Message Implementation Guideline

Syntax & Service Report

CONTRL

(Based on EANCOM 2002 Guideline using UN / EDIFACT Directory D.01B)

Version 1.0

3 March 2019

SPS COMMERCE

INFINITE RETAIL POWER™

Document Change Control

Document Version	Released	By SPS Commerce	Changes
V1.0	3 March 2019	Mimoza Piruze	Created Document

Purpose of this Implementation Guide

The purpose of this guide is to provide suppliers with the necessary information to enable the implementation of Syntax and Service Report (CONTRL) messages with Drakes Supermarkets (Drakes).

Who should use this Guide

This guide is intended for use by Drakes Supermarkets suppliers to prepare for the implementation of Electronic Data Interchange (EDI) and to assist with applications integration, thereby ensuring successful electronic trading.

EDIFACT Specifications

1 UN/EDIFACT Specifications

1.1 Definition of UN/EDIFACT

UN/EDIFACT: United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport. They comprise a set of internationally agreed standards, directories and guidelines for the electronic interchange of structured data, and in particular that related to trade in goods and services, between independent computerized information systems - EDI systems.

1.2 UN/EDIFACT Syntax

The UN/EDIFACT syntax rules set the standards for structuring data into segments, segments into messages, and messages into an interchange.

1.2.1 Structure of an Interchange

An interchange may consist of the following segments:

Segment ID	Segment Name	Status
UNA	Service String Advice	Conditional
UNB	Interchange Header	Mandatory
UNG	Functional Group Header	Conditional
UNH	Message Header	Mandatory
	User Data Segments	
UNT	Message Trailer	Mandatory
UNE	Functional Group Trailer	Conditional
UNZ	Interchange Trailer	Mandatory

Segments starting with "UN" are called service segments. They constitute the envelope or the "packing" of the EDIFACT messages. User data segments contain the information itself, in a format specific to each message type.

1.2.2 Structure of a Message

Each data segment has a specific place within the sequence of segments in the message. They may occur in any of the following three sections of the message:

- **Heading section** - A segment occurring in this section relates to the entire message.
- **Detail section** - A segment occurring in this section relates to the detail information only.
- **Summary section** - Only segments containing totals or control information may occur in the summary section, e.g. invoice total amount, number of lines in a purchase order, etc.

The same segment type may occur in more than one of the message sections, e.g. in the header and in the detail section, and/or more than once in the same section.

Some segments may be repeated a certain number of times at their specific location in the message. The status, Mandatory or Conditional, and the maximum number of repetitions of segment types are indicated in the message structure.

Within a message, specific groups of functionally related segments may be repeated; these groups are referred to as "segment groups". The maximum number of repetitions of a particular segment group at a specific location is included in the message definition.

A segment group may be nested within other segment groups, provided that the inner segment group terminates before any outer segment group terminates.

1.2.3 Segment Structure

A segment consists of:

- A segment tag: identifies the segment type
- Data element separators
- Simple, composite, or component data elements
- A segment terminator

Data elements can be defined as having a fixed or variable length.

A composite data element contains two or more component data elements.

A component data element is a simple data element used in a composite data element.

A data element can be qualified by another data element, the value of which is expressed as a code that gives specific meaning to the data. The data value of a qualifier is a code taken from an agreed set of code values.

1.2.4 Separators

In EANCOM four service characters (extracted from UNOA) have a special meaning and act as the default separators for EANCOM;

	ASCII	HEX	
Apostrophe	‘	27	Segment terminator
Decimal Point	.	2E	Decimal Point
Plus sign	+	2B	Segment tag and data element separator
Colon	:	3A	Component data element separator
Question mark	?	3F	Release character; immediately preceding one of the service characters, it restores their normal meaning. E.g. 10?+10=20 means 10+10=20. Question mark is represented by ??

1.3 UN/EDIFACT Documentation Conventions

1.3.1 Format and Picture of Data Elements

The following conventions apply in the present documentation:

A	alphabetic characters
N	numeric characters
An	alpha-numeric characters
a3	3 alphabetic characters, fixed length
n3	3 numeric characters, fixed length
an3	3 alpha-numeric characters, fixed length
a..3	up to 3 alphabetic characters
n..3	up to 3 numeric characters
an..3	up to 3 alpha-numeric characters

The format and picture of the data elements that will be used by Drakes Supermarkets in the following EDI documents comply with the UN/EDIFACT Standards.

1.3.2 Status indicators

There are five types of status used in the following pages, whether for simple, component or composite data elements. They are listed below and can be identified when relevant by the abbreviations.

M	Specified within the Standards as Mandatory, used as a trigger element.
Must Use	Required by Drakes Supermarkets for specific implementation or business rules
D	Dependent on a mutual agreement between the sender and receiver of the message, governed by Business rules and / or a special arrangement, i.e. Primary Freight, etc.
O	Data that can be omitted based on an agreement between the sender and receiver.
Not Used	Segment/data elements defined as optional by standard specification and are not required for this Implementation. Data elements or composite elements not used preceding those indicated otherwise are shown for additional clarity. Unused trailing elements will not be shown in this document.

1.3.3 Interchange Structure

The interchange structure in an EDIFACT transmission is organized in several grouping levels. The service segments are the envelope of the groups.

The first service segment possible in an interchange is the 'UNA' segment which is used to define the separators being used in the interchange. The second service segment, 'UNB', indicates the beginning of the interchange. The next one, 'UNG', indicates the beginning of a group of messages of the same type, for example invoices. The last service segment, 'UNH', indicates the beginning of a given message. To each beginning service segment corresponds an ending service segment (note, UNA is not a beginning segment).

Service string advice:	UNA
Interchange envelope:	UNB .... UNZ
Group envelope:	UNG .... UNE
Message envelope:	UNH .... UNT

Segment UNA is dependent on the character set being used. Drakes Supermarkets interchanges will include the UNA segment, as the UN/EDIFACT character set (C) will be used.

Segments UNG..UNE are Conditional/Optional. These segments will not be sent as standard in this MIG.

1.3.4 Interchange Control Structure (Envelope)

Introduction:

The Service String Advice, UNA, and the service segments UNB to UNZ shall appear in the below stated order in an interchange. There may be several functional groups or messages within an interchange and several messages in a functional group. A message consists of segments.

Pos. No.	Seg. ID	Name	Base Status	User Status	Group Max.Use	Notes and Repeat Comments
0000	UNA	Service String Advice	O	O	1	
0010	UNB	Interchange Header	M	M	1	
0020	UNH	Message Header	M	M	1	
0030	UNT	Message Trailer	M	M	1	
0040	UNZ	Interchange Trailer	M	M	1	

CONTRL Syntax and Control Message

Introduction:

A Syntax and Service Report (CONTRL) message is a message syntactically acknowledging a received interchange.

Notes:

This section describes how the CONTRL (Syntax and Service Report) message is to be used in trading electronically with [Retailer].

An automated Syntax and Control Message (CONTRL) at interchange level is expected for all B2B documents exchanged between Drakes and suppliers.

Only acknowledgment of receipt of an interchange for all messages is required. Any errors found in any message must be communicated promptly with personnel responsible for the transaction.

The following message flow illustrates the relevance of the CONTRL message to the messages exchanged between Drakes and suppliers.

1) Drakes to Supplier: ORDERS (Purchase Order)
2) Supplier to Drakes: CONTRL

3) Supplier to Drakes: ORDRSP (Purchase Order Acknowledgment)
4) Drakes to Supplier: CONTRL

5) Supplier to Drakes: DESADV (Despatch Advice Message)
6) Drakes to Supplier: CONTRL

7) Supplier to Drakes: INVOIC (Invoice Message)
8) Drakes to Supplier: CONTRL

All messages will be exchanged via the following interchange (mailbox) addresses for [Retailer]:

Production EDI Identifier: **9377779424865**
Testing & Certification EDI Identifier: **TST1DRAKES**

Example: Control message from Drakes Supermarkets to supplier:

The example below illustrates an acknowledgement to be returned to the vendor from Drakes' production EDI identifier, indicating that Drakes has received interchange 72. The acknowledgment does not imply that the message is accepted without errors, just an indicator of the interchange received.

```
UNA:+.? '
UNB+UNOC:3+9377779424865:14+SUPPLIER_GLN:14+190303:1030+99101'
UNH+0001+CONTRL:D:3:UN:EAN004'
UCI+72+SUPPLIER_GLN:14+9377779424865:14+8'
UNT+3+0001'
UNZ+1+99101'
```

Heading Section:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Group Repeat	Notes and Comments
M		UNA	Service String Advice	M	1		
M	0005	UNB	Interchange Header	M	1		
M	0010	UNH	Message Header	M	1		

Detail Section:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Group Repeat	Notes and Comments
M	002	UCI	Interchange Response	M	1		

Summary Section:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Group Repeat	Notes and Comments
M	2400	UNT	Message Trailer	M	1		
M	2420	UNZ	Interchange Trailer	M	1		

Segment: **UNA** **Service String Advice**
Position:
Group:
Level: 0
Usage: Mandatory
Max Use: 1
Purpose: To define the characters selected for use as delimiters and indicators in the rest of the interchange that follows. The specifications in the Service string advice take precedence over the specifications for delimiter etc. in UNB segment. When transmitted, the Service string advice must appear immediately before the Interchange Header (UNB) segment and begin with the upper case characters UNA immediately followed by the six characters selected by the sender to indicate, in the following sequence: *UNA:+.? '*

Notes: Example:

UNA:+.? '

Data Element Summary

Attributes	Data Element	Component Element	Name		
M	**0010**		**COMPONENT DATA ELEMENT SEPARATOR** Composite element delimiter **:** Colon	**M**	**an..1**
M	**0020**		**DATA ELEMENT SEPARATOR** Data element delimiter **+** Plus sign	**M**	**an..1**
M	**0030**		**DECIMAL NOTATION** The character transferred in this position shall be ignored by the recipient. Retained to maintain upward compatibility with earlier versions of the syntax. **.** Full stop / Period	**M**	**an..1**
M	**0040**		**RELEASE INDICATOR** Release indicator is used to signify that the following texts contain one of the characters used as composite, data or segment delimiter, hence release its usage convention for that instance. **?** Question mark	**M**	**an..1**
M	**0050**		**RESERVED FOR FUTURE USE** Not used. White space (blank)	**M**	**an..1**
M	**0060**		**SEGMENT TERMINATOR** Used to delimit the end of the current segment and start a new segment. **'** Apostrophe	**M**	**an..1**

Segment: **UNB** **Interchange Header**
Position: 0005
Group:
Level: 0
Usage: Mandatory
Max Use: 1
Purpose: To start, identify and specify an interchange
Dependency Notes:
Semantic Notes:
Comments:
Notes: All messages implemented based on EANCOM 2002 will use syntax level C, version 3 as indicated in DE S001.0001 and DE S001.0002 as UNOC:3.

Dependency notes:

Note that the following elements will not be included in the UNB segment for the CONTRL message:

1) DE0031: Acknowledgement request

Example:

UNB+UNOC:3+9377779424865:14+VENDOR_GLN:14+190303:1030+1001'
UNB+UNOC:3+TST1DRAKES:ZZZ+VENDOR_GLN:14+190303:1030+81'

Data Element Summary

Attributes	Data Element	Component Element	Name		
M	**S001**		**SYNTAX IDENTIFIER**	**M**	**1**
			Identification of the agency controlling the syntax and indication of syntax level.		
M		**0001**	**Syntax identifier**	**M**	**a4**
			Coded identification of the agency controlling a syntax and syntax level used in an interchange.		
			UNOC UN/ECE level C		
			As defined in ISO/IEC 8859-1 : Information technology - Part 1: Latin alphabet No. 1.		
M		**0002**	**Syntax version number**	**M**	**n1**
			Version number of the syntax identified in the syntax identifier (0001).		
			3 Version 3		
			ISO 9735 Amendment 1:1992.		
M	**S002**		**INTERCHANGE SENDER**	**M**	**1**
			Identification of the sender of the interchange.		
M		**0004**	**Sender identification**	**M**	**an..35**
			Name or coded representation of the sender of a data interchange.		
			The identifier / GLN of the sending party: Drakes if CONTRL related to ORDRSP, DESADV or INVOIC Supplier if CONTRL related to ORDERS Drakes Supermarkets will use the following addresses: Production EDI Identifier **9377779424865** Testing & Certification EDI Identifier **TST1DRAKES**		
M		**0007**	**Partner identification code qualifier**	**C**	**an..4**
			Qualifier referring to the source of codes for the identifiers of interchanging partners.		
			14 EAN (European Article Numbering Association)		
			Partner identification code assigned by EAN Drakes code qualifier used for Production		

			ZZZ	Mutually defined		
				Drakes code qualifier used for Testing & Certification		
Not Used		**0008**	**Address for reverse routing**		**C**	**an..14**
			Address specified by the sender of an interchange to be included by the recipient in the response interchanges to facilitate internal routing.			
M	**S003**		**INTERCHANGE RECIPIENT**		**M**	**1**
			Identification of the recipient of the interchange.			
M		**0010**	**Recipient identification**		**M**	**an..35**
			Name or coded representation of the recipient of a data interchange.			
			The identifier / GLN of the receiving party: Drakes if CONTRL related to ORDERS Supplier if CONTRL related to ORDRSP, DESADV or INVOIC			
M		**0007**	**Partner identification code qualifier**		**C**	**an..4**
			Qualifier referring to the source of codes for the identifiers of interchanging partners.			
			14	EAN (European Article Numbering Association)		
				Partner identification code assigned by EAN		
			ZZZ	Mutually defined		
				Mutually defined between trading partners.		
Not Used		**0014**	**Routing address**		**C**	**an..14**
			Address specified by the recipient of an interchange to be included by the sender and used by the recipient for routing of received interchanges inside his organization.			
M	**S004**		**DATE AND TIME OF PREPARATION**		**M**	**1**
			Date and time of preparation of the interchange.			
M		**0017**	**Date of preparation**		**M**	**n6**
			Local date when an interchange or a functional group was prepared.			
			Date in YYMMDD format, i.e. March 3rd 2019 is presented as 190303			
M		**0019**	**Time of preparation**		**M**	**n4**
			Local time of day when an interchange or a functional group was prepared.			
			Time in 24 hour-clock format, i.e. 3:30 PM is presented as 1530			
M	**0020**		**INTERCHANGE CONTROL REFERENCE**		**M**	**1 an..14**
			Unique reference assigned by the sender to an interchange.			
			This data element is specified as alphanumeric and, for all Drakes implementations, only numbers are accepted as interchange control.			
Not Used	**S005**		**RECIPIENTS REFERENCE PASSWORD**		**C**	**1**
			Reference or password as agreed between the communicating partners.			
Not Used	**0026**		**APPLICATION REFERENCE**		**C**	**1 an..14**
			Identification of the application area assigned by the sender, to which the messages in the interchange relate e.g. the message identifier if all the messages in the interchange are of the same type.			
Not Used	**0029**		**PROCESSING PRIORITY CODE**		**C**	**1 a1**
			Code determined by the sender requesting processing priority for the interchange.			
Not Used	**0031**		**ACKNOWLEDGEMENT REQUEST**		**C**	**1 n1**
			Code determined by the sender for acknowledgement of the interchange.			
Not Used	**0032**		**COMMUNICATIONS AGREEMENT ID**		**C**	**1 an..35**
			Identification by name or code of the type of agreement under which the interchange takes place.			
Not Used	**0035**		**TEST INDICATOR**		**C**	**1 n1**
			Indication that the interchange is a test.			

Segment: **UNH** **Message Header**
Position: 0010
Group:
Level: 0
Usage: Mandatory
Max Use: 1
Purpose: A service segment starting and uniquely identifying a message. The message type code for the Purchase order message is ORDERS.
Dependency Notes:
Semantic Notes:
Comments:
Notes: Example:

UNH+001+CONTRL:D:3:UN:EAN004'

Data Element Summary

Attributes	Data Element	Component Element	Name			
M	**0062**		**MESSAGE REFERENCE NUMBER** Unique message reference assigned by the sender. Sequence number of the message in the interchange. DE 0062 in the UNH segment will be exactly the same as in the UNT segment.	**M**	**1**	**an..14**
M	**S009**		**MESSAGE IDENTIFIER** Identification of the type, version etc. of the message being interchanged.	**M**	**1**	
M		**0065**	**Message type identifier** Code identifying a type of message and assigned by its controlling agency. CONTRL Control message	**M**		**an..6**
M		**0052**	**Message type version number** Version number of a message type. D Draft version/UN/EDIFACT Directory	**M**		**an..3**
M		**0054**	**Message type release number** Release number within the current message type version number (0052). 3 Syntax version 3 adopted from the Joint Syntax Working Group	**M**		**an..3**
M		**0051**	**Controlling agency** Code identifying the agency controlling the specification, maintenance and publication of the message type. UN UN/CEFACT United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).	**M**		**an..2**
Must Use		**0057**	**Association assigned code** Code, assigned by the association responsible for the design and maintenance of the message type concerned, which further identifies the message. EAN004 EAN Version Control Number	**C**		**an..6**
Not Used	**0068**		**COMMON ACCESS REFERENCE** Reference serving as a key to relate all subsequent transfers of data to the same business case or file.	**C**	**1**	**an..35**
Not Used	**S010**		**STATUS OF THE TRANSFER** Statement that the message is one in a sequence of transfers relating to the same topic.	**C**	**1**	

Segment: **UCI** **Interchange Response**
Position: 002
Group:
Level: 0
Usage: Mandatory
Max Use: 1
Purpose: To identify the subject interchange, to indicate acknowledgement or rejection (action taken) of the UNA, UNB and UNZ segments and to identify any error related to these segments. Depending on the action code it may also indicate the action taken on the functional groups and messages within that interchange.
Dependency Notes:
Semantic Notes:
Comments:
Notes: This segment is used to identify the interchange being acknowledged.
Only qualifier value 8 (interchange received) is used for DE 0083 to acknowledge the receipt of the original message to the sender.

Example:

Interchange number 72 from the sender identified as SUPPLIER_GLN to the receiver identified by 9377779424865 has been received.

UCI+72+SUPPLIER_GLN:14+9377779424865:14+8'

Data Element Summary

Attributes	Data Element	Component Element	Name		
M	**0020**		**INTERCHANGE CONTROL REFERENCE** Unique reference assigned by the sender to an interchange. Name of a document.	**M**	**an..14**
M	**S002**		**INTERCHANGE SENDER** Identification of the sender of the interchange.	**M**	
M		**0004**	**Sender identification** Name or coded representation of the sender of a data interchange. Interchange address ID of the sender may be an EAN Global Location Number (GLN) or other mutually agreed address.	**C**	**an..35**
Must Use		**0007**	**Partner identification code qualifier** Qualifier referring to the source of codes for the identifiers of interchanging partners. 14 EAN (International Article Numbering Association) ZZZ Mutually defined	**C**	**an..4**
M	**S003**		**INTERCHANGE RECIPIENT** Identification of the recipient of the interchange.	**M**	
M		**0010**	**Recipient identification** Name or coded representation of the recipient of a data interchange. Interchange address ID of the receiver may be an EAN Global Location Number (GLN) or other mutually agreed address.	**M**	**an..35**
Must Use		**0007**	**Partner identification code qualifier** Qualifier referring to the source of codes for the identifiers of interchanging partners. 14 EAN (International Article Numbering Association) ZZZ Mutually defined	**C**	**an..4**
M	**0083**		**ACTION, CODED** In a CONTRL message from / to [Retailer], code 8 will be used. 8 Interchange received	**M**	**an..3**

Segment: **UNT** **Message Trailer**
Position: 2400
Group:
Level: 0
Usage: Mandatory
Max Use: 1
Purpose: A service segment ending a message, giving the total number of segments in the message (including the UNH & UNT) and the control reference number of the message.
Dependency Notes:
Semantic Notes:
Comments:
Notes: This segment is a mandatory UN/EDIFACT segment. It must always be the last segment in the message.

Example:

There are 3 segments within the UNH-UNT (0001) loop inclusively.
UNT+3+0001'

Data Element Summary

Attributes	Data Element	Component Element	Name			
M	**0074**		**NUMBER OF SEGMENTS IN A MESSAGE** Control count of number of segments in a message.	**M**	**1**	**n..6**
M	**0062**		**MESSAGE REFERENCE NUMBER** Unique message reference assigned by the sender. Sequence number of the message in the interchange. DE 0062 in the UNT segment will be exactly the same as in the UNH segment.	**M**	**1**	**an..14**

Segment: **UNZ** **Interchange Trailer**
Position: 2420
Group:
Level: 0
Usage: Mandatory
Max Use: 1
Purpose: To end and check the completeness of an interchange
Dependency Notes:
Semantic Notes:
Comments:
Notes: The UNZ segment marks the end of the interchange

Example:

UNZ+1+1001'

Data Element Summary

Attributes	Data Element	Component Element	Name			
M	**0036**		**INTERCHANGE CONTROL COUNT** Count either of the number of messages or, if used, of the number of functional groups in an interchange. Total count of UNH-UNT segment loop repeats.	**M**	**1**	**n..6**
M	**0020**		**INTERCHANGE CONTROL REFERENCE** Unique reference assigned by the sender to an interchange. The value presented here must match with the value presented in DE 0020 in segment UNB.	**M**	**1**	**an..14**