

Reference Conventions 1.2/1.0

Message

Floecom Documentation Methodology

File name	: GH15050801v1.2_Reference_technique 1.0.doc
Document reference	: GH15050811
Last modified	: 19 October 2009
Document version/release	: 1.2/1.0
Status	: Final

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Revision Page

Version	Author	Revisions
1.0	Gerhard Heemskerk	Concept version
1.1	Gerhard Heemskerk	Concept of item revised
1.2	Gerhard Heemskerk	Translation in English 5.5. Object references 6.3. Object reference types

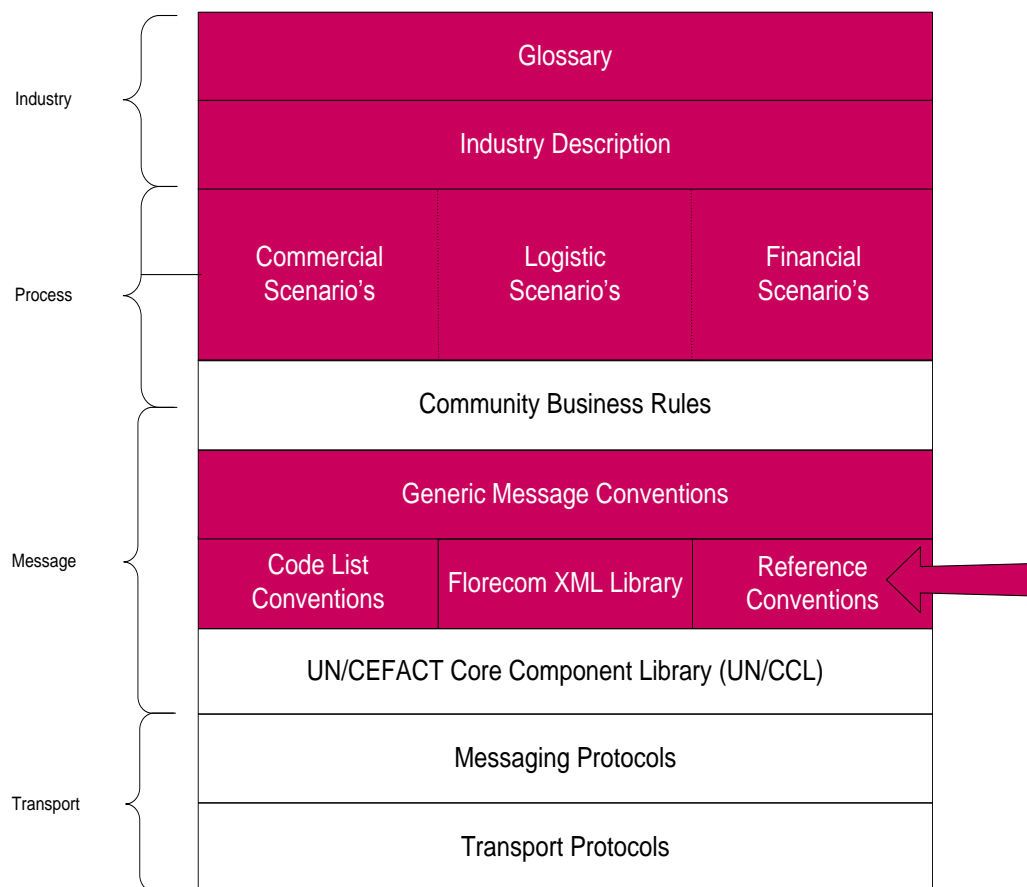
	Date	Position	Initials
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Accepted on behalf of the change management board	19-10-09	Gerhard Heemskerk (Florecom CMG Library)	GH
Released on behalf of the standardization board	19-10-09	Jan Ratterman (Florecom WG Standards)	JR

1. Floecom Documentation Methodology

This document is part of the documentation methodology of Floecom (Floecom, 2008A), a methodology that is used to describe the XML standards used in the ornamental horticulture industry. The basic underlying goals of this methodology are, to provide:

- documentation to all different types of Floecom users i.e. technical and non-technical;
- documentation from different perspectives and in different levels of detail;
- unambiguity in terms and modelling techniques;
- a clear coherence between all types of documentation;
- a clear structure for document retrieval;
- a sound basis for quality assurance and certification of software suppliers;

The Floecom documentation stack, as presented in the figure below, indicates the coherence of the published documents. The current document is marked with an arrow.



The XML standards and its corresponding documentation are not a substitute for existing EDifact-based, Floecom standards. The XML standards facilitate new business models and are tested and evaluated by value chain parties using pilot implementations.

The process descriptions in this document are used solely to describe generic collaboration processes between organizations and are not standardized by Floecom. The purpose of these process descriptions is to derive and justify the actual XML messaging standards of Floecom i.e. the XML schema's and convention manuals.

To support specific business processes in trade communities, Floecom facilitates the development, publication and implementation of community standards. These standards are implementation guidelines of Floecom standard messages based on specific business rules in a community.

2. Introduction

2.1 Aim of this document

This document describes the technique to link processes by using references. For completeness other references such as an auction clock number have been adapted in this document (so called object references). These references are not used within the technique of linking processes.

2.2 Intended audience

This document targets all parties, direct or indirect, involved at using Florecom XML standards. The documentation is applicable to different types of readers, among others, consultants, software suppliers, process experts, policy makers and managers of growers, traders, importers, exporters, carriers and market places.

2.3 Starting-point and prerequisites

This document is based on:

- HvR0285v1.7 FPB CLF 1.0 Definitief
- GH06008v1.5 Referentietechniek oplossingsrichting

The following starting-point and prerequisites have been used:

- Functional references for batches and objects
- Generic designed
- Easy to implement
- Easy towards migration
- Fits today's and future's business processes
- Functional approved and tested (by the business)
- Technical analyzed (impact analyses)

2.4 Terms and Abbreviations

CLF	Commercial, Logistical, Financial
XML	eXtensible Markup Language

3. Business domain

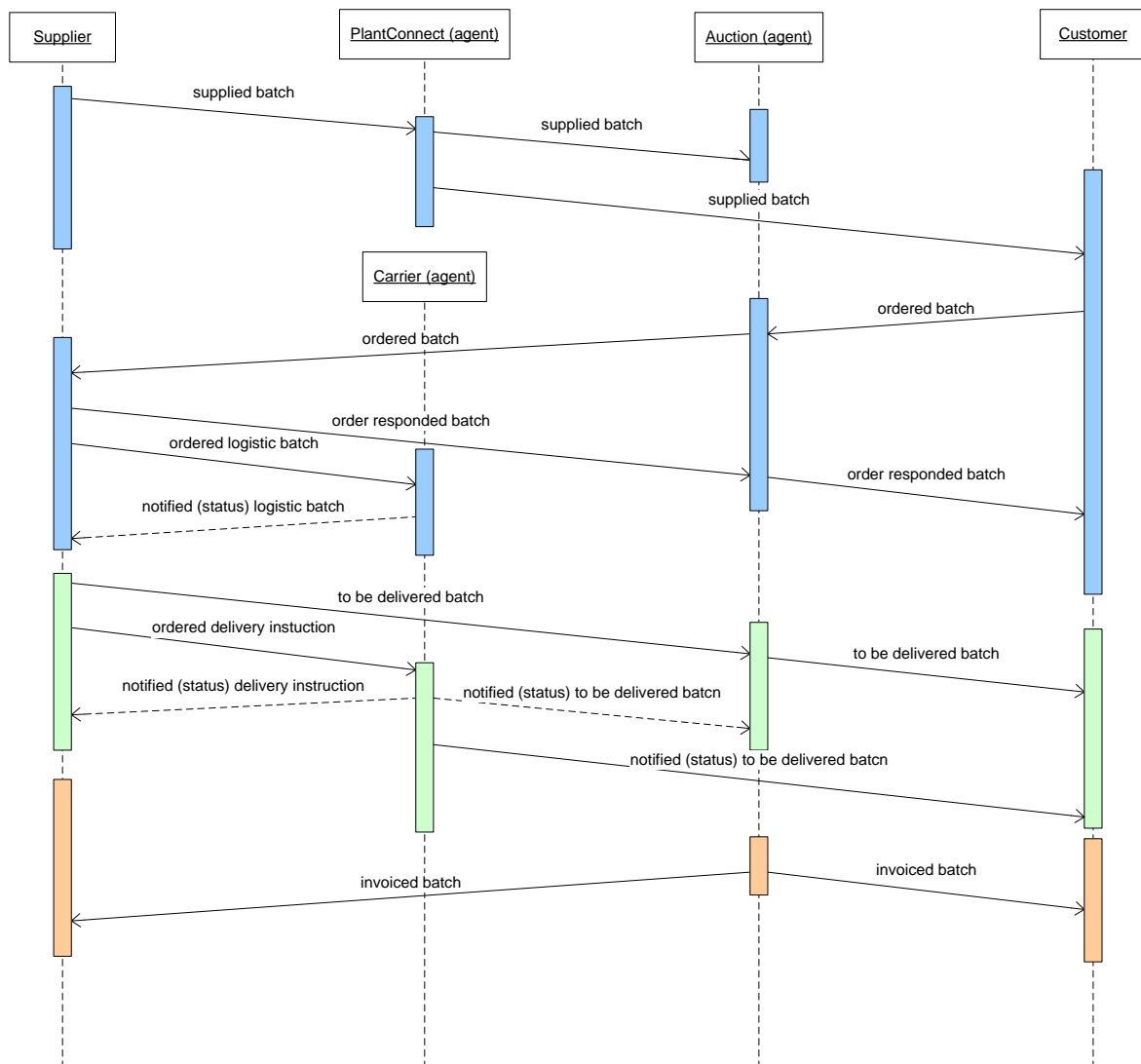
3.1 Scope

Within the functional description of CLF processes, business processes using standard information exchanges, are being linked by supplying the right information on the right moment. References are important data elements to link these processes. Every party assigns its own identification to an information flow such as an supplied batch (Dutch: aangeboden partij). Within a process stage the information flow can refer to a batch in a preceding information flow. (e.g. an ordered batch can refer to a supplied batch).

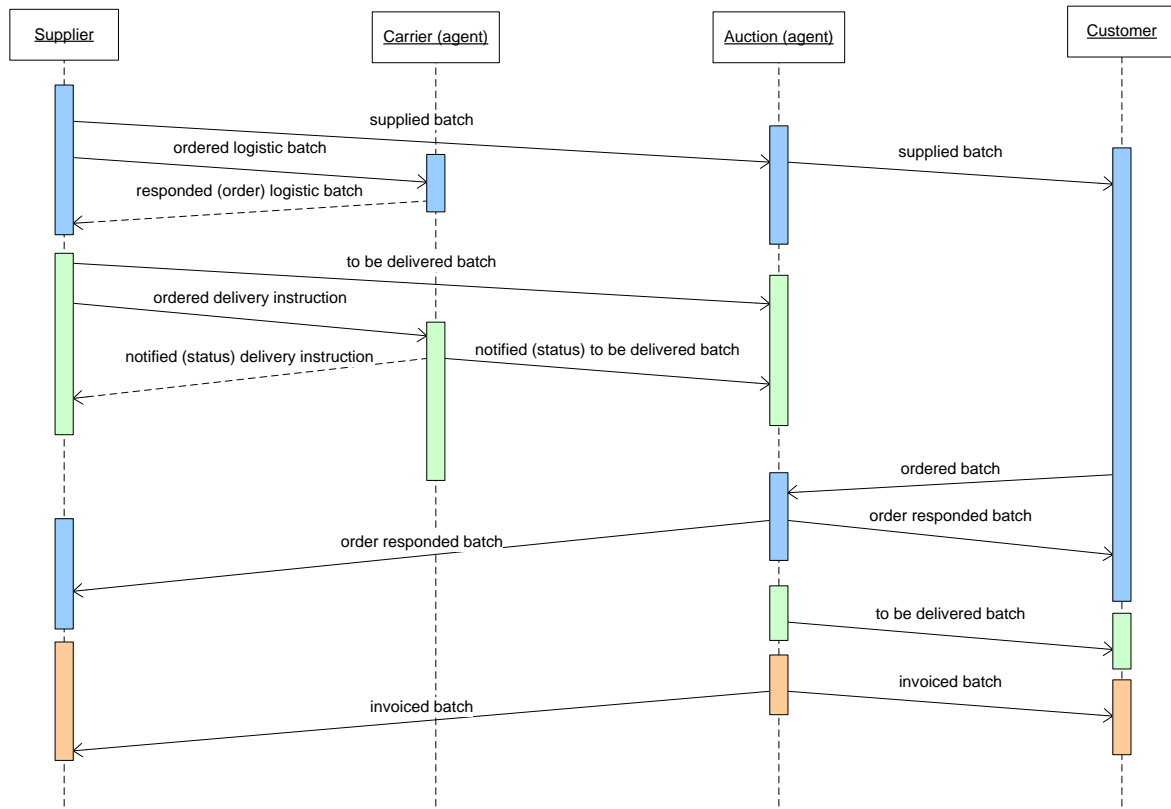
3.2 Document agreement

This document describes the way processes are to be linked. For readability the concept of 'batch' is used for goods, service, logistic means or package (in others words 'item').

3.2.1 Information-exchange for the agent (mediation) process



3.2.2 Information exchange for the auction clock process



4. Concepts

Concept	Description
Process stages	<p>Within CLF we can distinguish process stages to which an information flow can be assigned:</p> <ul style="list-style-type: none"> - Supplying - Ordering - Order Responding - Delivering - Invoicing
Information flow	Information about a supplied, ordered, order responded, delivered, notified or invoiced batch that has been exchanged by parties using messages.
Referencing method	The basic principle of 'your reference' and 'our reference' is being used for referencing. This means that the owner/issuer assigns an identification to an information flow. The recipient will also assign an identification to the same information flow. In the next process stages both references will be available in order to link to the previous process stage. Business rules determine whether references of the preceding process stage must be provided.
Document type	The document type gives the information flow a further meaning (e.g. general supply or selective supply, logistic order)
Batch (Item)	<p>Through all process stages the concept of 'batch' is being used. Instead of batch you can read goods, service, logistic means or package as well.</p> <p>A batch is a</p> <ul style="list-style-type: none"> - quantity of trade merchandise - with equal characteristics - available on a location - within a time span <p>Depending on the process stage the batch will be more and more concrete in terms of:</p> <ul style="list-style-type: none"> - quantity - price terms - delivery terms - availability - location and time etc
Party	This is a company or organization playing a business role within the process stages (e.g. supplier, customer etc.)
Reference	A (functional) reference is a reference to a batch which has been created within a particular process stage.
Reference type	A reference type gives a further meaning to an information flow on process stage level (e.g. a reference from the 'order' stage etc.)
Batch ID (Item ID)	The identification of a batch assigned by a party.
Owner ID	The owner of a company or organization to whom the batch ID is being assigned (issued).
Issuer ID	The issuer is a company or organization assigning (issuing) a batch ID. Often the issuer will be owner as well (the software application of the owner assigns a batch ID). In case of a solution provider, e.g. PlantConnect, PlantConnect is the issuer of the batch ID.

5. Procedure references

5.1 General rules

1. When a batch is being created within a process stage the identification is mandatory.
2. The batch ID (of present and directly preceding process stage) must be stored in the database in order to ensure the possibility to send them to the next process stage.
3. A process link can be established by using the reference of the batch ID from the directly preceding process stage.
4. Business rules may prescribe to include batch ID's from 1 of more process stages backwards.
5. Business rules may prescribe to include batch ID's of other parties within the same process stage (e.g. ordered batch ID auction + ordered batch ID customer).

5.2 Information flows

Every process stage has an information flow. The information flow is characterized by the reference type.

Process stage	Information flow	Reference type (on process level)
Supplying	Supplied batch	AAG
Ordering	Ordered batch	ON
Order Responding	Order Responded batch	VN
Delivering	To be delivered batch	BT
	Ordered delivery instruction	SRN
Invoicing	Invoiced batch	IV
Notifying (status)*	Notified (status) batch	AQK

* *Notifying (status): this information flow can be used within each process stage.*

5.2.1 Document type

The document type will give a further meaning to the information flow within a process level (e.g. general supply or selective supply and order or spotorder or logistic order)

Process stage	Information flow	Reference type	Document type	Meaning (within process level)
Supplying	Supplied batch	AAG	289	Product range (Dutch: assortiment)
		AAG	9	Supply (general)
		AAG	310	Supply (selective)
		AAG	35	Inventory report
Ordering	Ordered batch	ON	220	Order
		ON	222	Spotorder
		ON	640	Order (logistic)
Order Responding	Order Responded batch	VN	231	Order response
Delivering	To be delivered batch	BT	351	Delivery (note)
		SRN	350	Delivery instruction (batch)
		SRN	264	Delivery instruction (equipment)
Invoicing	Invoiced batch	IV	325	Pro forma invoice (Dutch: dagafschrift)
		IV	380	Commercial invoice
Notifying status*	Notified (status) batch	AQK	23	Status

* *Notifying (status): this information flow can be used within each process stage.*

5.2.2 Process link

Every process stage has a mandatory batch ID. The business rules may prescribe the presence of a reference (batch ID from a preceding process stage). The presence of references is therefore mandatory (M) or conditional (C) within a information flow.

Process stage	Information flow	M=Mandatory C=Condition	Reference type	Link to process stage
Supplying	Supplied batch	M	AAG	AAG
Ordering	Ordered batch	M	ON	ON
	Order Responded batch	C	VN	
	Supplied batch	C	AAG	AAG
Order Responding	Order Responded batch	M	VN	VN
	Ordered batch	C	ON	ON
	Supplied batch	C	AAG	
Delivering	To be delivered batch	M	BT	BT
	Ordered delivery instruction	M	SRN	SRN
	Supplied batch	C	AAG	
	Ordered batch	C	ON	
	Order Responded batch	C	VN	VN
Invoicing	Invoiced batch	M	IV	
	Supplied batch	C	AAG	
	Ordered batch	C	ON	
	Order Responded batch	C	VN	
	To be delivered batch	C	BT	BT
	Ordered delivery instruction	C	SRN	SRN
Notifying status*	Status batch	M	AQK	
	Supplied batch	C	AAG	
	Ordered batch	C	ON	
	Order Responded batch	C	VN	
	To be delivered batch	C	BT	
	Ordered delivery instruction	C	SRN	
	Invoiced batch	C	IV	

* *Notifying (status): this information flow can be used within each process stage.*

5.2.3 New, changed, duplicate batch

The actual state of a batch will be determined as follows:

- New the batch does not exists
- Changed the batch exists
- Duplicate the batch exists (in case of a resend)

Next to the technical state of a batch, a functional status may be present such as 'sold out' in case if a supplied batch.

5.3 Asynchrony communication and message sequence

In case of asynchrony communication it may occur that messages sent later are being received earlier. This will be more an exception rather a normal situation. The following processing sequence should be used:

- Received date/time of the message
- Sent date/time of the message
- Creation date/time of a batch
- Batch ID

A duplicate will have equal values of above attributes

By checking on the creation date/time of a batch a roll back of changes can be prevented in case of:

1. A change is being received earlier than the original batch
2. The second change is being received earlier than the first change

The sequence of message flows is described within a scenario. In some scenario's it is not possible to send a change without first receiving a message on the preceding change.

5.4 Resending of information

A correct sequence and process control of received messages will result in a correct handling of a resend batches. Checking on previously mentioned attributes, the actual state of a batch may be new, changed or duplicate.

5.5 Object references

References to objects are also being used within the information flow. These references are not used to link processes as described in this document. These references are listed in this document (see attachments).

6. Attachments

6.1 XML example batch

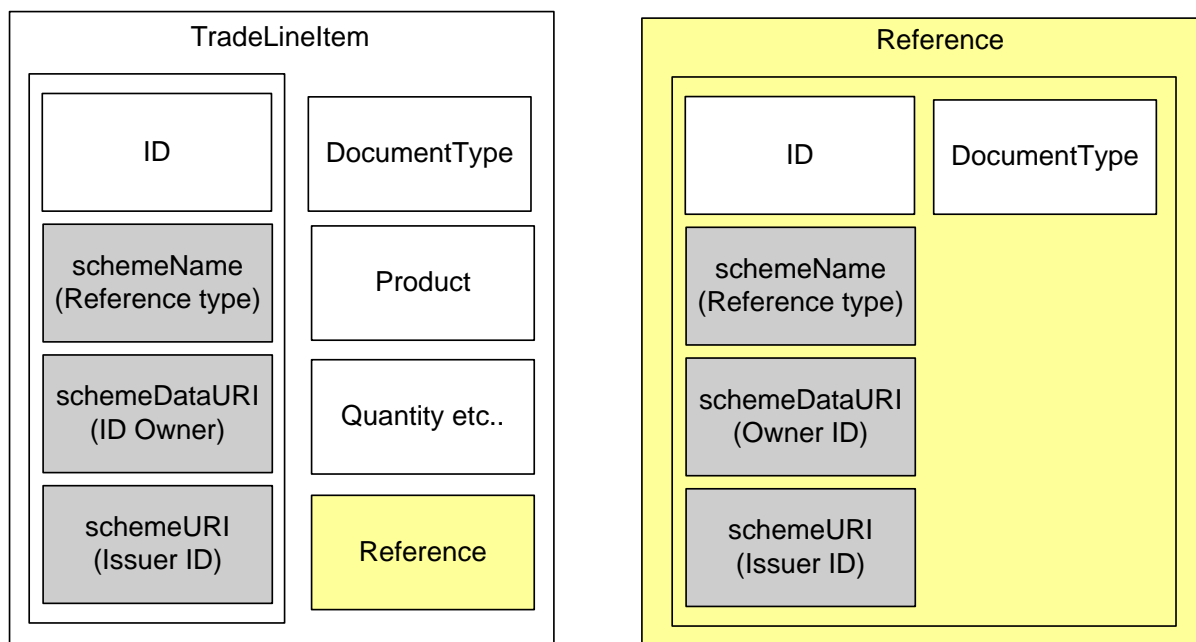
The supplied batch, included in information flow 'SupplyTradeLineItem', will be identified by '12345', issued by PlantConnect for seller/grower 'X'

SupplyTradeLineItem	XML element tag	Content	Meaning
Batch ID	ID	12345	Supplied Batch ID
Reference type	schemeName	AAG	Process stage Supplying
Owner of the ID	schemeDataURI	8714231140188	Seller (grower) ID
Issuer of the ID	schemeURI	8714231145400	PlantConnect ID
Document type	TypeCode	310	Further characterization: selective supply

Gray marked: attributes of a batch ID.

6.2 Reference

The aggregated component 'TradeLineItem' contains all components to hold information a supplied ordered, order responded, to be delivered and invoiced batch. Next to this it contains an reference component in order to refer to a batch (in the preceding process stage(s) or the same process stage).



6.3 Object reference types (UN data-element 1153)

Reference type	Description
AAA	Acknowledgement of order number
AAB	Proforma invoice number
AAD	Contract addendum number
AAJ	Delivery order number (aggregate order)
AAK	Delivery message number (technical document reference)
AAQ	Load carrier ID
AAS	Transport file number (Dutch: transportdossiernummer)

ABZ	License plate number
ACD	D/C indication (direct/catalogue)
ACE	Supply note sequence number (Dutch: aanvoerbrieff(volgnummer))
ACH	Batch part (Dutch: partijdeel)
ACL	Service code
ADE	Account number
ADZ	Buyer plate number (Dutch: koperplaatnummer)
AEU	Supplier's control number
AGJ	Transaction sequence number per clock (Dutch: transactie volgnummer per klok)
AGP	Load carrier note (Dutch: ladingdragerbon)
AHO	Chamber of commerce number (Dutch: KvK nummer)
AHU	Request for quotes (technical document reference)
AID	Reliability index value (Dutch: betrouwbaarheidsindex)
ALV	Registered capital reference
AP	Account receivable number
AST	Group reference number
AWB	Airwaybill number
BN	Carrier file number (Dutch: vervoerderdossiernummer)
CKN	Transport file number
CLN	Catalogue line number
CMR	CMR number
CN	Carrier reference number
CO	Buyer's order number (technical document reference)
CR	Customer reference number
CS	Condition of sale document number (aggregate supply)
CT	Contract number
CTS	Clock seat number (Dutch: klok zetelnummer)
CU	Consignor's reference number
DM	Document number (technical document reference)
DQ	Delivery message number (technical document reference)
ER	Container/equipment receipt number (Packaging note, Dutch: fustbon)
EX	Export license (Dutch: exportvergunning)
FAC	Clock number (Dutch: kloknummer)
FAN	Batch sequence number (Dutch: partijvolgnummer)
FC	Fiscal number
FN	Freight bill number
GN	Government reference number
IA	Internal vendor number
IL	Internal order number
IP	Import license number
IRN	Image reference number
IT	Internal customer number
LRN	Label number
OH	Previous invoice number
OLN	Offer line number
PE	Plant number (Dutch: tuinnummer)
PL	Price list number

POR	Purchase order response number (technical document reference)
PQ	Payment reference number
PSN	Product sample number
PY	Payee's financial institution account number
RF	Export reference number
RMR	Mutually defined reference (Dutch: Onderling afgesproken referentie)
SA	Sales person number
SS	Seller's reference number
SZ	Specification number
UO	Ultimate customer's order number
VA	VAT registration number
VON	Voyage number
WS	Warehouse storage location number
XA	Company/place registration number
ZZZ	Mutually defined reference (Dutch: Onderling afgesproken referentie)

List date: 28-8-2009

See code list 8 (FEC03xxxx dataset) for latest values of UN data-element 1153 (reference types).