

**Implementation Guidelines: ANSI X12 Transaction Set 824  
Application Advice**

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Information Systems and Business Process Improvement**

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**SECTION 1. REVISION STATUS**

| REVISION<br>NUMBER | DATE       | PAGES                                       | AUTHOR     |
|--------------------|------------|---|------------|
| R00/A              | 1995 12 05 | original draft                              | G. Masters |
| R00                | 1995 12 12 | original                                    | G. Masters |
| R01                | 1995 12 22 | fixed GS elements                           | G. Masters |
| R02                | 1996 01 31 | revised N1 segment                          | G. Masters |
| R03                | 1998 09 04 | added 080 to DTM01                          | G. Masters |
| R04                | 2000 03 07 | revised summary                             | G. Masters |
| R05                | 2000 03 22 | converted to 4010                           | G. Masters |
| R06                | 2001 01 15 | added REF~SE                                | G. Masters |
| R07                | 2001 04 24 | for suppliers RMR                           | G. Masters |
| R08                | 2003 04 04 | Revised element &<br>sub-element separator. | G. Masters |
| R09                | 2008 06 23 | Name change                                 | G. Masters |

**SECTION 2. PREFACE**

This document is intended to provide the details on the construct of an electronic Application Advice 824 transaction set to satisfy Algoma's requirements.

Essar Steel Algoma Inc. is committed to supporting and using the American National Standards Institute (ANSI) X12 national standards. However, the standards are broad in scope and flexible in methods of implementing. These are the Algoma specific requirements for the Application Advice.

Any questions or concerns regarding the Algoma application advice or electronic data communication with Algoma may be directed to:

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**SECTION 3. SUMMARY**

In order for Essar Steel Algoma Inc. to efficiently service its customers, Algoma has implemented the Application Advice ANSI X12 824 transaction set. This transaction set will be used to report errors found in the data content edit of inbound transactions (856, 861 and 870).

It is very important not to confuse the Application Advice (824) with the Functional Acknowledgement (997). The 997 only provides the results of a syntactical check of the incoming transaction and is not concerned with the data content.

The 824 reports on the results of the analysis of the actual data as processed by Algoma. All data fields on the inbound transaction are checked for validity and adherence to Algoma's requirements. Any discrepancies in the inbound data will be reported via the 824. The supplier of the inbound transaction must use this information to resolve the discrepancies and retransmit corrected data immediately.

**NOTE:** If any one piece of information is rejected on an ASN, the entire ASN is rejected. The ASN must be corrected and the complete ASN must be resent to Algoma.

All 824 transactions must be acknowledged with a Functional Acknowledgement (997).

Essar Steel Algoma Inc. uses the GXS network for electronic data interchange.

Algoma's DUNS number is 201495124.

**SECTION 4. INTERCHANGE ENVELOP**

**ISA - Interchange Control Header**

Segment: ISA - Interchange Control Header

Level: n/a

Max Use/Loops: 1 per interchange/none

Purpose: To start and identify an interchange of one or more functional groups and interchange related control segments.

General Information: None

Example: ISA~00~ ~00~ ~01~201495124 ~  
 01~9999999999 ~940901~1312~U~00401~000000001~1~  
 P~` N/L

| Elem ID | Elem# | Name                              | Features   | Comments  |
|---------|-------|-----------------------------------|------------|---|
| -----   | ----- | -----                             | -----      | -----   |
| ISA01   | 744   | Authorization Information Qual    | M ID 02/02 | "00" (Zeros)<br>No authorization information present                          |
| ISA02   | 745   | Authorization Information         | M AN 10/10 | Use 10 spaces   |
| ISA03   | 746   | Security Information Qual         | M ID 02/02 | "00" (Zeros)<br>No security information present                               |
| ISA04   | 747   | Security Information              | M AN 10/10 | Use 10 spaces   |
| ISA05   | 704   | Interchange Sender ID Qualifier   | M ID 02/02 | "01" for DUNS number.   |
| ISA06   | 705   | Interchange Sender ID             | M ID 15/15 | "201495124"<br>left justified.  |
| ISA07   | 704   | Interchange Receiver ID Qualifier | M ID 02/02 | "01" for DUNS number.<br>"09" for phone number.<br>"ZZ" for mutually defined. |
| ISA08   | 706   | Interchange Receiver ID           | M ID 15/15 | Receiver's ID number<br>left justified.                                       |
| ISA09   | 373   | Interchange Date                  | M DT 06/06 | Date of Transmission (YYMMDD)   |
| ISA10   | 337   | Interchange Time                  | M TM 04/04 | Time of Transmission (HHMM) 24 hour clock                                     |

Segment:                   ISA - Interchange Control Header

| Elem ID<br>----- | Elem#<br>----- | Name<br>-----              | Features<br>----- | Comments<br>-----  |
|------------------|----------------|----------------------------|-------------------|--|
| ISA11            | 726            | Interchange Standard<br>ID | M ID 01/01        | "U" for USA  |
| ISA12            | 703            | Interchange Version<br>ID  | M ID 05/05        | "00401"  |
| ISA13            | 709            | Interchange Control<br>ID  | M N0 09/09        | Sequential Number<br>starting with 1 and<br>incremented by 1 for<br>each ISA sent. |
| ISA14            | 749            | Acknowledgement<br>ID      | M ID 01/01        | "0" for acknowledge-<br>ment not required.   |
| ISA15            | 748            | Test Indicator             | M ID 01/01        | "P" for production<br>"T" for test   |
| ISA16            | 701            | Sub Element<br>Separator   | M AN 01/01        | Must be different<br>then the element<br>separator.                                |

**4.1 Element separators and segment terminator**

Algoma uses the following characters:

- Segment terminator            EBCDIC    Hex "1C"
- Element separator            EBCDIC    Hex "5C"
- Sub element separator       EBCDIC    Hex "A1"

**4.2 IEA - Interchange Control Trailer**

Segment: IEA - Interchange Control Trailer

Level: n/a

Max Use/Loops: 1 per interchange/none

Purpose: To define the end of an interchange of one or more functional groups and interchange related control segments.

General Information: None

Example: IEA~3~000000001 N/L

| Elem ID | Elem# | Name                       | Features   | Comments  |
|---------|-------|----------------------------|------------|---|
| -----   | ----- | -----                      | -----      | -----   |
| IEA01   | 405   | Number of Included Groups  | M N0 01/05 | Number of GS segments included between ISA and this IEA |
| IEA02   | 709   | Interchange Control Number | M N0 09/09 | Must match ISA13  |

**SECTION 5. FUNCTIONAL GROUP ENVELOPE**

**GS - Functional Group Header**

Segment: GS - Functional Group Header

Level: n/a

Max Usage/Loops: 1/None

Purpose: The GS segment is used to indicate the beginning of a functional group and to provide control information

General Information: None

Example: GS~AG~201495124~999999999~20010420~1312~1~X~004010 N/L

| Elem ID | Elem# | Name                            | Features   | Comments  |
|---------|-------|---------------------------------|------------|---|
| -----   | ----- | -----                           | -----      | -----   |
| GS01    | 479   | Functional ID                   | M ID 02/02 | "AG"  |
| GS02    | 142   | Application Sender Code         | M ID 02/12 | Sender's ID number.   |
| GS03    | 124   | Application Receiver Code       | M ID 02/12 | Receiver's ID number.   |
| GS04    | 29    | Data Interchange Date           | M DT 08/08 | Date created (CCYYMMDD)   |
| GS05    | 30    | Data Interchange Time           | M TM 04/04 | Time created (HHMM)   |
| GS06    | 28    | Data Interchange Control Number | M N0 01/09 | Start with 1 and increment by 1 for each subsequent GS between interchanges |
| GS07    | 455   | Responsibility Agency           | M ID 01/02 | Use "X" for ANSI X12 code formats   |
| GS08    | 480   | Version                         | M ID 01/12 | "004010"  |

**5.1 GE - Functional Group Trailer**

Segment: GE - Functional Group Trailer

Level: n/a

Max Usage/Loops: 1 per functional group/none

Purpose: To define (specify) the end of a functional group of related transaction sets.

General Information: None

Example: GE~3~1 N/L

| Elem ID | Elem# | Name                                | Features   | Comments  |
|---------|-------|-------------------------------------|------------|---|
| -----   | ----- | -----                               | -----      | -----   |
| GE01    | 97    | Number of Included Transaction Sets | M N0 01/06 | Total count of transaction sets in functional group |
| GE02    | 28    | Data Interchange Control Number     | M N0 01/09 | Same as GS06 in the associated group header         |

**SECTION 6. 824 TRANSACTION SET**

**Data Segment Sequence**

|     |  |
|-----|--|
| ST  | Transaction Set Header                   |
| BGN | Beginning Segment for Application Advice |
| N1  | Name                                     |
| OTI | Original Transaction Identification      |
| REF | Reference Numbers                        |
| DTM | Date/Time Reference                      |
| TED | Technical Error Description              |
| SE  | Transaction Set Trailer                  |

**6.1 ST - Transaction Set Header**

Segment: ST - Transaction Set Header

Level: Header

Max Usage/Loops: 1/None

Purpose: To indicate the start of a transaction set and to assign a control number.

General Information: This segment is required. The transaction set control number (ST02) in this header must match the transaction set control number (SE02) in the transaction set trailer (SE).

Example: ST~824~0001 N/L

| Elem ID | Elem# | Name                           | Features   | Comments  |
|---------|-------|--------------------------------|------------|---|
| -----   | ----- | -----                          | -----      | -----   |
| ST01    | 143   | Transaction Set ID Code        | M ID 03/03 | Use "824"   |
| ST02    | 329   | Transaction Set Control Number | M AN 04/09 | A unique number assigned to each transaction set within a functional group. |

**6.2 BGN - Beginning Segment for Application Advice**

Segment: BGN - Beginning Segment for Application Advice

Level: Header

Max Usage/Loops: 1/None

Purpose: To indicate the beginning of an Application Advice Transaction Set and to transmit an identifying number, date and other basic data relating to the transaction set.

General Information: The date and time are the date and local time of the creation of the transaction.

Example: BGN~00~123456~19940916~1421 N/L

| Elem ID | Elem# | Name                         | Features   | Comments  |
|---------|-------|------------------------------|------------|---|
| -----   | ----- | -----                        | -----      | -----   |
| BGN01   | 353   | Transaction Set Purpose Code | M ID 02/02 | "00" - original   |
| BGN02   | 127   | Reference Number             | M AN 01/30 | A unique number generated by the receiver of the original document. |
| BGN03   | 373   | Date                         | M DT 08/08 | Creation date (CCYYMMDD)  |
| BGN04   | 337   | Time                         | C TM 04/08 | Creation time (HHMM) 24 hour clock.                                 |
| BGN05   | 623   | Time Code                    | O ID 02/02 | Not used.   |
| BGN06   | 127   | Reference Identification     | O AN 01/30 | Not used.   |
| BGN07   | 640   | Transaction Type Code        | O ID 02/02 | Not used.   |
| BGN08   | 306   | Action Code                  | O ID 01/02 | Not used.   |
| BGN09   | 786   | Security Level Code          | O ID 02/02 | Not used.   |

**6.3 N1 - Name**

Segment: N1 - Name

Level: Header

Max Usage/Loops: 1 per N1 loop whose max usage is 2.

Purpose: To identify a party by type of organization, name and code.

General Information: Ship-to and consignor or ship-to and ship-from segments will be sent.

Example: N1~CI~ACME~1~745942164 N/L  
N1~ST~ACCURIDE N/L

| Elem ID | Elem# | Name                     | Features   | Comments   |
|---------|-------|--------------------------|------------|--|
| -----   | ----- | -----                    | -----      | -----  |
| N101    | 98    | Entity Identifier Code   | M AN 02/03 | "ST" for ship-to<br>"CI" for consignor<br>"SF" for ship-from |
| N102    | 93    | Name                     | M AN 01/60 | Organization's name.   |
| N103    | 66    | ID Code Qualifier        | O ID 01/02 | "1" for DUNS number.<br>"ZZ" for mutually defined.           |
| N104    | 67    | ID Code                  | O AN 02/80 | DUNS number.   |
| N105    | 706   | Entity Relationship Code | O ID 02/02 | Not used.  |
| N106    | 98    | Entity Identifier Code   | O AN 02/03 | Not used.  |

**6.4 OTI - Original Transaction Identification**

Segment: OTI - Original Transaction Identification

Level: Detail

Max Usage/Loops: 1/10,000

Purpose: To identify the edited transaction set, the level at which the results of the edit are reported, and to indicate the accepted, rejected or accepted with change edit results.

General Information: One OTI loop is generated for each line item.

Example: OTI~IR~SI~123456~~~~~3452~3452~856 N/L

| Elem ID | Elem# | Name                             | Features   | Comments   |
|---------|-------|----------------------------------|------------|--|
| -----   | ----- | -----                            | -----      | -----  |
| OTI01   | 110   | Application Acknowledgement Code | M ID 01/02 | "IA" item accepted.<br>"IE" item accepted with error.<br>"IR" item rejected: re-check transaction set to insure accuracy before resending. |
| OTI02   | 128   | Reference Number Qualifier       | M ID 02/02 | "SI" Shipper's Identification (SID) number. See Data Element Dictionary section for complete list of values.                               |
| OTI03   | 127   | Reference Number                 | M AN 01/30 | Based on the value of OTI02.   |
| OTI04   | 142   | Application Sender's Code        | O AN 02/12 | Not used.  |
| OTI05   | 124   | Application Receiver's Code      | O AN 02/12 | Not used.  |
| OTI06   | 373   | Date                             | O DT 08/08 | Not used.  |
| OTI07   | 337   | Time                             | O TM 04/08 | Not used.  |
| OTI08   | 28    | Group Control Number             | O N0 01/09 | GS06 from original transaction.  |
| OTI09   | 329   | Transaction Set Control Number   | O AN 04/09 | ST02 from original transaction   |
| OTI10   | 143   | Transaction Set Identifier Code  | O ID 03/03 | Original transaction set ID.   |

Segment: OTI - Original Transaction Identification

| Elem ID | Elem# | Name                                 | Features   | Comments                         |
|---------|-------|--------------------------------------|------------|----------------------------------|
| -----   | ----- | -----                                | -----      | -----                            |
| OTI11   | 480   | Version/Release/<br>Industry ID Code | O ID 01/12 | Original transaction<br>version. |
| OTI12   | 353   | Transaction Set<br>Purpose Code      | O ID 02/02 | Not used.                        |
| OTI13   | 640   | Transaction Type<br>Code             | O ID 02/02 | Not used.                        |
| OTI14   | 346   | Application Type<br>Code             | O ID 02/02 | Not used.                        |
| OTI15   | 306   | Action Code                          | O ID 01/02 | Not used.                        |
| OTI16   | 305   | Transaction Handling<br>Code         | O ID 01/02 | Not used.                        |
| OTI17   | 641   | Status Reason Code                   | O ID 03/03 | Not used.                        |

**6.5 REF - Reference Numbers**

Segment: REF - Reference Numbers

Level: Detail

Max Usage/Loops: 12 per OTI loop.

Purpose: To transmit identifying numbers.

General Information: Used to specify reference numbers from the original transaction (i.e. bill of lading, heat, mill order item, processor piece ID, Algoma's mill/tag number).

Example: REF~BM~32418 N/L

| Elem ID | Elem# | Name                       | Features   | Comments  |
|---------|-------|----------------------------|------------|---|
| -----   | ----- | -----                      | -----      | -----   |
| REF01   | 128   | Reference Number Qualifier | M AN 02/03 | "BM" for BOL.<br>"HC" for heat.<br>See Data Element Dictionary section for a complete list of values. |
| REF02   | 127   | Reference Number           | M AN 01/30 | Based on REF01.   |
| REF03   | 352   | Description                | O AN 01/80 | Not used.   |

DTM - Date/Time Reference

Segment: DTM - Date/Time Reference

Level: Detail

Max Usage/Loops: 2 per OTI loop

Purpose: To specify pertinent dates and times.

General

Information: At least one occurrence of the DTM segment will be sent.  
 DTM01 will be 011 when in response to a shipment.  
 DTM01 will be 080 when in response to a ready status ASN.

Example: DTM~011~19940916~1421 N/L

| Elem ID | Elem# | Name                              | Features   | Comments  |
|---------|-------|-----------------------------------|------------|---|
| -----   | ----- | -----                             | -----      | -----   |
| DTM01   | 374   | Date/Time Qualifier               | M AN 03/03 | "011" for ASN ship date/time.<br>"009" Algoma process date/time.<br>"080" for date/time from ready status ASN |
| DTM02   | 373   | Date                              | M DT 08/08 | Date (CCYYMMDD)   |
| DTM03   | 337   | Time                              | M TM 04/08 | Time (HHMM)<br>24 hour clock.   |
| DTM04   | 623   | Time Code                         | O ID 02/02 | Not used.   |
| DTM05   | 1250  | Date Time Period Format Qualifier | O ID 02/03 | Not used.   |
| DTM06   | 1251  | Date Time Period                  | O AN 01/35 | Not used.   |

TED - Technical Error Description

Segment: TED - Technical Error Description

Level: Detail

Max Usage/Loops: 1/TED 10,000/OTI

Purpose: To identify the error and, if feasible, the erroneous segment, or data element, or both.

General Information: This segment will only be sent when an error is encountered.

Example: TED~003~INVALID ORDER NUMBER~~~~~33212 N/L

| Elem ID | Elem# | Name                                | Features   | Comments                      |
|---------|-------|-------------------------------------|------------|-------------------------------|
| -----   | ----- | -----                               | -----      | -----                         |
| TED01   | 647   | Application Error Condition Code    | M ID 01/03 | Algoma assigned error number. |
| TED02   | 3     | Free Form Message                   | O AN 01/60 | Error message.                |
| TED03   | 721   | Segment ID Code                     | O ID 02/03 | Not used.                     |
| TED04   | 719   | Segment Position in Transaction Set | O N0 01/06 | Not used.                     |
| TED05   | 722   | Element Position in Segment         | O N0 01/02 | Not used.                     |
| TED06   | 725   | Data Element Reference Number       | O N0 01/04 | Not used.                     |
| TED07   | 724   | Copy of Bad Data Element            | O AN 01/99 | Copy of bad element.          |
| TED08   | 961   | Data Element New Content            | O AN 01/99 | Not used.                     |

SE - Transaction Set Trailer

Segment: SE - Transaction Set Trailer

Level: Summary

Max Usage/Loops: 1/none.

Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segment).

General Information:

Example: SE~23~0001 N/L

| Elem ID | Elem# | Name                           | Features   | Comments     |
|---------|-------|--------------------------------|------------|--------------|
| -----   | ----- | -----                          | -----      | -----        |
| SE01    | 96    | Number of Included Segments    | M N0 01/06 |              |
| SE02    | 329   | Transaction Set Control Number | M AN 04/09 | Same as ST02 |

**SECTION 7. DATA ELEMENT DICTIONARY**

66 ID Code Qualifier  
1 DUNS number

98 Entity Identifier Code  
CI Consignor  
SF Ship from  
ST Ship to

110 Application Acknowledgement Code  
IA Item accepted  
IE Item accepted with error  
IR Item rejected

128 Reference Number Qualifier  
BM Bill of lading  
F8 Reference identification  
HC Heat number  
LS Mill/tag number  
MI Mill order item  
SI Shipper's Identification (SID) number  
SE Serial Number (Processor piece ID.)

353 Transaction Set Purpose Code  
00 Original

374 Date/Time Qualifier  
009 Receiver process date/time  
011 ASN ship date/time

647 Application Error Condition Code  
006 Duplicate  
007 Missing data  
009 Invalid date  
011 Not matching  
012 Invalid combination  
024 Other unlisted reason  
848 Incorrect data  
H Missing or invalid processing  
MQT Missing quantity  
ZZZ Mutually defined

**SECTION 8. 824 SAMPLE TRANSACTION**

ISA~00~ ~00~ ~01~201495124 ~01~  
207663412 ~940901~1312~U~00302~000000001~1~P~`  
GS~AG~207663412~201495124~20010420~1312~1~X~004010  
ST~824~0001  
BGN~00~20030401043000001~20030401~0430  
N1~ST~MISSING DATA~ZZ~ABCDEFGH 00  
N1~CI~MISSING DATA~ZZ~ABCDEFGH 00  
OTI~IR~SI~J425984~~~~~24~000240002~856~004010  
REF~BM~13097000  
DTM~011~20030331~0000  
DTM~009~20030401~0409  
TED~011~PO LINE ITEM DOES NOT EXIST ON PO/RLSE.~~~~~215472 0000 004  
TED~ZZZ~~~~~CORRECT AND RESEND ENTIRE ASN  
SE~21~0001  
ST~824~0002  
BGN~00~20030329050100001~20030329~0501  
N1~ST~ESSAR Steel Algoma Inc~1~201495124  
N1~SF~ANY COMPANY~ZZ~ABCDEFGH 00  
OTI~IR~SI~J415383~~~~~22~000220002~856~004010  
REF~PK~J415383  
REF~BV~000  
DTM~011~20030328~0000  
DTM~009~20030329~0432  
TED~007~MISSING PART NUMBER  
TED~ZZZ~~~~~CORRECT AND RESEND ENTIRE ASN  
SE~12~0002  
GE~2~1  
IEA~1~000000001