Implementation Guide for EDI Conventions

Planning Schedule Transaction Set (830)

AIAG Version 2040
ANSI ASC X12

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Document Change Log

Version	Date	Description
1.00	March 1, 2006	Document issued.
1.01	May 8, 2007	Added "An Asahi Tech Company" to the Metaldyne Title.
1.02	December 10, 2007	Add ISA ID for Metaldyne-Ramos in the "Metaldyne ISA and GS ID Information" chart.
1.03	February 26, 2010	Removed "An Asahi Tech Company" from the Metaldyne title. Removed some locations in the "Metaldyne ISA and GS ID Information" chart.
1.04	July 7, 2010	Updated the "Metaldyne ISA and GS ID Information" chart.
1.05	October 1, 2012	Added "A" = Past due – Ship immediate to the FST02 element.
1.06	March 1, 2015	Added "An MPG Company" to the Metaldyne Title.

Metaldyne's EDI documents are exchanged using the data messaging services of Covisint, a subsidiary of Compuware Corporation. You will have to approve the Trading Partner Relationship we have created in Covisint before EDI documents can be exchanged. Please set up relationships for all Metaldyne locations as defined on the following pages.

Segment: **ISA** – Interchange Control Header.

Level: Header

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

Examples: ISA*00* *00* *01*118733062 *01*201547189 *060217*1243*U*00204*000000467*0*P*|?

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
ISA01	I01	Authorization Information Qualifier	M ID 2/2	Yes	00 = No authorization information included
ISA02	I02	Authorization Information	M AN 10/10	Yes	If ISA01 = 00 use ten spaces
ISA03	I03	Security Information Qualifier	M ID 2/2	Yes	00 = No authorization present
ISA04	I04	Security Information	M ID 10/10	Yes	If ISA04 = 00 use ten spaces.
ISA05	I05	Interchange ID Qualifier	M ID 2/2	Yes	01 = Duns Number
ISA06	I06	Interchange Sender ID	M AN 15/15	Yes	See next page for Metaldyne IDs
ISA07	I05	Interchange ID Qualifier	M ID 2/2	Yes	01 = Duns Number 12 = Phone Number ZZ = Mutually Defined
ISA08	I07	Interchange Receiver ID	M AN 15/15	Yes	
ISA09	I08	Interchange Date	M DT /6/6	Yes	Creation Date (YYMMDD)
ISA10	I09	Interchange Time	M TM 4/4	Yes	Creation Time (HHMM)
ISA11	I10	Interchange Control Standards Identifier	M ID 1/1	Yes	U = USA
ISA12	I11	Interchange Control	M ID 5/5	Yes	Use 00204

		Version Number			
ISA13	I12	Interchange Control Number	M N0 9/9	Yes	Must be the same as IEA02. A sequential number starting with 1 and incremented by 1 for each ISA between sender and receiver
ISA14	I13	Acknowledgment Requested	M ID 1/1	Yes	1 = Acknowledgment required
ISA15	I14	Usage Indicator	M ID 1/1	Yes	P = Production data
ISA16	I15	Component Element Separator	M AN 1/1	Yes	

Segment: **GS** Functional Group Header

Level: Header

Purpose: To indicate the beginning of a functional group and to provide control information

Examples: GS~PS~118733062~201547189~060217~1243~467~X~002040

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
GS01	479	Functional Identifier Code	M ID 2/2	Yes	PS=Planning Schedule
GS02	142	Application Sender's Code	M AN 2/15	Yes	See next page for Metaldyne IDs
GS03	124	Application Receiver's Code	M AN 2/15	Yes	
GS04	029	Date	M DT 6/6	Yes	Date created. (YYMMDD)
GS05	030	Time	M TM 4/4	Yes	Time created (HHMM)
GS06	028	Group Control Number	M N0 1/9	Yes	This is a sequential number starting with 1 and incremented by 1 for each subsequent GS segment.
GS07	455	Responsible Agency Code	M ID ½	Yes	"X" = ASC X12
GS08	480	Version / Release / Industry Identifier Code	M AN 1/12	Yes	Use 002040

Metaldyne ISA and GS ID Information

Metaldyne Location	ISA ID	GS ID	EDI VAN
Driveline & BSM Products			
Metaldyne Bluffton 131 West Harvest Road Bluffton, Indiana 46714	01: 092041409	092041409	Covisint
Metaldyne Fremont 307 S. Tillotson Fremont, IN 46737	01: 005174933	005174933	Covisint
Metaldyne Twinsburg 8001 Bavaria Road Twinsburg,OH 44087	01: 785126632	785126632	Covisint
Sintered Products			
Metaldyne North Vernon 3100 North Highway #3 North Vernon, IN, 47265	01:840551634	840551634	Covisint
Metaldyne Ridgway 1149 Rocky Road Ridgway, PA 15853	01:063654768	063654768	Covisint
Metaldyne St. Marys 197 West Creek Road St. Marys PA 15857	01:079365222	079365222	Covisint
Metaldyne Warren 30500 Ryan Rd Warren, Mi 48092	01:884079021	884079021	Covisint
Vibration Control Products			
Metaldyne Litchfield 917 Anderson Road Litchfield, MI 49252	01:118733062	045245149	Covisint

Introduction.

Metaldyne requires its suppliers to be capable of EDI communications to maintain a competitive position in the automotive industry.

As of the release of this document Metaldyne is requiring suppliers of direct raw materials to electronically receive from Metaldyne material planning information. Other Metaldyne suppliers will be notified of the need to comply with EDI requirements on a selected basis.

This document presents the Planning Schedule (document 830) transaction set as implemented at Metaldyne. This specification closely follows the AIAG 2040 specification for the Planning Schedule (830).

Metaldyne requires a 997 Functional Acknowledgement be returned for each 830 Planning Schedule sent to your company. Any Version is acceptable.

Planning Schedule Structure.

A Planning Schedule will consist of three levels of hierarchical structures containing:

1. Header
2. Detail
3. Summary

A Planning Schedule will contain one Header level. There will be one Detail level for each separate item that is included in the plan. There must be one Summary level at the end of the document.

Only the segments shown in this document at their respective hierarchical levels are used in a Planning Schedule from Metaldyne. All other segment types not shown are not used and are omitted.

Segment Descriptions.

The description of each segment is divided into two parts, as follows.

The **first part** provides a general description of the segment. The *Segment, Level, Loop, Usage, Max Usage,* and *Purpose* sections are a generic description of the segment. The *Notes* section provides information about the segment and **may contain information specific to Metaldyne's usage of the segment**. The *Example* section shows a typical example of the segment.

In the **second part** each of the elements in each segment is examined in detail. *Review these sections carefully because element sizes may be smaller than expected* or elements are not used at Metaldyne.

The *Elem ID, Elem #* and *Element Name* elements sections are simply the standard element descriptors from the AIAG manual for 830s.

The *Attributes* section describes whether the element is **M**andatory or **O**ptional, the type of element, and the minimum and maximum element length. Note that the maximum length of some elements will follow AIAG specifications length allowed in the Planning Schedule. However, Metaldyne may only use part of the element length allowed by the AIAG specifications. The maximum length used by Metaldyne is shown as the maximum length.

The *MD Use* section indicates whether Metaldyne uses this element.

The *Comments* section provides important information as to how each element is to be interpreted. If additional information about this element is required it will appear following the second part.

After all of the segments have been described, an example of a complete Planning Schedule will be provided.

Header Level.

The Header level specifies information which pertains to the entire planning schedule. The segments at this level follow the standard EDI interpretation for a planning schedule with release capability.

The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
ST	**Transaction Set Header**	**Yes**
BFR	**Beginning Segment for Forecast/Material Release**	**Yes**
NTE	**Note/Special Instruction**	**Yes - Optional**
CUR	Currency	No
REF	Reference Numbers	No
PER	Administrative Communication Contact	No
TAX	Tax Reference	No
FOB	F.O.B. Related Instructions	No
N1	**Name**	**Yes**
N2	Additional Name Information	No
N3	**Address Information**	**Yes – Optional**
N4	**Geographic Location**	**Yes – Optional**
REF	Reference Numbers	No
PER	**Administrative Communications Contact**	**Yes – Optional**
FOB	F.O.B. Related Instructions	No
CTP	Pricing Information	No
SSS	Special Services	No
CSH	Header Sale Condition	No
ITD	Terms of Sale/Deferred Terms of Sale	No
DTM	Date/Time Reference	No
PID	Product/Item Description	No
MEA	Measurements	No
PWK	Paperwork	No
PKG	Marking, Packaging, Loading	No
TD1	Carrier Details (Quantity and Weight)	No
TD5	Carrier Details (Routing Sequence/Transit Time)	No
TD3	Carrier Details (Equipment)	No
TD4	Carrier Details (Special Handling)	No
MAN	Marks and Numbers	No
LM	Code Source Information	No
LQ	Industry Code	No

Segment: **ST** - Transaction Set Header..

Level: Header

Loop: -

Usage: Mandatory

Max Use: **1**

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

Notes: The transaction set control number (ST02) in this header will match the transaction set control number (SE02) in the transaction set trailer (SE).

Examples: ST*830*1

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
ST01	143	Transaction Set Identifier Code	M ID 3/3	Yes	Use 830 = Planning Schedule
ST02	329	Transaction Set Control Number	M AN 4/9	Yes	A unique control number assigned to each transaction set within a functional group, starting with 0001 and incrementing by 1 for each subsequent transaction set. Same for SE02 segment.

Segment: **BFR** - Beginning segment for Forecast/Material Release.

Level: Header

Loop: -

Usage: Mandatory

Max Use: **1**

Purpose: To indicate the beginning of a planning schedule transaction set and related forecast dates.

Notes: Element BFR04 indicates whether the planning schedule is shipment or delivery based.

Examples: BFR*05**266716 06021601*DL*A* 060220*070226*060216

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
BFR01	353	Transaction Set Purpose Code	M ID 2/2	Yes	"05" = Replace.
BFR02	127	Reference Number	O AN 1/30	No	
BFR03	328	Release Number	M AN 1/30	Yes	
BFR04	675	Schedule Type Qualifier	M ID 2/2	Yes	"DL" = Delivery based
BFR05	676	Schedule Quantity Qualifier	M ID 1/1	Yes	"A" = Discrete Quantities
BFR06	373	Forecast Horizon Start	M DT 6/6	Yes	Horizon start date: the date when the forecast horizon begins in YYMMDD format.
BFR07	373	Forecast Horizon End	M DT 6/6	Yes	Horizon end date: the date when the forecast horizon ends in YYMMDD format.
BFR08	373	Forecast Generation Date	M DT 6/6	Yes	The forecast issue date in YYMMDD format.

Segment: **NTE** – Notes and Special Instructions.

Level: Header

Loop: -

Usage: Floating

Max Use: 100

Purpose: To transmit information in a free-form format, if necessary, for comment or special instruction.

Notes:

Examples: NTE*GEN*Part is consigned from Metaldyne - Ridgeway for machining?

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
NTE01	363	Reference Code	M ID 3/3	Yes	Will send "GEN" in the Header area, "LIN" in the Detail area.
NTE02	003	Free Form Message	M AN 1/60	Yes	

Segment: **N1** - Name

Level: Header

Loop: N1

Usage: Mandatory

Max Use: **4**

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

Notes: Metaldyne uses three N1 segments at the Header level. Your Metaldyne assigned Supplier/Vendor Number will be sent in the "N1*SU" segment. Your Duns Number will be sent in the "N1*SF" segment. Metaldyne's Duns Number will be sent in the "N1*ST" segment.

Examples: N1*ST*Metaldyne, Inc*01*119269827
N1*SU*Best Supplier*ZZ*00123456
N1*SF*Best Supplier*01*123456789

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
N101	98	Entity Identifier Code	M ID 2/2	Yes	"SF" = Ship-from "ST" = Ship-to "SU" = Supplier
N102	93	Name	O AN 1/35	Yes	
N103	66	Identifier Code Qualifier	M ID 1/2	Yes	Metaldyne use: "01" = Duns Number "92" or "ZZ" = Metaldyne Assigned Code.
N104	67	Identification Code	M ID 2/18	Yes	

Segment: **N3** - Address Information

Level: Header

Loop: N1

Usage: Optional

Max Use: **4**

Purpose: To specify the location of the named party.

Notes:

Examples: N3*P.O. Box 615

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
N301	166	Address information	M AN 1/35	Yes	
N302	166	Address information	O AN 1/35	Yes	

Segment: **N4** - Geographic Location

Level: Header

Loop: N1

Usage: Optional

Max Use: **4**

Purpose: To specify the location of the named party.

Notes:

Examples: N4*Fremont*IN*46737-061

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
N401	019	City Name	M AN 2/19	Yes	
N402	156	State	M ID 2/2	Yes	
N403	116	Zip Code	M ID 5/9	Yes	

Segment: **PER** - Administrative Communications contact

Level: Header

Loop: N1

Usage: Optional

Max Use: **1**

Purpose: To identify a person or office to whom administrative communications should be directed.

Notes:

Examples: PER*SC*Lambert, Glenn

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
PER01	366	Contact Function Code	M AN 2/2	Yes	
PER02	093	Name	M AN 1/35	Yes	

Detail Level.

The **Detail** level specifies those segments which pertain to the items in the planning schedule. The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
LIN	**Item Identification Detail**	**Yes**
UIT	**Unit Detail**	**Yes**
CUR	Currency	No
SLN	Subline Detail	No
PID	Product/Item Description	No
PO3	Additional Line Detail	No
CTP	Pricing Information	No
PID	Product/Item Description	No
MEA	Measurements	No
PWK	Paperwork	No
PKG	Marking, Packaging, Loading	No
PO4	Item Physical Details	No
PRS	Part Release Status	No
REF	Reference Numbers	No
PER	Administrative Communications Contact	No
SSS	Special Services	No
ITA	Allowance, Charge or Service	No
ITD	Terms of Sale/Deferred Terms of Sale	No
TAX	Tax Reference	No
FOB	F.O.B. Related Instructions	No
N1	Name	No
N2	Additional Name Information	No
N3	Address Information	No
N4	Geographic Information	No
REF	Reference Numbers	No
PER	Contacts	No
FOB	F.O.B. Related Instructions	No
FST	Forecast Schedule	No
SDP	**Ship/Delivery Pattern**	**Yes**
FST	**Forecast Schedule**	**Yes**
SDQ	Destination Quantity	No
ATH	**Resource Authorizations**	**Yes**
SHP	**Shipping Information**	**Yes**
REF	**Reference Numbers**	**Yes**
TD1	Carrier Details (Quantity and Weight)	No
TD5	Carrier Details (Routing Sequence/Transit Time)	No
TD3	Carrier Details (Equipment)	No
TD4	Carrier Details (Special Handling)	No
MAN	Marks and Numbers	No
CTT	**Transaction Total**	**Yes**
SE	**Transaction Set Trailer**	**Yes**

Segment: **LIN** - Item Identification Detail

Level: Detail

Loop: LIN

Usage: Mandatory

Max Use: **1**

Purpose: To specify basic item identification data.

Notes:

Examples: LIN**BP*SPN012402*PD*Casting Water Pump*PO*458

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
LIN01	350	Assigned Identification	O AN 1/6	No	
LIN02	235	Product ID Qualifier	M ID 2/2	Yes	"BP" = Buyer's Part Number
LIN03	234	Product ID	M AN 1/18	Yes	Metaldyne Part Number. **NOTE**: A Metaldyne Part Number will not exceed 18 characters.
LIN04	235	Product ID Qualifier	M ID 2/2	Yes	"PD" = Part Description
LIN05	234	Product ID	M AN 1/30	Yes	Part Description
LIN06	235	Product ID Qualifier	O ID 2/2	Yes	"PO" = Purchase Order Number
LIN07	234	Product ID	M AN 1/8	Yes	Purchase Order Number **NOTE:** A Metaldyne PO Number will not exceed 8 characters.

Segment: **UIT** - Unit Detail

Level: Detail

Loop: LIN

Usage: Mandatory

Max Use: **1**

Purpose: To specify item unit data.

Notes:

Examples: UIT*01

Elem ID	Elem #	Element Name	Attribute	MD Use	Comments
UIT01	355	Unit or Basis for Measurement Code	M ID 2/2	Yes	"EA" = Each

Segment: **SDP** - Ship/Delivery Pattern

Level: Detail

Loop: LIN/SDP

Usage: Mandatory

Max Use: **1**

Purpose: To identify specific ship/delivery requirements.

Notes:

Examples: SDP*A*A

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
SDP01	678	Ship/Delivery Pattern Code	M ID 1/1	Yes	"A" = Monday - Friday
SDP02	679	Ship/Delivery Pattern Time Code	M ID 1/1	Yes	"A" = 1st Shift

Segment: **FST** - Forecast Schedule

Level: Detail

Loop: LIN/SDP

Usage: Mandatory

Max Use: **260**

Purpose: To specify the forecasted dates and quantities.

Notes:

Examples: FST*500*C*D*060213
FST*300*D*D*060220

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
FST01	380	Quantity	M R 1/8	Yes	Discrete requirement quantity. May be zero.
FST02	680	Forecast Qualifier	M ID 1/1	Yes	"A" = Past due – Ship immediate "C" = Firm "D" = Planning
FST03	681	Forecast Timing Qualifier	M ID 1/1	Yes	"D" = Discrete "W" = Weekly "M" = Monthly
FST04	373	Date	M DT 6/6	Yes	Due Date (YYMMDD)

Segment: **ATH** - Resource Authorization

Level: Detail

Loop: LIN

Usage: Optional

Max Use: **3**

Purpose: To specify resource authorizations (i.e., finished labor, material, etc.) in the planning schedule.

Notes:

Examples: ATH*FI*060213*392221**060101
ATH*MT*060212*300000**060101

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
ATH01	672	Resource Authorization Code	M ID 2/2	Yes	"FI" = FAB Authorization "MT" = Material Authorization.
ATH02	373	Date	C DT 6/6	Yes	
ATH03	380	Quantity	M R 1/15	Yes	.
ATH04	380	Quantity	O R 1/15	No	
ATH05	373	Date	M DT 6/6	Yes	

Segment: **SHP** - Shipped/Receive Information

Level: Detail

Loop: LIN/SHP

Usage: Mandatory

Max Use: **1**

Purpose: To specify shipment and/or receipt information.

Notes:

Examples: SHP*01*10125*050*060208
SHP*02*383400*051*060101**060213

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
SHP01	673	Quantity Qualifier	M ID 2/2	Yes	"01" = Discrete Quantity. "02" = Cumulative Quantity.
SHP02	380	Quantity	M R 1/15	Yes	SHP01 = "01"; Last shipment quantity received. SHP01 = "02"; Year-To-Date received quantity.
SHP03	374	Date/Time Qualifier	M ID 3/3	Yes	"050" = Shipment received date. "051" = Cumulative Quantity Start Date.
SHP04	373	Date	M DT 6/6	Yes	SHP01 = "01"; Last Ship Date. SHP01 = "02"; Beginning Inventory Date for this ship-to destination.
SHP05	337	Time	O TM 4/8	No	
SHP06	373	Date	C DT 6/6	Yes	SHP01 = "02"; Cumulative Quantity End Date

Segment: **REF** - Reference Numbers

Level: Detail

Loop: LIN/SHP

Usage: Mandatory

Max Use: **1**

Purpose: To specify the Shipment ID Number of the last shipment received.

Notes:

Examples: REF*SI*0062892

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
REF01	128	Reference Number Qualifier	M ID 2/2	Yes	"SI" = Shipper's identifying number.
REF02	127	Reference Number	M AN 1/30	Yes	

Summary level.

The **Summary** hierarchical level specifies those segments, shown as **bold**, which pertain to the complete forecast. The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
CTT	**Transaction Totals**	**Yes**
SE	**Transaction Set Trailer**	**Yes**

Segment: **CTT** - Transaction Totals

Level: Summary

Loop:

Usage: Mandatory

Max Use: **1**

Purpose: To transmit a hash total for a specific element in the transaction set.

Notes: Used to provide the hash totals for "LIN" segments and for the total quantities appearing in element "FST01" within this transaction set.

Examples: CTT*4*1234567

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
CTT01	354	Number of Line Items	M NO 1/6	Yes	Total number of LIN segments
CTT02	347	Hash Total	M R 1/10	Yes	The hash total of all quantities released (FST01).

Segment: **SE** - Transaction Set Trailer

Level: Summary

Loop:

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).

Notes: The transaction set control number value in this trailer must match the same element value in the transaction set header (ST02).

Examples: SE*52*0001

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
SE01	96	Number of Included Segments	M NO 1/10	Yes	
SE02	329	Transaction Set Control Number	M AN 4/9	Yes	Same as ST02.

Metaldyne (830) Example.

```
ST*830*820001
BFR*05**266650 06021601*DL*A*060220*070226*060216
N1*ST*Metaldyne - New Castle*01*006068506
N4*New Castle*IN*47362
PER*SC*NC- East Building
N1*SU*Best Supplier*ZZ*00123456
N1*SF*Best Supplier*01*123456789
N4*Plymouth*MI*48170
LIN**BP*01234567AD*PD*LX SRT8 Silver Caliper*PO*1557
UIT*EA
SDP*A*A
FST*1320*A*D*060219
FST*420*C*D*060220
FST*420*C*D*060227
FST*480*C*D*060306
FST*480*C*D*060313
FST*480*C*D*060320
FST*480*C*D*060327
FST*480*D*D*060403
FST*960*D*D*060410
FST*2160*D*D*060424
FST*720*D*D*060529
FST*600*D*D*060626
FST*0*D*D*060731
FST*0*D*D*060828
FST*0*D*D*060925
FST*1200*D*D*061030
FST*1200*D*D*061127
FST*1200*D*D*061226
FST*1200*D*D*070129
FST*1200*D*D*070226
ATH*FI*060216*5781**060101
SHP*01*300*050*060216
REF*SI*0062892
SHP*02*4461*051*060101**060216
LIN**BP*SPN016580*PD*HUB*PO*1557
UIT*EA
SDP*A*A
FST*320*C*D*060219
FST*920*C*D*060220
FST*920*C*D*060227
FST*980*C*D*060306
FST*980*C*D*060313
FST*980*C*D*060320
FST*980*C*D*060327
FST*980*D*D*060403
FST*960*D*D*060410
FST*2160*D*D*060424
FST*720*D*D*060529
FST*600*D*D*060626
FST*1200*D*D*060731
FST*1200*D*D*060828
FST*1200*D*D*060925
FST*1200*D*D*061030
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FST*1200*D*D*061127
FST*1200*D*D*061226
FST*1200*D*D*070129
FST*1200*D*D*070226
ATH*FI*060216*5781**060101
SHP*01*300*050*060216
REF*SI*0062891
SHP*02*5461*051*060101**060216
CTT*1*18600
SE*63*820001
```