apps that support multiple networks have Network Administrators.

**Network Integration**

A Business-to-Business (B2B) connection between a company's ERP system and TraceLink that allows the company to exchange files with other companies from the TraceLink Network. Once a company is integrated to the Network, they can access TraceLink through an Applicability Statement 2 (AS2) mailbox, Secure File Transfer Protocol (SFTP) directories, or HTTP Post web upload location (in addition to the web browser application).

**Network Onboarding**

Defining the company on the Network. TraceLink onboards a company once by adding a Company Profile to the TraceLink Network. The company's Network profile defines the company so that TraceLink can always interact with it. The profile uniquely identifies each company on the Network to distinguish it from all other parties.

**Network Resource Planning (NRP)**

An analytics-based application that will allow customers to plan and optimize demand and supply across the end-to-end supply chain.

**Node**

A server that hosts the platform for a consumer application. A node represents a physical location, a logical location, sub-location, organization, legal entity, or even specific system. Network nodes could be a plant, warehouse, or logical subdivision of a warehouse. For example, a 3PL facility that services multiple customers could have a different Network node representing a logical warehouse for each customer serviced at that location, a business unit or line of business, a geographic organization, a specific ERP system, or a corporate entity.

**Node Pool**

Namespaces can be mapped to node pools to control the placement of pods on physical devices.

**O****Object Type**

One of the three primitive building blocks used to create the data model. (The others are attribute and relationship.) A reusable component for managing data in applications. Examples include: Purchase Order, Company, Project.

**Operation**

A function that can be performed using an API. Referred to as an action in the platform data model.

**Operational Qualification (OQ)**

Formal testing of the TraceLink Life Sciences Cloud (TL-LSC) system performed by the TraceLink software quality assurance team. This formal testing is required by TraceLink's Software Development Lifecycle procedures for all changes to the

system before a version is approved for release to customers. All OQ testing is documented and reviewed, with objective evidence filed with the test results.

### Operational Reporting

Within TraceLink, operational reporting allows TraceLink members to pull existing product data from the system into a CSV file.

### Opus Development Environment (ODE)

An Opus enterprise solution, provided by TraceLink, that provides the user interface for programmers, business analysts, professional services, customer IT staff, and third-party developers to build business process applications using the TraceLink Development Environment (TDE).

### Opus Digital Network Platform

A multi-tenant cloud environment for developing and hosting extensible mobile and web apps.

### Orchestration

A multienterprise app that coordinates the processes made up of various discrete orchestration tasks across supply stakeholders. Orchestration tracks the key dates, responsible parties, and other information for those tasks and can recalibrate the process based on defined contingencies. Orchestrated processes are created from templates and each orchestrated process has specific information defined.

### Overall Equipment Effectiveness (OEE)

Evaluation of the effectiveness of a manufacturing operation.

### Owner

A TraceLink Member who has purchased a particular TraceLink application (a.k.a. TraceLink Customer). Once purchased, the Owner establishes a Link to one or more Members, which makes that Member a Partner within that application's instance.

## P

### Pack Marking

Data and process for printing on primary and secondary product packaging.

### Package

A portable version of a solution that preserves the functionality of the solution and the assets the solution uses (e.g. role or policy configurations, data model or workflow customizations, user experience tasks). Each package has a unique combination of package name and version number.

### Package Transfer Service (PTS)

Track and trace system that transfers serialization data between entities when products are sold in Saudi Arabia. A component of the Drug Track and Trace System (DTTS).

### Packaging and Labeling

Physical material, artwork, and printing used for all levels of product and logistics containers.

### Packaging Code

A code that can be assigned at multiple levels of the packaging aggregation. The code type is chosen by the user. Packaging codes do not have to be the same code type between packaging levels.

### Pallet

Largest of the TraceLink defined packaging levels. A flat transport structure that supports goods while being lifted by a forklift or other jacking device. Goods or shipping containers are often placed on a pallet secured with strapping, stretch wrap, or shrink wrap and shipped.

**Parallel Importer**

An organization that buys a product on the open market with the intention to repackage or relabel, and then distributes the product to a different market.

**Park and Retry**

A practice for pausing the processing of a message if certain prerequisite conditions have not been met. If a prerequisite for a message has not been met, TraceLink stops processing that task, returns the task to the queue, and then tries to process the task again every 15 minutes for a predetermined amount of time (the default amount is two hours).

**Partner**

A company on the TraceLink Network that is linked to an app controlled by another company for the purpose of collaborating with the app Owner in the context of a business process. A partner may or may not be a TraceLink customer for the app. When a Partner is also a TraceLink customer of the app, the information exchange is app to app.

**Partnership for DSCSA Governance (PDG)**

A collaborative forum and FDA public-private partnership dedicated to developing, advancing, and sustaining an effective and efficient model for interoperable tracing and verification of prescription pharmaceuticals in the US.

**Pedigree**

A certified record that contains information about each distribution of a prescription drug. It records the sale of an item by a manufacturer, any acquisitions and sales by wholesalers or repackagers, and final sale to a pharmacy or other entity administering or dispensing the drug. The process generally begins with the serialization of a product, and then continues through the supply chain as the product is received by each trading partner.

**Performance Qualification (PQ)**

The documented evidence that the system, equipment, or process is capable of consistently producing a safe product of high quality.

**Pharmaceutical Manufacturer**

An entity or organization that is the license holder of the pharmaceutical product. This includes Brand Owners, Generics, MAHs, and other Specialty Companies.

**Picking**

Process of collecting articles in a warehouse to fulfill a customer order.

**Platform**

A group of TraceLink-developed technologies that are used as a base upon which other applications, processes, or technologies are developed.

**Platform Webapp**

An Opus app, provided by TraceLink, that provides the basic UI framework for Opus Platform applications including the header, utilities menu, side menu, footer, and the content explorer. These major aspects of the UI framework are always present within any Opus app.

**Pod**

A Kubernetes term for a group of containers deployed together.

**Policies**

A policy defines the underlying expression that needs to be evaluated to determine whether the user with role X is permitted to perform the given action specified in role X (e.g. user can perform that action on that object in that environment). The policy expression is evaluated at the time the user initiates an action and responds in sub-millisecond time. The data model defines which attributes are available for policies to evaluate. TraceLink provides a set of policies with each app and Company Admins have permissions to update policies for apps they license. (See: Roles)

**Portal**

TraceLink web application particularly for Trading Partners as opposed to TraceLink Customers.

**Primary Package**

The packaging material in direct contact with a product's contents, usually the smallest unit of distribution or use (e.g. blisters, bottles).

**Primitive Building Blocks**

The three building blocks used to create the data model: object type, attribute, and association.

**Process**

A Process can be a base business object or custom business object. Solutions can only have a single instance of a specific object type. For example, if we have a base business object customized in 3 different ways, out of 4 variations of the base business object only one can be part of the solution.

**Process Team**

An organizing construct used by the Agile Process Teams (APT) app that provides the ability to configure team workspaces dedicated to specific groups of users and Partners that will use the solution to execute processes while maintaining separate data access and visibility within each Process Team. This enables a delegated usage model by multiple organizations or business units in the same company and their respective supply chain ecosystems. This enforces the same process across the enterprise while permitting each business unit to manage its partners, users, role assignments, and data visibility independently. See: Agile Process Teams (APT)

**Process Team Administrator**

A member of the APT app and one or more Process Teams with permissions to add/remove user access to the Process Team, link/unlink Partners to the Process Team, and assign the Process Team user roles to users and Partners.

**ProcessLink**

A TraceLink term that describes a one-to-one B2B relationship between a TraceLink customer and its Trade Partners.

**ProcessLink Workspaces**

A collaborative workspace that includes all active product apps as a B2B toolset for a TraceLink customer and its Trade Partners.

**Product**

A prescription drug that is fully manufactured and is in its intended dosage. Synonymous with Medicine.

**Product Code**

A unique identifier assigned to each finished manufactured product that is ready to be marketed or sold. Synonymous with Universal Product Code.

**Product Information Exchange**

A TraceLink app that routes Consumer verification requests to Product Information Manager (Product Verification). This app also stores a history of verification requests and responses.

**Product Information Manager - Master Data Share**

A TraceLink app that allows users to exchange product master data with any of their supply chain partners.

**Product Information Manager - Product Verification**

A TraceLink app that enables direct and indirect trading partners to manage product verification requests in real time across any party in the supply chain, without a need for preexisting relationships between the requesting and responding parties.

**Product Verification**

Allows a user to verify the status of a serial number against a pharmaceutical manufacturer's data.

**Production Cluster**

Each region has one production cluster and one test cluster.

**Project**

A collaboration space for developers to create versions of a set of apps. A project is used to develop one or more versions of one or more apps. A company in a namespace creates a project. A client must address events to the TDE app to create a new project.

**Property**

The specific object instance of an attribute (i.e. the value of the attribute).

**Provisioned**

A serial number state in which the serial number has been created and reserved for a product, but has not yet been commissioned.

## Q

### Quarantine

The storage or identification of a product, to prevent distribution or transfer of the product, in a physically separate area clearly identified for such use or through other procedures.

## R

### Radio-Frequency Identification (RFID, RFID tag)

The use of an object applied to or incorporated into a product, animal, or person for the purpose of identification and tracking using radio waves.

### Recall

The removal of a drug product from the market. In the US, recalls fall under three classifications: Class I is for drug products that can probably lead to adverse health effects or death; Class II is for drug products that can cause temporary or reversible health effects; and, Class III relates to instances where the drug product is not likely to cause adverse health effects.

### Receipt

An inbound purchase, return, or transfer within TraceLink.

### Reconcile

The process of verifying that information in a digital system accurately reflects the state of objects in the real world (e.g. comparing a label on a package with the same label in TraceLink).

### Region

Company data is stored in a data center in one of two regions: US East or EU Central. For data residency and privacy, a company can only have their data in one region. Companies can exchange data with companies in other regions, but a company cannot move data to another region. If a company needs to migrate data from one region to another, TraceLink creates a new company in the other region. Migration happens only on the production cluster.

### Relabel

To assign a new serial number to a container (preserving existing aggregations) within TraceLink.

### Relationship

One of the three primitive building blocks used to create the data model. (The others are object type and relationship.) A relationship is how business objects can be connected to each other; relationships represent "why" two objects are connected.

### Roles

Roles govern permissions to screens, functions, and data within an app, whether performed via the user interface or integration. Roles are managed by the Business Technology Specialists that configure and customize the app and by the Company Admins (users with Role Management access). An app can have many roles (to permit and restrict what different classes of members can do within the app). Roles are defined, named, and assigned to members of the app, including Partners. Every enterprise app must have roles for at least an Admin and a Member. Every multienterprise app must have roles for at least an Admin, Member, Partner Admin, and Partner Member. TraceLink will provide a set of default roles with each app that include the above, but may also include standard business use roles.

### Roszdravnadzor

Also known as the Federal Service for Surveillance in Healthcare. An executive body responsible for the control and supervision of the healthcare system in Russia. Part of the Ministry of Health. See <http://www.roszdravnadzor.ru/en> for more information.

**Runtime Model**

Currently placed under the metadata model.

**Russia Biologically Active Food Supplements Compliance (Russia BAFS Compliance)**

An Opus enterprise application that allows Marketing Authorization Holders (MAHs) who sell products in Russia to meet the reporting requirements of Federal Law No. 29-FZ of 2000 regarding the quality of food products and supplements and their safety for human health. Also refers to the Opus enterprise solution that provides the user interface for the Russia BAFS Compliance application.

**Russia Compliance**

A TraceLink application that allows Marketing Authorization Holders (MAHs) who sell products in Russia to meet the reporting requirements of Federal Law No. 425-FZ.

**Russia Crypto Codes**

A TraceLink application that enables Marketing Authorization Holders (MAHs) and their CMOs to manage encrypted identification numbers with the Tsentr Razvitiya Perspektivnykh Tekhnologiy Order Management Station (CRPT OMS).

**S****Safety Features**

Elements (e.g. anti-tampering devices, barcodes) carrying product and pack data, that are incorporated into a medicine product's packaging and identification to facilitate verification. Under FMD, for instance, safety features contain a unique identifier encoded in a 2D barcode and anti-tampering technologies.

**Saudi Arabia Compliance**

A TraceLink application that enables Pharmaceutical Manufacturers and Wholesale Distributors to comply with Saudi Food & Drug Authority (SFDA) regulations.

**Saudi Food & Drug Authority (SFDA)**

Saudi Arabia federal agency that oversees the regulation of food and health products within Saudi Arabia.

See <https://www.sfda.gov.sa/en/pages/default.aspx> for more information.

**Schema**

The physical database instantiation of the Logical Data Model that defines the detailed definition (i.e. attributes) of a particular object type or association, as opposed the metadata model, which is used when referencing the object types, associations, and attributes of the system.

**Screen**

Divides the content area into sections that contain UI components and data components. The Screen template is based on the Flexbox (or "Flexible Box") layout mode, which provides a responsive, device-independent content flow.

**Screen Template**

Defines physical and behavioral boundaries of a specific area in the UI, such as whether it spans across the entire screen or only part of the screen. A Screen template is composed in the XD Studio and can be reused across different devices.

**Script**

Defines a user's company-specific behavior. A script can insert pre-processing or post-processing steps to an event, or even override an event's defined behavior.

**Section**

An area within the XD Studio screen. A section contains UI components, Data components, or both.

**Secure File Transfer Protocol (SFTP)**

A network protocol that provides file access, transfer, and management over a secure channel.

**Segment**

A section of a market or industry. The pharmaceutical supply chain includes segments such as Manufacturer, Wholesale Distributer, Dispenser, Contract

Manufacturing Organization (CMO), Third-Party Logistics (3PL) companies, and Repackagers (also known as Third-Party Packagers or 3PPs).

### Serial Number

The distinctive portion or component of a Unique Identifier (UID), also known as a Serial Reference.

### Serial Number Exchange (SNX)

The TraceLink app used to exchange and track serial numbers during the manufacturing and packaging stages of the product.

### Serial Number Manager (SNM)

The TraceLink app used to generate serial numbers. Manufacturers define the types and formats of the serial numbers and can assign them to packaging sites.

### Serial Shipping Container Code (SSCC)

The number used to identify shipping pieces such as pallets and cases. See the "GS1 Glossary" at <http://gddold.gs1.org> for more information.

### Serialization Process Visibility

A TraceLink app that allows users to run complex queries against the events that take place in TraceLink. Users can search company data for compliance, reconciliation, and troubleshooting needs.

### Serialized Global Location Number (SGLN)

A unique identifier to a physical location (e.g. a specific building or bin within a warehouse). Where the Global Location Number (GLN) is a GS1 format, the SGLN is an Electronic Product Code (EPC) format, and is represented in Uniform Resource Identifier (URI) format (e.g. `urn:epc:id:sgln:0030001.12345.400`).

### Serialized Global Trading Item Number (SGTIN)

The combination of a Global Trade Identification Number (GTIN) and serial number which uniquely identify an item.

### Serialized National Drug Code (sNDC)

The accepted format of unique identifier as defined by the US Food and Drug Administration (FDA) for serialization of US marketed products. The sNDC is

comprised of the National Drug Code (NDC) and a serial number.

### Serialized Operations Manager (SOM)

The TraceLink app that manages and reports on serial numbers and their corresponding products and containers.

### Settings

An application utility that configures app notification settings and TraceLink default settings.

### Shared Catalog Manager

An Opus system app used to add, edit, and delete catalog items in a company's catalog in a specific environment.

### Simple Object Access Protocol (SOAP)

A messaging protocol for exchanging structured (XML) information in the implementation of web services.

### Single Sign-On (SSO)

A session and user authentication service that allows software system users to log in with a single username and password to access connected systems.

### Site Server

A computer system responsible for a location-specific function. In traceability systems, site servers usually refer to local servers that allocate serial numbers to packaging control systems and manage serial number data before it is transmitted to an enterprise traceability event repository.

### Smart Event Manager

A TraceLink app that serves as an event ledger to capture and record serial number observations on serialized objects (in whatever order they may occur) related to pharmacy, warehouse, and supply chain activities in an independent repository, without depending on full track and trace and serial number life cycle requirements.

### Smart Inventory Tracker

A TraceLink app that operates on a handheld device or smartphone that assists with warehouse and distribution functions.

### Smart Rx Manager

A TraceLink mobile app that allows Pharmacies and Hospitals in the European Union to meet verification and reporting requirements. Smart Rx Manager leverages Smart Event Manager to store all events and National Medicine Verification System (NMVS) Compliance to communicate with the appropriate European national system.

### Snapshot

Represents the state of metadata and code at a particular point in time. Developers can choose to take a snapshot at any time. Snapshots are identified by snapshot numbers. Test companies can be configured to use a specific snapshot number of an app's specific version, or to always use the latest snapshot. The latter is useful in development, as the developer makes changes without having to continually change the settings for their test company.

### Software Development Kit (SDK)

A set of developer tools that allows other software programs to interact with the TraceLink Platform. Members on the Network can generate a series of request and response messages corresponding to various TraceLink applications (whether synchronously or asynchronously).

### Solution Builder

An Opus enterprise app, provided by TraceLink, that allows TraceLink, Customers, and Solution Partners (SP) to create and customize solutions in a low-code environment. Design Studio, Workflow Studio, and Data Studio are all part of the Solution Builder.

### Solution Catalog

The global catalog where authorized solution providers can publish approved solution packages to be distributed to TraceLink customers. Companies can download packages from the catalog for the apps they have licensed, which they can then install as a solution and customize if needed.

### Solution Package

A portable version of a solution that preserves the functionality of the solution and the assets the solution uses (e.g. role or policy configurations, user experience tasks, data model or workflow customizations). Each package has a unique name and version number.

### Solution(s)

Once a bundle of applications (from a one or more Solution Areas) are chosen to meet a customer's needs, that customer's Solution is established.

### Solutions

Solutions package configurations of data models, workflows, user experiences, and roles to create the functionality that a customer will use in support of a business requirement. The data model, workflow, and APIs come from the app. The user experiences and roles are associated in the context of the Solution. TraceLink offers default Solutions that can be used out of the box by customers. Configuring and managing solutions is done using the Solution Builder. Customers can also clone and customize solutions with the Solution Builder.

### South Korea Compliance

TraceLink app. Searches and views reports required by the South Korean government.

### Standard Carrier Alpha Code (SCAC)

Code used to identify transportation companies.

### Standardized Numerical Identifier (SNI)

A standard identifier affixed to a prescription drug package.

### State License

Within the US, a particular state's license as a wholesale drug distributor, e.g. Indiana issues a wholesale drug distributor license number, in the format 4800XXXXA (including the "4800" prefix and the "A" suffix).

### Stock Keeping Unit (SKU)

Specifies a distinct type of item for sale. SKUs are not regulated or standardized and thus are not used for serialization.

**Storage Area Network (SAN)**

A network that provides access to consolidated, block level data storage.

**Supplier Issue Tracking**

TraceLink app. Tracks external and internal supplier issues.

**Supply Chain Issue Management (SCIM)**

A multienterprise collaboration solution for Tracelink's Agile Process Teams (APT) app that allows capturing, analyzing, resolving, correcting, and preventing supply chain issues.

**Supply Chain Work Management (SCWM)**

A multienterprise work management Solution for digitalizing supply chain business processes and enabling structured execution cross-functionally and cross-company with supply chain partners.

**Suspect Product**

A product for which there is reason to believe that such product is potentially counterfeit, diverted, or stolen; potentially intentionally adulterated such that the product would result in serious adverse health consequences or death to human; potentially the subject of a fraudulent transaction; or appears otherwise unfit for distribution such that the product would result in serious adverse health consequences or death to humans.

**Synchronous Message**

An integration message (formerly known as transaction) is an interface where data exchanges between two or more entities. Synchronous messages fully process in real-time.

**Synchronous Processing**

Type of processing that provides an immediate response to a query. Simple Object Access Protocol (SOAP) and REST web services provide synchronous processing.

**System Administrator**

A member of a company that has the permissions to perform system administration functions for apps to which the company has access (e.g. company

configuration, adding users to the company).

**System Application**

An application that enables fundamental capabilities of the Opus Platform and makes these available to end-user applications. Examples of System Applications are Metadata Manager, Application Manager, Workflow Manager, Message Processing Framework, and Application Version Manager.

**System of Record (SOR)**

A data storage system that is the authoritative source for a particular data element when there are multiple sources of the same element.

**T**

**T3**

Under DSCSA, the combination of Transaction Information (TI), Transaction History (TH), and the Transaction Statement (TS) for a product as it moves through the drug supply chain.

**Team**

A team is composed of users from the company that owns the network and users from the linked entity who have access to the Link. Each Link within the network represents a single team.

**Team Administrator**

A member of an app or network that has permission to perform administration functions for that app or network (e.g. adding users at the network level, linking Partners and internal locations). Only apps that allow linking have Team Administrators.

**Telepresence**

For rapid development work, platform developers can use Telepresence to allow code to be run on their local machine and proxied to the cloud.

**Templates - Serial Number**

Using the Serial Number Manager (SNM) app, manufacturers define the formats of the serial numbers for particular products using serial number templates, which are defined presets for correlated serial number data.

**Test Cluster**

Contains the company namespace, QE, namespace, and other namespaces for QA/testing in a runtime environment for debugging. Each region has one production cluster and one test cluster.

**Theme**

Defines the visual branding information and applies to all screens hosted in the XD Studio. A theme can be modified by companies and users. Examples: color, font, spacing, and other visual aspects not affecting functionality.

**Third-Party Logistics (3PL)**

A contracted company that provides distribution services of finished goods on behalf of another company. A 3PL provides distribution services, but never takes ownership of the product although the product is in its possession.

**Third-Party Manufacturer (TPM)**

A company contracted to manufacturer products for a pharmaceutical manufacturer.

**Third-Party Organization (TPO)**

Term used to refer to any Third-Party Manufacturer (TPM), Third-Party Logistics (3PL), Contract Manufacturing Organization (CMO), or other externally contracted organization.

**Third-Party Packager (3PP)**

An organization that is contracted to package product.

**Third-Party Printer (3PP)**

An organization that is contracted to print serial numbers onto packaging containers.

**TL Runtime**

The set of implementations for the interface provided by the API package in the Opus SDK. It is part of the TL kernel verticle, and is shared by all subordinate verticles located in the container.

**TLDB**

A logical database built by TraceLink (based on RocksDB) to provide data persistence for Opus applications. An Opus application communicates with a TLDB instance through the Worldview data access layer.

**TraceLink Application (App)**

A TraceLink product offering which includes a fixed set of functions. For example, SNX is an app which includes provisioning, commissioning, and aggregation functions.

**TraceLink Customer**

The company or organization that enters into a commercial relationship with TraceLink, purchasing a TraceLink product offering, such as Product Track.

**TraceLink Development Environment (TDE)**

An Opus enterprise app, provided by TraceLink, that enables programmers, business analysts, professional services, customer IT staff, and third-party developers to quickly build business process applications in a low-code, cloud-scale environment.

**TraceLink Experience Design Studio (XD Studio)**

App used to build TraceLink experiences. In the XDE, a user composes and customizes screens and assigns those screens to personas.

**TraceLink Network**

The foundation of the TraceLink product offerings (i.e. TraceLink at the highest level). Members join the TraceLink Network and access applications either as Owners (if they purchased the application) or Partners (if Linked to the application).

### **TraceLink Web Experience**

A responsive web experience that is accessed from <http://opus.tracelink.com> and will replace the [tracelink.com](http://tracelink.com) website. The TraceLink Web Experience provides a Foundation layer of the platform UI that is always visible.

### **Track and Trace**

A group of systems and processes used to determine the status and location (past and present) of a unique item.

### **Trading Partner**

An on-going business-to-business relationship where a product transfer and change of ownership occurs (e.g. Customer, Supplier, 3PL).

### **Transaction History (TH)**

A Drug Supply Chain Security Act (DSCSA) term. A statement in paper or electronic form that includes the Transaction Information (TI) for each prior change of ownership, going back to the manufacturer of the product.

### **Transaction Information (TI)**

A Drug Supply Chain Security Act (DSCSA) term. Information that documents the change in ownership of a product including drug product information, dates, and business party details.

### **Transaction Statement (TS)**

A DSCSA term that refers to a statement, in paper or electronic form, that provides a legal attestation that the entity transferring ownership complies with DSCSA requirements. The Transaction Statement is included with the Transaction Information and History.

### **Transform Service**

An Opus enterprise app, provided by TraceLink, which is responsible for transferring data from one format to another (e.g. JSON to CSV).

### **Tsentr Razvitiya Perspektivnykh Tekhnologiy (CRPT)**

The public-private organization in Russia responsible for generating crypto codes via their Order Management Station (OMS). See <https://crpt.ru/> for more information.

## **U**

### **UI Component**

Included as part of a screen template section in the XD Studio and configured to have specific behavior based on the Properties setting.

### **Uniform Product Code (UPC)**

The US standard article number. A form of GTIN data carrier or barcode.

### **Unique Identifier (UID)**

A string of numbers and characters relating to a product that is unique within a given system.

### **Universal Product Code (UPC)**

A unique identifier assigned to each finished manufactured product that is ready to be marketed or sold. Synonymous with Product Code.

### **Upstream**

The opposite of the normal product flow in a supply chain (i.e. moving back up the supply chain). Generally speaking, the pharmaceutical product flows, and transactions occur, through the supply chain from manufacturers, to repackagers, to wholesaler distributors, to dispensers.

### **US Center of Veterinary Medicine (CVM)**

An FDA Organization that regulates some products that are administered by veterinarians but can also be consumed by humans.

### **US Drug Enforcement Administration (DEA)**

Federal Agency which enforces federal drug laws within the US.

### **US Drug Enforcement Administration Number (DEA Number)**

A registration number assigned to an entity that has to be authorized by the US Drug Enforcement Administration (DEA) to manufacture, distribute, research,

prescribe, or dispense a controlled substance for the purpose of tracking controlled substances. A valid DEA number consists of: 2 letters, 6 numbers, and 1 check digit. The first letter of the code identifies the type of registrant (P/R-Manufacturer/Distributor). The second letter is the first letter of the registrant's last name.

### **US Food and Drug Administration (FDA)**

US Federal Agency that oversees the regulation of food and health products within the US.

### **US Product Track**

TraceLink app. Tracks movement of products within the US supply chain.

### **User**

An individual associated with an entity or organization responsible for making use of product, process, or systems. A user must be an Owner or Partner (i.e. "Linked" within the context of an app).

### **User Application**

A set of apps that enable general functionality, such as receiving notifications and setting preferences. These apps are available to any registered user on TraceLink without the need to own or link to an app.

### **User Interface (UI)**

TraceLink web application for TraceLink customers.

## **V**

### **Validation**

The documented procedure for obtaining, recording, and interpreting the results required to establish that a process will consistently yield product complying with predetermined specifications.

### **Value Added Network (VAN)**

A hosted service that acts as an intermediary between business partners sharing standards based on proprietary data via shared business processes.

### **Verification**

Defined under DSCSA as a means of determining (i.e. verifying) whether the product identifier affixed to, or imprinted upon, a package or homogeneous case corresponds to the standardized numerical identifier or lot number and expiration date assigned to the product by the manufacturer or the repackager.

### **Verified-Accredited Wholesale Distributors (VAWD)**

An accreditation for pharmaceutical wholesale distribution facilities. Those wholesale distributors that achieve accreditation are in compliance with state and federal laws, and NABP's VAWD criteria.

### **Vert.x**

An open-source toolkit for building asynchronous apps on the JVM using reactive design patterns.

### **Verticle**

A unit of deployment of code for one or more event handlers. Each Jar corresponds to a verticle. Jars can dynamically load multiple verticles when an app or microservice starts up.

### **Virtual (Manufacturer or CMO)**

A company that outsources services to a Manufacturer/CMO.

## **W**

### **Warehouse Management System (WMS)**

A software application that supports the day-to-day operations in a warehouse. Enables centralized management of tasks such as tracking inventory levels and stock locations.

**Web Application (Apps)**

Web-based applications are accessed over a network connection and run inside of a web browser.

**Web Service Definition Language (WSDL)**

An XML-based interface used to describe the functionality of a web service. In TraceLink, WSDLs are typically used to implement synchronous serial number requests and responses.

**Wholesale Distribution**

The movement of a drug where the recipient is not a consumer/patient.

**Wholesale Distributor**

A company that purchases products from manufacturers and then sells them to an entity other than a consumer or patient.

**Workflow**

Actions that are enabled in TraceLink based on particular events. For example, these events may trigger government reports (e.g. shipping, receipt).

**Workflow Manager**

An Opus system app, provided by TraceLink, that executes base state transition conditions and transition actions as well as the custom transitions and actions for a given business object (e.g. Incidents).

**Workflow Studio**

A part of the Solution Builder. Extends workflows and add business logic and conditions. Customers or Solution Partners use the Workflow Studio to extend workflows by adding business logic and conditions, and sub-states and transitions to the base workflow states and transitions to the base workflow states (e.g. Review step, Approval step) and add logic conditions and handlers.

**Worldview**

A collection of lightweight data access APIs that Opus apps can use to interact with data services, including S3, Dynamo, EBS, RDS, Memcache, Redis, and TLDB. The Worldview API is part of the TL Runtime, and is available to every Opus app.

**X****XSD**

Describes the structure/schema of an XML document.