



# Federal Implementation Guideline for Electronic Data Interchange

ASC X12 003040 Transaction Set 852  
Product Activity Data  
(Revision 1)

Implementation Convention



U.S. DEPARTMENT OF COMMERCE  
Technology Administration  
National Institute of  
Standards and Technology

QC

100

.U57

NO. 881-82

1998

**T**he National Institute of Standards and Technology was established in 1988 by Congress to “assist industry in the development of technology . . . needed to improve product quality, to modernize manufacturing processes, to ensure product reliability . . . and to facilitate rapid commercialization . . . of products based on new scientific discoveries.”

NIST, originally founded as the National Bureau of Standards in 1901, works to strengthen U.S. industry’s competitiveness; advance science and engineering; and improve public health, safety, and the environment. One of the agency’s basic functions is to develop, maintain, and retain custody of the national standards of measurement, and provide the means and methods for comparing standards used in science, engineering, manufacturing, commerce, industry, and education with the standards adopted or recognized by the Federal Government.

As an agency of the U.S. Commerce Department’s Technology Administration, NIST conducts basic and applied research in the physical sciences and engineering, and develops measurement techniques, test methods, standards, and related services. The Institute does generic and precompetitive work on new and advanced technologies. NIST’s research facilities are located at Gaithersburg, MD 20899, and at Boulder, CO 80303. Major technical operating units and their principal activities are listed below. For more information contact the Publications and Program Inquiries Desk, 301-975-3058.

---

### **Office of the Director**

- National Quality Program
- International and Academic Affairs

### **Technology Services**

- Standards Services
- Technology Partnerships
- Measurement Services
- Technology Innovation
- Information Services

### **Advanced Technology Program**

- Economic Assessment
- Information Technology and Applications
- Chemical and Biomedical Technology
- Materials and Manufacturing Technology
- Electronics and Photonics Technology

### **Manufacturing Extension Partnership Program**

- Regional Programs
- National Programs
- Program Development

### **Electronics and Electrical Engineering Laboratory**

- Microelectronics
- Law Enforcement Standards
- Electricity
- Semiconductor Electronics
- Electromagnetic Fields<sup>1</sup>
- Electromagnetic Technology<sup>1</sup>
- Optoelectronics<sup>1</sup>

### **Chemical Science and Technology Laboratory**

- Biotechnology
- Physical and Chemical Properties<sup>2</sup>
- Analytical Chemistry
- Process Measurements
- Surface and Microanalysis Science

### **Physics Laboratory**

- Electron and Optical Physics
- Atomic Physics
- Optical Technology
- Ionizing Radiation
- Time and Frequency<sup>1</sup>
- Quantum Physics<sup>1</sup>

### **Materials Science and Engineering Laboratory**

- Intelligent Processing of Materials
- Ceramics
- Materials Reliability<sup>1</sup>
- Polymers
- Metallurgy
- NIST Center for Neutron Research

### **Manufacturing Engineering Laboratory**

- Precision Engineering
- Automated Production Technology
- Intelligent Systems
- Fabrication Technology
- Manufacturing Systems Integration

### **Building and Fire Research Laboratory**

- Structures
- Building Materials
- Building Environment
- Fire Safety Engineering
- Fire Science

### **Information Technology Laboratory**

- Mathematical and Computational Sciences<sup>2</sup>
- Advanced Network Technologies
- Computer Security
- Information Access and User Interfaces
- High Performance Systems and Services
- Distributed Computing and Information Services
- Software Diagnostics and Conformance Testing

---

<sup>1</sup>At Boulder, CO 80303.

<sup>2</sup>Some elements at Boulder, CO.

---

# **Federal Implementation Guideline for Electronic Data Interchange**

## **ASC X12 003040 Transaction Set 852 Product Activity Data (Revision 1)**

### **Implementation Convention**

Electronic Commerce Acquisition Program Management Office  
Standard Management Committee - Secretariat  
National Institute of Standards and Technology  
Gaithersburg, MD 20899-0001

Editor: Dr. Jean-Philippe Favreau

August 1998



**U.S. DEPARTMENT OF COMMERCE**  
William M. Daley, Secretary

**Technology Administration**  
Gary R. Bachula, Acting Under Secretary for Technology

**National Institute of Standards and Technology**  
Raymond G. Kammer, Director

## **Reports on Information Technology**

The National Institute of Standards and Technology (NIST)'s Information Technology Laboratory (ITL) develops standards and guidelines, provides technical assistance, and conducts research for computers and resources. As part of the overall federal effort to establish a single face to industry for conducting electronic commerce, ITL has been designated as the organization responsible for coordinating the development of Federal Implementation Conventions (ICs) for Electronic Data Interchange (EDI). ICs are defined by functional-area experts who create and select options from standard EDI Transaction Sets to yield the implementations to be used for practical EDI. These ICs are made available to federal agencies and industry by electronic means and this Special Publication Series.

**National Institute of Standards and Technology Special Publication 881-82**  
**Natl. Inst. Stand. Technol. Spec. Publ. 881-82, 14 pages (Aug. 1998)**  
**CODEN: NSPUE2**

**U.S. GOVERNMENT PRINTING OFFICE**  
**WASHINGTON: 1998**

---

# 852 Product Activity Data

Functional Group ID=**PD**

## Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Product Activity Data Transaction Set (852) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used by a distributor, warehouse, or retailer to advise a trading partner of inventory, sales, and other product activity information. Product activity data enables a trading partner to plan and ship, or propose inventory replenishment quantities, for distribution centers, warehouses or retail outlets. The receiver of the transaction set will maintain some type of inventory/product movement records for its trading partners to enable replenishment calculations based on data provided by the distributor, warehouse or retailer.

## Notes:

1. Organizations use this transaction set to provide asset balance and point of sale information to vendors responsible for replenishing distribution centers, warehouses or retail outlets.
2. Use a single occurrence of this transaction set to report asset balance and point of sale information to a single vendor for a single distribution center, warehouse or retail outlet.

## Heading:

|                     | Pos.<br>No. | Seg.<br>ID | Name  | Req.<br>Des. | Max.Use | Loop<br>Repeat | Notes and<br>Comments |
|---------------------|-------------|------------|---|--------------|---------|----------------|-----------------------|
| Must Use            | 010         | ST         | Transaction Set Header                          | M            | 1       |                |                       |
| Must Use            | 020         | XQ         | Reporting Date/Action                           | M            | 1       |                |                       |
| Must Use            | 030         | XPO        | Preassigned Purchase Order Numbers              | O            | >1      |                |                       |
| Not Used            | 040         | N9         | Reference Number                                | O            | >1      |                |                       |
| Not Used            | 050         | PER        | Administrative Communications Contact           | O            | 3       |                |                       |
| <b>LOOP ID - N1</b> |             |            |   |              |         | <b>200</b>     |                       |
|                     | 060         | N1         | Name  | O            | 1       |                | n1                    |
| Not Used            | 070         | N2         | Additional Name Information                     | O            | 1       |                |                       |
| Not Used            | 080         | N3         | Address Information                             | O            | 2       |                |                       |
| Not Used            | 090         | N4         | Geographic Location                             | O            | 1       |                |                       |
| Not Used            | 100         | FOB        | F.O.B. Related Instructions                     | O            | 1       |                |                       |
| Not Used            | 110         | TD5        | Carrier Details (Routing Sequence/Transit Time) | O            | 1       |                |                       |
| Not Used            | 120         | DTM        | Date/Time/Period                                | O            | >1      |                |                       |
| Not Used            | 130         | N9         | Reference Number                                | O            | >1      |                |                       |
| Not Used            | 140         | PER        | Administrative Communications Contact           | O            | 3       |                |                       |

## Detail:

|                      | Pos.<br>No. | Seg.<br>ID | Name                  | Req.<br>Des. | Max.Use | Loop<br>Repeat | Notes and<br>Comments |
|----------------------|-------------|------------|-----------------------|--------------|---------|----------------|-----------------------|
| <b>LOOP ID - LIN</b> |             |            |                       |              |         | <b>999999</b>  |                       |
| Must Use             | 150         | LIN        | Item Identification   | O            | 1       |                |                       |
| Not Used             | 160         | CTP        | Pricing Information   | O            | 25      |                |                       |
| Not Used             | 170         | PO4        | Item Physical Details | O            | 1       |                |                       |
| Not Used             | 171         | N9         | Reference Number      | O            | >1      |                |                       |

|          |     |     |                            |   |    |    |
|----------|-----|-----|----------------------------|---|----|----|
| Not Used | 175 | AMT | Monetary Amount            | O | 10 |    |
|          |     |     | <b>LOOP ID - ZA</b>        |   |    | 99 |
| Must Use | 180 | ZA  | Product Activity Reporting | M | 1  | n2 |
| Not Used | 190 | CTP | Pricing Information        | O | 25 |    |
| Not Used | 200 | SDQ | Destination Quantity       | O | >1 |    |

**Summary:**

|          | <u>Pos.</u> | <u>Seg.</u> | <u>Name</u>             | <u>Req.</u> | <u>Max.Use</u> | <u>Loop</u>   | <u>Notes and</u> |
|----------|-------------|-------------|-------------------------|-------------|----------------|---------------|------------------|
|          | <u>No.</u>  | <u>ID</u>   |                         | <u>Des.</u> |                | <u>Repeat</u> | <u>Comments</u>  |
| Must Use | 210         | CTT         | Transaction Totals      | O           | 1              |               | n3               |
| Must Use | 220         | SE          | Transaction Set Trailer | M           | 1              |               |                  |

**Transaction Set Notes**

1. The reporting location is required. The reporting location is specified explicitly in the N1 segment using the code RL in N101, or implicitly using the SDQ segment (Table 2) with the location data elements. They are mutually exclusive (the SDQ and the N1 with N101 containing RL).
2. The quantity for the item identified in the LIN segment is required. Quantity is specified either in the ZA segment (ZA02) or in the SDQ segment, but not in both.
3. The number of line items (CTT01) is the accumulation of the number of LIN segments. Hash total (CTT02) is not used in this transaction set.  
When sending item and activity data in the LIN loop, the CTT segment is required.

**Segment:** **ST** Transaction Set Header  
**Position:** 010  
**Loop:**  
**Level:** Heading  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the start of a transaction set and to assign a control number  
**Syntax Notes:**  
**Semantic Notes:** 1 The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).  
**Comments:**

**Data Element Summary**

|          | <u>Ref. Des.</u> | <u>Data Element</u> | <u>Name</u>   | <u>Attributes</u> |
|----------|------------------|---------------------|---|-------------------|
| Must Use | ST01             | 143                 | Transaction Set Identifier Code<br>Code uniquely identifying a Transaction Set  | M ID 3/3          |
|          |                  |                     | 852 X12.52 Product Activity Data  |                   |
| Must Use | ST02             | 329                 | Transaction Set Control Number<br>Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set | M AN 4/9          |

**Segment:** XQ Reporting Date/Action  
**Position:** 020  
**Loop:**  
**Level:** Heading  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To specify reporting date and action to be taken  
**Syntax Notes:**  
**Semantic Notes:** 1 XQ02 is the reporting date. If reporting a date range, then XQ02 is the start date and XQ03 is the end date.  
**Comments:**

**Data Element Summary**

|          | <u>Ref.</u><br><u>Des.</u> | <u>Data</u><br><u>Element</u> | <u>Name</u>   | <u>Attributes</u> |
|----------|----------------------------|-------------------------------|---|-------------------|
| Must Use | XQ01                       | 305                           | Transaction Handling Code<br>Code designating the action to be taken by all parties<br>F Plan and Submit Suggested Purchase Order(s)<br>G Plan Order(s) and Ship Product<br>H Notification Only | M ID 1/1          |
| Must Use | XQ02                       | 373                           | Date<br>Date (YYMMDD)   | M DT 6/6          |
| Not Used | XQ03                       | 373                           | Date<br>Date (YYMMDD)   | O DT 6/6          |



**Segment:** **XPO** Preassigned Purchase Order Numbers  
**Position:** 030  
**Loop:**  
**Level:** Heading  
**Usage:** Optional (Must Use)  
**Max Use:** >1  
**Purpose:** To transmit preassigned purchase order numbers  
**Syntax Notes:** 1 If either XPO03 or XPO04 is present, then the other is required.  
**Semantic Notes:** 1 XPO01 is the preassigned purchase order number. If a range of purchase order numbers is to be transmitted, use XPO01 for the first number and XPO02 as the ending number.  
**Comments:** 1 XPO03 and XPO04 specify the location that the purchase order numbers apply to.

**Data Element Summary**

|          | <u>Ref.</u><br><u>Des.</u> | <u>Data</u><br><u>Element</u> | <u>Name</u>   | <u>Attributes</u> |
|----------|----------------------------|-------------------------------|---|-------------------|
| Must Use | XPO01                      | 324                           | <b>Purchase Order Number</b><br>Identifying number for Purchase Order assigned by the orderer/purchaser<br><i>Agency preassigned purchase order number. There will be a separate purchase order number for each warehouse receiving location.</i> | M AN 1/22         |
| Not Used | XPO02                      | 324                           | <b>Purchase Order Number</b><br>Identifying number for Purchase Order assigned by the orderer/purchaser   | O AN 1/22         |
| Not Used | XPO03                      | 66                            | <b>Identification Code Qualifier</b><br>Code designating the system/method of code structure used for Identification Code (67)  | X ID 1/2          |
| Not Used | XPO04                      | 67                            | <b>Identification Code</b><br>Code identifying a party or other code  | X AN 2/17         |

**Segment:** N1 Name  
**Position:** 060  
**Loop:** N1 Optional  
**Level:** Heading  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To identify a party by type of organization, name, and code  
**Syntax Notes:** 1 At least one of N102 or N103 is required.  
 2 If either N103 or N104 is present, then the other is required.  
**Semantic Notes:**  
**Comments:** 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.  
 2 N105 and N106 further define the type of entity in N101.

#### Data Element Summary

|          | <u>Ref.</u><br><u>Des.</u> | <u>Data</u><br><u>Element</u> | <u>Name</u>   | <u>Attributes</u> |
|----------|----------------------------|-------------------------------|---|-------------------|
| Must Use | N101                       | 98                            | <b>Entity Identifier Code</b><br>Code identifying an organizational entity, a physical location, or an individual<br>RL Reporting Location  | M ID 2/2          |
| Not Used | N102                       | 93                            | <b>Name</b><br>Free-form name   | X AN 1/35         |
| Must Use | N103                       | 66                            | <b>Identification Code Qualifier</b><br>Code designating the system/method of code structure used for Identification Code (67)<br>1 D-U-N-S Number, Dun & Bradstreet<br>9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix<br>10 Department of Defense Activity Address Code (DODAAC)<br>54 Warehouse<br>M4 Department of Defense Routing Identifier Code (RIC)<br>An integral and predetermined participant in an established logistical system performing general logistic control, distribution, and storage functions | X ID 1/2          |
| Must Use | N104                       | 67                            | <b>Identification Code</b><br>Code identifying a party or other code<br><i>Enter the code applicable to the warehouse reporting location.</i>   | X AN 2/17         |
| Not Used | N105                       | 706                           | <b>Entity Relationship Code</b><br>Code describing entity relationship  | O ID 2/2          |
| Not Used | N106                       | 98                            | <b>Entity Identifier Code</b><br>Code identifying an organizational entity, a physical location, or an individual   | O ID 2/2          |

**Segment:** **LIN** Item Identification  
**Position:** 150  
**Loop:** LIN Optional (Must Use)  
**Level:** Detail  
**Usage:** Optional (Must Use)  
**Max Use:** 1  
**Purpose:** To specify basic item identification data  
**Syntax Notes:**

- 1 If LIN04 is present, then LIN05 is required.
- 2 If LIN06 is present, then LIN07 is required.
- 3 If LIN08 is present, then LIN09 is required.
- 4 If LIN10 is present, then LIN11 is required.
- 5 If LIN12 is present, then LIN13 is required.
- 6 If LIN14 is present, then LIN15 is required.
- 7 If LIN16 is present, then LIN17 is required.
- 8 If LIN18 is present, then LIN19 is required.
- 9 If LIN20 is present, then LIN21 is required.
- 10 If LIN22 is present, then LIN23 is required.
- 11 If LIN24 is present, then LIN25 is required.
- 12 If LIN26 is present, then LIN27 is required.
- 13 If LIN28 is present, then LIN29 is required.
- 14 If LIN30 is present, then LIN31 is required.

**Semantic Notes:**

- 1 LIN01 is the line item identification

**Comments:**

- 1 See the Data Dictionary for a complete list of ID's.
- 2 LIN02 through LIN31 provide for fifteen (15) different product/service ID's for each item. For Example: Case, Color, Drawing No., UPC No., ISBN No., Model No., SKU.

#### Data Element Summary

|          | <u>Ref.</u> | <u>Data</u>    | <u>Name</u>   | <u>Attributes</u> |
|----------|-------------|----------------|---|-------------------|
|          | <u>Des.</u> | <u>Element</u> |   |                   |
| Must Use | LIN01       | 350            | Assigned Identification<br>Alphanumeric characters assigned for differentiation within a transaction set<br><i>Enter Agency unique system assigned number.</i>  | O AN 1/11         |
| Must Use | LIN02       | 235            | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in Product/Service ID (234)<br>FS National Stock Number<br>SK Stock Keeping Unit (SKU)<br>UA U.P.C./EAN Case Code (2-5-5)<br>UD U.P.C./EAN Consumer Package Code (2-5-5)<br>UI U.P.C. Consumer Package Code (1-5-5) | M ID 2/2          |
| Must Use | LIN03       | 234            | Product/Service ID<br>Identifying number for a product or service<br><i>Enter the code of the product whose activity is being reported.</i>   | M AN 1/30         |
| Not Used | LIN04       | 235            | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in Product/Service ID (234)   | O ID 2/2          |
| Not Used | LIN05       | 234            | Product/Service ID<br>Identifying number for a product or service   | X AN 1/30         |
| Not Used | LIN06       | 235            | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in Product/Service ID (234)   | O ID 2/2          |
| Not Used | LIN07       | 234            | Product/Service ID<br>Identifying number for a product or service   | X AN 1/30         |

|          |       |     |  |   |         |
|----------|-------|-----|--|---|---------|
| Not Used | LIN08 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN09 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN10 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN11 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN12 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN13 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN14 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN15 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN16 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN17 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN18 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN19 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN20 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN21 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN22 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN23 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN24 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN25 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN26 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN27 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN28 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in<br>Product/Service ID (234) | O | ID 2/2  |
| Not Used | LIN29 | 234 | Product/Service ID<br>Identifying number for a product or service  | X | AN 1/30 |
| Not Used | LIN30 | 235 | Product/Service ID Qualifier<br>Code identifying the type/source of the descriptive number used in                             | O | ID 2/2  |

Not Used

LIN31

234

Product/Service ID (234)

**Product/Service ID**

Identifying number for a product or service

X AN 1/30

**Segment:** **ZA** Product Activity Reporting  
**Position:** 180  
**Loop:** ZA Mandatory  
**Level:** Detail  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To provide activity details concerning product being reported  
**Syntax Notes:**

- 1 If either ZA02 or ZA03 is present, then the other is required.
- 2 If either ZA04 or ZA05 is present, then the other is required.
- 3 If either ZA06 or ZA07 is present, then the other is required.

**Semantic Notes:**  
**Comments:**

**Data Element Summary**

|          | <u>Ref.</u><br><u>Des.</u> | <u>Data</u><br><u>Element</u> | <u>Name</u>   | <u>Attributes</u> |
|----------|----------------------------|-------------------------------|---|-------------------|
| Must Use | ZA01                       | 859                           | <b>Activity Code</b><br>Code identifying activity details for the product being reported<br><i>Enter QA in first iteration of ZA loop. Enter QS in second iteration of ZA loop. Enter QL if required in third iteration of ZA loop. Enter QM if required in fourth iteration of ZA loop. QL/QM entries specify the quantity range vendor is required to maintain.</i> | M ID 2/2          |
|          |                            |                               | QA Current Inventory Quantity Available for Shipment or Sale<br>Indicates the quantity currently available to be sold or shipped<br>QL Minimum Inventory Quantity<br>The minimum inventory quantity for replenishment purposes<br>QM Maximum Inventory Quantity<br>The maximum inventory quantity for replenishment purposes<br>QS Quantity Sold                      |                   |
| Must Use | ZA02                       | 380                           | <b>Quantity</b><br>Numeric value of quantity<br><i>Enter Quantity applicable to QA/QS/QL/QM.</i>  | X R 1/15          |
| Must Use | ZA03                       | 355                           | <b>Unit or Basis for Measurement Code</b><br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken<br><i>Enter unit of issue for item being reported.</i><br>Refer to 003040 Data Element Dictionary for acceptable code values.   | X ID 2/2          |
| Not Used | ZA04                       | 374                           | <b>Date/Time Qualifier</b><br>Code specifying type of date or time, or both date and time   | X ID 3/3          |
| Not Used | ZA05                       | 373                           | <b>Date</b><br>Date (YYMMDD)  | X DT 6/6          |
| Not Used | ZA06                       | 128                           | <b>Reference Number Qualifier</b><br>Code qualifying the Reference Number.  | X ID 2/2          |
| Not Used | ZA07                       | 127                           | <b>Reference Number</b><br>Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.  | X AN 1/30         |

**Segment:** **CTT** Transaction Totals  
**Position:** 210  
**Loop:**  
**Level:** Summary  
**Usage:** Optional (Must Use)  
**Max Use:** 1  
**Purpose:** To transmit a hash total for a specific element in the transaction set  
**Syntax Notes:** 1 If CTT03 is present, then CTT04 is required.  
 2 If CTT05 is present, then CTT06 is required.  
**Semantic Notes:**  
**Comments:** 1 This segment is intended to provide hash totals to validate transaction completeness and correctness.

**Data Element Summary**

|   | <u>Ref.</u> | <u>Data</u>    | <u>Name</u>  | <u>Attributes</u> |
|---|-------------|----------------|--|-------------------|
|   | <u>Des.</u> | <u>Element</u> |  |                   |
| Must Use  | CTT01       | 354            | <b>Number of Line Items</b><br>Total number of line items in the transaction set<br><i>Enter the number of occurrences of LIN.</i>   | M N0 1/6          |
| Not Used  | CTT02       | 347            | <b>Hash Total</b><br>Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. | O R 1/10          |
| Example:<br><br>-.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ----- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field. |             |                |  |                   |
| Not Used  | CTT03       | 81             | <b>Weight</b><br>Numeric value of weight   | O R 1/10          |
| Not Used  | CTT04       | 355            | <b>Unit or Basis for Measurement Code</b><br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken  | X ID 2/2          |
| Not Used  | CTT05       | 183            | <b>Volume</b><br>Value of volumetric measure   | O R 1/8           |
| Not Used  | CTT06       | 355            | <b>Unit or Basis for Measurement Code</b><br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken  | X ID 2/2          |
| Not Used  | CTT07       | 352            | <b>Description</b><br>A free-form description to clarify the related data elements and their content   | O AN 1/80         |

**Segment:** **SE** Transaction Set Trailer  
**Position:** 220  
**Loop:**  
**Level:** Summary  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 SE is the last segment of each transaction set.

**Data Element Summary**

|          | <u>Ref.</u><br><u>Des.</u> | <u>Data</u><br><u>Element</u> | <u>Name</u>   | <u>Attributes</u> |
|----------|----------------------------|-------------------------------|---|-------------------|
| Must Use | SE01                       | 96                            | <b>Number of Included Segments</b><br>Total number of segments included in a transaction set including ST and SE segments   | M N0 1/10         |
| Must Use | SE02                       | 329                           | <b>Transaction Set Control Number</b><br>Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set<br><i>Enter the same number cited in ST02.</i> | M AN 4/9          |







# **NIST** *Technical Publications*

## *Periodical*

---

**Journal of Research of the National Institute of Standards and Technology**—Reports NIST research and development in those disciplines of the physical and engineering sciences in which the Institute is active. These include physics, chemistry, engineering, mathematics, and computer sciences. Papers cover a broad range of subjects, with major emphasis on measurement methodology and the basic technology underlying standardization. Also included from time to time are survey articles on topics closely related to the Institute's technical and scientific programs. Issued six times a year.

## *Nonperiodicals*

---

**Monographs**—Major contributions to the technical literature on various subjects related to the Institute's scientific and technical activities.

**Handbooks**—Recommended codes of engineering and industrial practice (including safety codes) developed in cooperation with interested industries, professional organizations, and regulatory bodies.

**Special Publications**—Include proceedings of conferences sponsored by NIST, NIST annual reports, and other special publications appropriate to this grouping such as wall charts, pocket cards, and bibliographies.

**National Standard Reference Data Series**—Provides quantitative data on the physical and chemical properties of materials, compiled from the world's literature and critically evaluated. Developed under a worldwide program coordinated by NIST under the authority of the National Standard Data Act (Public Law 90-396). NOTE: The Journal of Physical and Chemical Reference Data (JPCRD) is published bimonthly for NIST by the American Chemical Society (ACS) and the American Institute of Physics (AIP). Subscriptions, reprints, and supplements are available from ACS, 1155 Sixteenth St., NW, Washington, DC 20056.

**Building Science Series**—Disseminates technical information developed at the Institute on building materials, components, systems, and whole structures. The series presents research results, test methods, and performance criteria related to the structural and environmental functions and the durability and safety characteristics of building elements and systems.

**Technical Notes**—Studies or reports which are complete in themselves but restrictive in their treatment of a subject. Analogous to monographs but not so comprehensive in scope or definitive in treatment of the subject area. Often serve as a vehicle for final reports of work performed at NIST under the sponsorship of other government agencies.

**Voluntary Product Standards**—Developed under procedures published by the Department of Commerce in Part 10, Title 15, of the Code of Federal Regulations. The standards establish nationally recognized requirements for products, and provide all concerned interests with a basis for common understanding of the characteristics of the products. NIST administers this program in support of the efforts of private-sector standardizing organizations.

*Order the following NIST publications—FIPS and NISTIRs—from the National Technical Information Service, Springfield, VA 22161.*

**Federal Information Processing Standards Publications (FIPS PUB)**—Publications in this series collectively constitute the Federal Information Processing Standards Register. The Register serves as the official source of information in the Federal Government regarding standards issued by NIST pursuant to the Federal Property and Administrative Services Act of 1949 as amended, Public Law 89-306 (79 Stat. 1127), and as implemented by Executive Order 11717 (38 FR 12315, dated May 11, 1973) and Part 6 of Title 15 CFR (Code of Federal Regulations).

**NIST Interagency or Internal Reports (NISTIR)**—The series includes interim or final reports on work performed by NIST for outside sponsors (both government and nongovernment). In general, initial distribution is handled by the sponsor; public distribution is handled by sales through the National Technical Information Service, Springfield, VA 22161, in hard copy, electronic media, or microfiche form. NISTIR's may also report results of NIST projects of transitory or limited interest, including those that will be published subsequently in more comprehensive form.

**U.S. Department of Commerce**  
National Institute of Standards  
and Technology  
Gaithersburg, MD 20899-0001

Official Business  
Penalty for Private Use \$300