Aviation Fuel Data Standards Group

XML Standard for Electronic Fuel Transaction

Version 3.0.0
09 August 2007

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DOCUMENT REVISION HISTORY

Revision Record

Version	Date	Modified Sections / Description
1.0 Draft	9 October 2004	Laurie Kern (BE) /Initial Draft, based upon Fuel Invoice draft
0.0.1	2 December 2004	Laurie Kern (BE) changes made per Task Force meeting
0.0.2	28 February 2005	Laurie Kern (BE) split nodes based upon Contract/Non-Contract payment and other changes per task force discussions
0.0.3	28 April 2005	Chaithanya Kadiyala (BE) made changes as per task force discussions and suggestions.
Release Candidate (RC) 1.0	5 July 2005	Bryan Terry (BE) made changes per Group discussion and suggestions.
Release Candidate (RC) 1.2	31 October 2005	Bryan Terry (BE) made changes per Group discussion and suggestions.
2.0.0	16 December 2005	Mark Johnson (CGFL) amendment s relating to the structure of the schema following Miami discussions. Also now references an external file (namespace) for its enumeration content.
2.0.1	15 January 2006	Version formating amended to Mijor, Minor and Revision for easy versioning control
2.0.2	30 January 2006	Amended AircraftMeasurements element under the IPTLine node to optional (as stated in the documentation) Added optional field (Remark) to LocalTax and SubTax elements. This allows additional code information to be passed and ensures consistency with the Charges element Documentation amended to include additional payment types “CA” and “CC” which were originally under the cash portion (now merged into one) Documentation also updated to reflect changes in codes for the TicketReferenceValueType field to mirror the invoice schema
3.0.0	26 June 2007	Various changes made by the Fuel Data Standards Group.
3.0.0	09 August 2007	Error in documentation corrected (lines 266 to 272, level updated)

Overview

PURPOSE:

The Aviation Fuel Data Standards Group (the "Group") is proposing a standardized electronic Fuel Transaction that can be used by Fuel Suppliers / Into-Plane Service Providers / FBOs to forward Fuel Transaction information to both fuel suppliers and airlines in the airline industry. The purpose of the proposed standard is to facilitate a cost effective exchange of data between parties to ensure an accurate consummation of a buy/sell transaction.

Background:

The Group has created a proposal for a standardized format for electronic Fuel Transactions. An initial meeting was held with the Group to review the need for a standardized electronic Fuel Transaction format and to discuss the requirement data elements and layout. Based on the results of this workshop, a standardized file layout has been proposed. Additional comments received after the conclusion of the meetings have been incorporated into this document. Other comments and suggestions may be incorporated with future revisions to the standard.

Proposed Electronic Fuel Transaction Standard

The proposed Electronic Fuel Transaction standard is based on the existing JetA.com standards. The JetA requirements were reviewed along with anecdotal usage of the EDI standards and comments from the IATA Fuel XML Task Force to develop the proposed XML standard. The proposal contains the ticket data elements that are necessary to provide information to the customer for review, attestation and approval of a fuel purchase.

The proposed fuel transaction standard is presented in Table 1 and the XML schema is available in Appendix. The XML schema may vary in structure as represented in Table 1 due to the use of XML standards in constructing the schema. Table 1 is constructed as follows:

1. Structure – the major sections of a Electronic Fuel Transaction. The level numbers represent subsets of the structure. Depending on the nature of the subset, the subset may be repeated to provide additional information. In addition, a subset may be optional. If a subset is optional, any required element is only required when the subset is used.
2. Element – the element represents the ticket data element containing a value or information required by the supplier or customer to process and settle a Electronic Fuel Transaction. Some elements may be required while others are optional. The values of an element may follow the existing industry standards or specific requirements by the parties involved.
3. Description – the description provides additional information or clarification of the Element.
4. Repeat – indicates how many times the element or structure can be present at that level in the structure.
5. Element Attributes – describes the attributes of each element: R=required, O=optional, C=Choice, Type=numeric or alphanumeric, Length=length of element and if numeric what type of number.
6. Value Source – identifies the source of the value or brief description of the value.
7. Notes – additional information on the use of the ticket element.

Review of Sample Electronic Fuel Transactions

Several fuel suppliers agreed to provide samples of their ticket formats representing different types of Electronic Fuel Transactions. Once these samples are received, the samples will be compared to the proposed ticket layout to identify if any structural issues are evident with the proposed standard.

Table 1 - Fuel Transaction Standard: changes compared to version 2.0.2

This table highlights the differences between the previous production version 2.0.2 and the new version 3.0.0

ROW	ELEMENT NAME	NOTES
1	OpenTag	Includes optional link to a HTML layout
4	FuelTransactionTransmissionId	New required element
14	TicketType	Added new value: “D” for delete
71-77	CurrencyConversion	New optional element (complex type with subelements) Replaces the optional element “ExchangeRate” from version 2.0.2
87-93	LocalTaxCurrencyConversion	New optional element (complex type with subelements) Replaces the optional element “ExchangeRate” from version 2.0.2
111-117	SubTaxCurrencyConversion	New optional element (complex type with subelements) Replaces the optional element “ExchangeRate” from version 2.0.2
144	MeterReadingStart	Expanded size from 18,4 to 18,6
145	MeterReadingEnd	Expanded size from 18,4 to 18,6
146	MeterQuantityDelivered	Expanded size from 18,4 to 18,6
148	TotalQuantity	Expanded size from 18,4 to 18,6
157	DepartureFuelQuantity	Expanded size from 18,4 to 18,6
163	RequiredTankQuantity	Expanded size from 18,4 to 18,6
167	TankQuantityDelivered	Expanded size from 18,4 to 18,6
171	TotalFuelQuantity	Expanded size from 18,4 to 18,6
226-232	CurrencyConversion	New optional element (complex type with subelements) Replaces the optional element “ExchangeRate” from version 2.0.2
242-248	LocalTaxCurrencyConversion	New optional element (complex type with subelements) Replaces the optional element “ExchangeRate” from version 2.0.2
266-272	SubTaxCurrencyConversion	New optional element (complex type with subelements) Replaces the optional element “ExchangeRate” from version 2.0.2
299	MeterReadingStart	Expanded size from 18,4 to 18,6
300	MeterReadingEnd	Expanded size from 18,4 to 18,6
301	MeterQuantityDelivered	Expanded size from 18,4 to 18,6
303	TotalQuantity	Expanded size from 18,4 to 18,6
313	TotalFuelQuantity	Expanded size from 18,4 to 18,6
316	FuelTransactionTotalFuelQuantity	Expanded size from 18,4 to 18,6

Table 2 - Proposed Electronic Fuel Transaction Standard Layout

Note: There are instances in the table where a parent node is qualified as optional but the child elements are qualified as required. This represents that if the parent node is present, then the child elements, which have been qualified as required need to be present.

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
1		OpenTag	<?xml version="1.0" encoding="UTF-8" ?> <?xml-stylesheet type="text/xml" href="name_of_stylesheet.xsl"?>						**Opening tag and** optional link to a HTML layout (substitute the actual stylesheet name for "name_of_stylesheet"). Code directory and base data type are referenced.
2	**0**	**FuelTransactionTransmission**	Parent Node for all tickets	1	R				
3	**1**	**FuelTransactionTransmissionHeader**	Header information node in the transmission	1	R				
4	2	FuelTransactionTransmissionId	Unique identifier for the file transmitted.	1	R	AN	50		This will be referenced in the Acknowledgment message if used.
5	2	FuelTransactionCreationDate**	Date of creation of the Transaction file	1	R	DT			Format is of format: YYYY-MM-DD hh:mm:ss
6	2	FuelTransactionVersion	Current Version of the Schema	1	R	AN	8	Use the current Version of this document	
7	**1**	**FuelTransaction**		1-48000					There can be multiple FuelTransaction nodes but under this node, there is a choice of IPTContract, IPTOther or BMTicket. (You can choose only one per FuelTransaction)
8	2	IPTransaction	Parent for all into plane transactions	1	C				This is the root for IntoPlane Transactions only. It is an choice field with BM Transaction
9	**3**	**Header**		1	R				
10	4	IntoPlaneCode	Code of Company loading fuel into plane	1	R	AN	5	Refer to IATA code directory IntoPlane Codes Table R	Code List to be developed
11	4	IntoPlaneName	Name of Company loading fuel into plane.	0-1	O	AN	25		
12	4	AirportCode	Fueler must be associated to a location group that contains this Airport code.	1	R	A	5	Refer to IATA code directory Section A (Airport Codes)	*Strictly airport code*
13	4	TicketNumber	Delivery Ticket Number	1	R	AN	20		
14		Attribute: TicketType (of TicketNumber)	Type of Ticket	1	R	AN	3	Use list of codes: • O = Original • R = Reissue • C = Cancel • D = Delete Add others as required	D shall not be used for Canceled tickets or when ticket status is Final Cancel means that the ticket may be reissued (R) and an invoice will be issued (not for Delete)

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
15		Attribute: TicketSource (of TicketNumber)	Source of ticket	1	R	A	1	Codes • M - Manual • E-Electronic	
16		Attribute: TicketStatus (of ticket number)	Status of ticket	1	R	A	1	Codes P = Pending F = Final	Intended for use related to stock validation
17		Attribute: TicketCancelOperator (of ticket number)	Positive or negative depending on cancel or reissue	1	O			Use list of codes: • P = Positive • N = Negative	Required if ticket type was cancel
18	4	UniqueTicketID**	Recommended field to create a unique ticket identifier	1	O	AN	50		Recommended elements - location code - supplier code - date - ticket number - ticket type
19	4	PreviousTicketNumber	Used to reference an earlier ticket.	0-1	O	AN	20		A verification of the ticket number should be done against the system. Required if TicketType = R or C
20		Attribute: PreviousITPDate (of OriginalTicket)	Date from original ticket	0-1	R	DT			
21	4	TransactionDate		1	R	DT			
22	4	Comments	For other notes	0-1	O	AN	512		
23	**3**	**FlightInformation**	**Details of the Flight receiving the IntoPlane Transaction**	**1**	**R**				
24	4	AirlineFlightID	Airlines Flight Identification Number	1	R	AN	10	AF=Airline Flight Identification Number	XXX if no flight number is available.
25	4	AircraftIdentification	Aircraft Identification(Tail or Nose)	1	R	AN	10	AR=Aircraft Identification (tail or nose)	
26	4	InternationalFlight		1	R	Boolean	1	(Note: Boolean = true/false or 1/0)	
27	4	TicketReferenceValue	Reference value	0-50	O	AN	50		

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
28		Attribute: TicketReferenceValueType (of TicketReferenceValue)	Reference type such as contract number, purchase order number, equipment number, aircraft number, flight number, ticket number, next destination; final destination etc.	1	R	AN	3	Use list of codes: • AC = Aircraft Type • AID= Authority issued equipment • BAT=Batch • BOL=Bill of Lading • CID=Company Issued Equipment ID • CTN=Contract No. • D = Delay (enter reason for delay) • FDT=Final Destination • FO = Flight Origin • NDT=Next Destination • OFD = Origin Flight Date (YYYY-MM-DD) • identification • PO=Purchase Order • SO=Sales Order • TAX=Tax Create code values if necessary	Recommended to use IATA aircraft codes when necessary Reference Table Q (Dimension B)
29	4	FlightType		0-1	O	AN	3	Use list of codes: • P = Passenger • C = Cargo • M = Military • CH = Charter • FF = Ferry Flight • TF = Test Flight • TR = Training Flight	
30		Attribute: FlightServiceType (of FlightType)		0-1	O	AN	3	Use list of codes: • AH = Ad-Hoc • S= Scheduled	
31	4	ScheduledFlightDate	Scheduled Date of the Flight (Original) (YYYY-MM-DD)	0-1	O	DT			
32	**3**	**PaymentInformation**		1	R				
33	4	PaymentType	Method of Payment	1	R	AN	3	Use list of codes: • CN = Carnet • CO = Contract • CC = Credit Card • CA = Cash Add others as required	For contract – CN and CO If CO, then CardInformation is Optional, if CN Card Information is required If CA ot CC is used, the Amount received field must be populated with the value of the sale.

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
34	**4**	**CardInformation**		0-1	O				
35	5	CardName	Name on the Card	1	R	AN	35		Required when PaymentType=CN or CC
36	5	CardNumber	Account Number on the card	1	R	AN	20		Required when PaymentType=CN or CC
37	5	CardExpiry	Date Card expires (YYYY-MM-DD)	1	R	DT			Required when PaymentType=CN or CC Date must be greater than or equal to the current date of the airport location listed in the AirportCode
38	5	CardSecurityCode		1	O	N	4		
39	5	AmountReceived	Amount of Cash or Card charge	1	R	N	18,2		Required when PaymentType=CA or CC. Amount must be positive
40		Attribute: Currency (of AmountReceived)		0-1	O	AN	3	Refer to IATA code directory Section C (Currency Codes)	Required if PaymentType= CC or CA
41	**3**	**IPTLine**		1	R				
42	**4**	**IPTransactionType**		**1**	**R**				
43	5	IPTransactionCode		1	R	AN	3	Refer to IATA code directory Table S (IntoPlaneTransaction Codes)	Type of transaction
44	**4**	**TransactionParties**							
45	**5**	**Sale**		**1**	**C**				**Use if a sale has been completed as a result of the transaction. Usually as a result of an IntoPlane transaction, but can also be used for Bulk Movement. The Receiver Code will be required in this instant**
46	6	ReceiverCode	Airline Code	1	R	AN	4	Refer to IATA code directory Table U (Receiver Codes)	Airline Code receiving the IntoPlane transaction
47	6	ReceiverName	Receiving Party	0-1	O	AN	50		Airline Name receiving the IntoPlane transaction
48	6	AccountCustomerNumber	Who to bill	1	R	AN	20		
49	6	SupplierOROwnerCode	Company Code	1	R	AN	5	Refer to IATA code directory Table V – Supplier Codes	Inventory holder's code.
50	6	SupplierOROwnerName	Name of Company	0-1	O	AN	25		Inventory holder's name.
51	**5**	**NonSale**		**1**	**C**				**Use if a sale has not been completed as a result of the transaction. Usually as a result of an Bulk Movement transaction**

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
52	6	ReceiverCode	Airline Code	0-1	O	AN	4	Refer to IATA code directory Table U (Receiver Codes)	Airline Code receiving the IntoPlane transaction
53	6	ReceiverName	Receiving Party	0-1	O	AN	50		Airline Name receiving the IntoPlane transaction
54	6	AccountCustomerNumber	Who to bill	0-1	R	AN	20		
55	6	SupplierOROwnerCode	Company Code	1	R	AN	5	Refer to IATA code directory Table V – Supplier Codes	Code List to be developed Inventory holder's code.
56	6	SupplierOROwnerName	Name of Company	0-1	O	AN	25		Inventory holder's name.
57	**4**	**MovementInformation**		**1**	**R**				**Information containing the movement of the fuel product**
58		Attribute: Direction (of MovementInformation)		1	R	AN	2	Use list of codes: • TO • FR	Direction of the Movement
59	**5**	**ProductInformation**		**1-200**	**R**	**AN**			
60	6	ProductID	Identifying number/code of product or service	1	R	AN	15	Refer to IATA code directory Section D (Product Codes)	For example: JetA, list to be developed
61		Attribute: ProductIDCustoms (of ProductID)	Indicates the customs status of fuel.	0-1	O	AN	3	Refer to IATA code directory Section P (Customs)	For example: Bonded
62		Attribute: ProductIDQualifier (of ProductID)	Qualifier of product or service	0-1	O	AN	4	Use Codes: PRDT(Product) FEE (Fee) OTHR(Other)	
63	6	ProductDescription	Description of product/service	0-1	O	AN	25		Description of the product or any notes related to the product.
64	**6**	**Charges**	**Extra Charges**	**0-1**	**O**				
65	7	Remark	allow a further specification of the charge where required.	0-1	O	AN	30		
66	7	UnitRate	Pricing Unit Rate	1	R	N	18,4		
67	7	CurrencyCode	CurrencyCode	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
68	7	UnitRateType	Pricing type use for the unit rate	1	R	AN	3	Use list of codes: • P=Percent • FF = Flat Fee • UR = Unit Rate Add others as required	
69	7	UOMFactor	UOM Factor used to convert pricing	0-1	O	N	18,4		
70	7	UOM	Pricing Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
71	7	CurrencyConversion		0-1	O				Describes how an amount in CurrencyFrom is converted into an amount in CurrencyTo.

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
72	8	ConversionMechanism		1	R	AN	1	Valid values: • M = Multiply • D = Divide	
73	8	CurrencyFrom		1	R	AN	3	Use IATA Codes, Section C (Currency).	
74		Attribute: FactorFrom (of CurrencyFrom)	Factor that CurrencyFrom should be multiplied with.	1	R	N	9		
75	8	CurrencyTo		1	R	AN	3	Use IATA Codes, Section C (Currency).	
76		Attribute: FactorTo (of CurrencyTo)	Factor that CurrencyTo should be multiplied with.	1	R	N	9		
77	8	ExchangeRate	Exchange rate value	1	R	N	18,6		
78	**6**	**LocalTax**	Node listing all the local tax details	0-unbounded	O				
79		Attribute: LocalTaxType (of LocalTax)	Type of Tax such as GST, VAT, Federal Excise, Custom, Petroleum, Environmental, Excise, tax exempt etc. represented by the Invoice Lines	1	R	AN	3	Refer to IATA code directory Section F (TaxType Code)	
80	7	LocalTaxDescription	Description of tax	0-1	O	AN	35		
81	7	LocalTaxCategoryCode	Specific Tax codes within a tax type	0-1	O	AN	3	Use list of codes: • L=Lower Rate • H=Higher rate • S=Standard rate • Z=Zero rated goods Create additional code values if necessary	Required for VAT, excise tax;
82	7	LocalTaxLocalJurisdictionTaxBasis	Tax basis for local tax jurisdiction	0-1	O	AN	2	Use list of codes: • GR=Gross • NT=Net	
83	7	LocalTaxJurisdictionCodeQualifier	Identifies source of the tax jurisdiction code	0-1	O	AN	10	No List at this time	Code List to be developed
84	7	LocalTaxJurisdictionCode	Tax jurisdiction code	0-1	O	AN	10	No List at this time	All State and local taxes Code List to be developed
85	7	LocalTaxRateType	Indicates how rate is determined	1	R	AN	2	Use list of codes: • P=Percent • FF = Flat Fee • UR = Unit Rate	
86	7	LocalTaxPricingCurrencyCode	Currency (Standard ISO Code)	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
87	7	LocalTaxCurrencyConversion		0-1	O				Describes how an amount in CurrencyFrom is converted into an amount in CurrencyTo.

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
88	8	ConversionMechanism		1	R	AN	1	Valid values: • M = Multiply • D = Divide	
89	8	CurrencyFrom		1	R	AN	3	Use IATA Codes, Section C (Currency).	
90		Attribute: FactorFrom (of CurrencyFrom)	Factor that CurrencyFrom should be multiplied with.	1	R	N	9		
91	8	CurrencyTo		1	R	AN	3	Use IATA Codes, Section C (Currency).	
92		Attribute: FactorTo (of CurrencyTo)	Factor that CurrencyTo should be multiplied with.	1	R	N	9		
93	8	ExchangeRate	Exchange rate value	1	R	N	18,6		
94	7	LocalTaxPricingUOM	UOM associated with pricing quantity and tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	
95	7	LocalTaxPricingUOMFactor	UOM factor used to convert for tax calculation	0-1	O	N	18,6		
96	7	LocalTaxPricingRate	Tax rate expressed in decimal format used in pricing	0-1	O	N	18,6		Can be a flat fee.
97	7	LocalTaxPricingAmount	Tax represented for the pricing quantity and rate	1	R	N	18,2		
98	7	LocalTaxTicketCurrencyCode	Currency (Standard ISO Code) for Invoice Tax	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
99	7	LocalTaxTicketUOM	UOM associated with invoice quantity and invoice tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	
100	7	LocalTaxTicketUnitRate	Tax rate expressed in decimal format used for the invoice	1	R	N	18,6		
101	7	LocalTaxTicketAmount	Tax represented for the invoice quantity and rate	1	R	N	18,2		
102	**7**	**SubTax**	Node additiona1 tax on tax	0-unbounded	O				
103		Attribute: SubTaxType (of SubTax)	Type of Tax such as GST, VAT, Federal Excise, Custom, Petroleum, Environmental, Excise, tax exempt etc. represented by the Invoice Lines	1	R	AN	3	Refer to IATA code directory Section F (TaxType Code)	
104	8	SubTaxDescription	Description of tax	0-1	O	AN	35		
105	8	SubTaxCategoryCode	Specific Tax codes within a tax type	0-1	O	AN	3	Use list of codes: • L=Lower Rate • H=Higher rate • S=Standard rate • Z=Zero rated goods Create additional code values if necessary	Required for VAT, excise tax;

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
106	8	SubTaxJurisdictionTaxBasis	Tax basis for local tax jurisdiction	0-1	O	AN	2	Use list of codes: • GR=Gross • NT=Net	
107	8	SubTaxJurisdictionCodeQualifier	Identifies source of the tax jurisdiction code	0-1	O	AN	10	No List at this time	i.e.: State, Federal, City Code List to be developed
108	8	SubTaxJurisdictionCode	Tax jurisdiction code	0-1	O	AN	10	No List at this time	Code List to be developed
109	8	SubTaxRateType	Indicates how rate is determined	1	R	AN	2	Use list of codes: • P=Percent • FF = Flat Fee • UR = Unit Rate	
110	8	SubTaxPricingCurrencyCode	Currency (Standard ISO Code)	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
111	8	SubTaxCurrencyConversion		0-1	O				Describes how an amount in CurrencyFrom is converted into an amount in CurrencyTo.
112	9	ConversionMechanism		1	R	AN	1	Valid values: • M = Multiply • D = Divide	
113	9	CurrencyFrom		1	R	AN	3	Use IATA Codes, Section C (Currency).	
114		Attribute: FactorFrom (of CurrencyFrom)	Factor that CurrencyFrom should be multiplied with.	1	R	N	9		
115	9	CurrencyTo		1	R	AN	3	Use IATA Codes, Section C (Currency).	
116		Attribute: FactorTo (of CurrencyTo)	Factor that CurrencyTo should be multiplied with.	1	R	N	9		
117	9	ExchangeRate	Exchange rate value	1	R	N	18,6		
118	8	SubTaxPricingUOM	UOM associated with pricing quantity and tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	
119	8	SubTaxPricingUOMFactor	UOM factor used to convert for tax calculation	0-1	O	N	18,6		
120	8	SubTaxPricingAmount	Tax represented for the pricing quantity and rate	1	R	N	18,2		
121	8	SubTaxPricingRate	Tax rate expressed in decimal format used in pricing	1	R	N	18,6		Can be a flat fee.
122	8	SubTaxTicketCurrencyCode	Currency (Standard ISO Code) for Invoice Tax	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
123	8	SubTaxTicketUOM	UOM associated with invoice quantity and invoice tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
124	8	SubTaxTicketUnitRate	Tax rate expressed in decimal format used for the invoice	1	R	N	18,6		
125	8	SubTaxTicketAmount	Tax represented for the invoice quantity and rate	1	R	N	18,2		
126	5	Plant		0-1	O	AN	25		
127	5	StorageLocation		0-1	O	AN	25		Incase of multiple inventory locations ,guessing this speciofies the storage source.???
128	5	StandNumber	Stand/Gate/Bay at which the fuel was delivered	0-1	O	AN	15		Optional, but highly recommended.
129	**5**	**Equipment**	**Parent Element**	**1-unbounded**	**R**				
130	6	FuelingEquipmentID	Used to identify the fueler or dispensing vehicle ID	1	R	AN	15		Name of code of the equipment used
131	6	FuelingType	Transport Type	1	R	AN	3	Use list of codes: • HYD=Hydrant • REF=Re-Fueler Add others as required	
132	6	PITNumber	The hydrant pit number from which the fuel was delivered	0-1	O	AN	15		Only used if fuel type is hydrant
133	6	Operator	Identification number, code or name of person who has delivered the fuel	1	R	AN	50		Name of code of the Operator
134	6	AverageFuelTemperature		1	R				
135		Attribute: TUOM (of AverageFuelTemperature)	Unit of Measure used for Temperature	1	R	AN	3	Use list of codes: • C – Celsius • F - Fahrenheit	Fahrenheit or Celsius temperature measurement
136	**6**	**DensityInformation**		1-2	**R**				
137		Attribute: DensityType (of DensityInformation)	Type of Density	1	R	AN	3	Use list of codes: • MEA – Measured • STD - Standard	Measured or Standard Density
138	7	Density	Density of Fuel.	1	O	N	18,4		Should be between 740 and 860 , 0.74 and 0.86 or 6.175 and 7.177 measured in KG/M3, KG/LT, or LB/USG respectively. Must have either density or specific gravity required.
139		Attribute: DensityUOM (of Density)	Unit of Measure used for Density	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
140	7	Temperature		1	R	N	4,1		Required if Net Quantity Delivered is entered. Temperature should be between -47C and 50C or -53F and 122F.

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
141		Attribute: TUOM (of Temperature)	Unit of Measure used for Temperature	1	R	AN	1	Use list of codes: • C = Celsius • F = Fahrenheit	
142	**6**	**MeterReading**		1-10	R				
143		Attribute: MeterID (of Meter Reading)		1	O	AN	10		
144	7	MeterReadingStart	Starting Meter reading	1	R	N	18,6		Must be entered in meter reading ending is entered
145	7	MeterReadingEnd	Ending Meter reading	1	R	N	18,6		Must be entered in meter reading start is entered
146	7	MeterQuantityDelivered		1	R	N	18,6		Check for difference between meter reading start and meter reading end.
147		Attribute: MQDUOM (of MeterQuantityDelivered)	UOM of Quantity Delivered	1	R	AN	3	Refer to IATA code directory Section E (UOM)	? correct dimension
148	5	TotalQuantity	Sum of all meter quantity	1-3	R	N	18,6		Once for gross or once for Net or both
149		Attribute: TQDFlag (of TotalQuantity)	Identities gross or net quantity	1	R	AN	2	Use list of codes • GR=Gross • NT=Net	
150		Attribute: TQDUOM (of TotalQuantity)	Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	Make sure it covers weight
151	**5**	**TransactionTime**		1	R				
152	6	LocalDateTimeStart	Date/Time started, must be less than Date/Time finished (YYYY-MM-DDThh:mm:ss)	1	R	DT			
153	6	LocalDateTimeFinished	Date/Time started, must be greater than Date/Time started (YYYY-MM-DDThh:mm:ss)	1	R	DT			"Ticket Date"
154	6	GMTDateTimeStart	Date/Time started, must be less than Date/Time finished (YYYY-MM-DDThh:mm:ss)	0-1	O	DT			
155	6	GMTDateTimeFinished	Date/Time started, must be greater than Date/Time started (YYYY-MM-DDThh:mm:ss)	0-1	O	DT			
156	**4**	**AircraftMeasurements**		0-1	O				tanks
157	5	DepartureFuelQuantity	Amount of fuel in the aircraft	1	R	N	18,6		
158		Attribute: DFQUOM (of DepartureFuelQuantity)	Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
159	5	TolerenceLevel	Amount + / - allowed	0-1	O	N	18,4		
160		Attribute: TolerenceLevelType (of TolerenceLevel)	If tolerance is a percent or quantity of fuel amount requested	1	R	AN	3	Use code list: • P=Percent • Q=Quantity	

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
161	**5**	**TankMeasurements**		1-20	R				Use multiple if need to track individual
162	6	AircraftTankID		0-1	O	AN	20		
163	6	RequiredTankQuantity	Request from receiver for fuel amount	0-1	O	N	18,6		Requested from the receiver for fuel amount
164		Attribute: RTQUOM (of RequiredTankQuantity)	Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
165	6	PrefuelTankQuantity		0-1	O	N	18,4		RTQ=PTQ+TQD
166		Attribute: PTQUOM (of PrefuelTankQuantity)	Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
167	6	TankQuantityDelivered	Measured Quantity delivered.	1	R	N	18,6		In case of de-fueling, then quantity will be negative.
168		Attribute: TQDUOM (of TankQuantityDelivered)	Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
169	**3**	**Summary**		1	R				
170	4	FuelTransactionLineCount	Total Line counts for tickets	1	R	N	18		Count of the FuelTransactionLine elements for a FuelTransaction
171	4	TotalFuelQuantity		1	R	N	18,6		
172	**2**	**BMTransaction**	**Parent for all into plane transactions**	**1**	**C**				**This is the root for IntoPlane Transactions only. It is an choice field with BM Transaction**
173	**3**	**Header**		1	R				
174	4	IntoPlaneCode	Code of Company loading fuel into plane	1	R	AN	5	Refer to IATA code directory IntoPlane Codes Table Q	Code List to be developed Recommended starting source is IFQP codes**
175	4	IntoPlaneName	Name of Company loading fuel into plane.	0-1	O	AN	25		
176	4	AirportCode	Fueler must be associated to a location group that contains this Airport code.	1	R	A	5	Refer to IATA code directory Section A (Airport Codes)	*Strictly airport code*
177	4	TicketNumber	Delivery Ticket Number	1	R	AN	20		
178		Attribute: TicketType (of TicketNumber)	Type of Ticket	1	R	AN	3	Use list of codes: • O = Original • R = Reissue • C = Cancel Add others as required	

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
179		Attribute: TicketSource (of TicketNumber)	Source of ticket	1	R	A	1	Codes • M - Manual • E-Electronic	
180		Attribute: TicketStatus (of ticket number)	Status of ticket	1	R	A	1	Codes • P = Pending • F = Final	Intended for use related to stock validation
181		Attribute: TicketCancelOperator (of ticket number)	Positive or negative depending on cancel or reissue	1	O			Use list of codes: • P = Positive • N = Negative	Required if ticket type was cancel
182	4	UniqueTicketID**	Recommended field to create a unique ticket identifier	1	O	AN	50		Recommended elements - location code - supplier code - date - ticket number - ticket type
183	4	PreviousTicketNumber	Used to reference an earlier ticket.	0-1	O	AN	20		A verification of the ticket number should be done against the system. Required if TicketType = R or C
184		Attribute: PreviousITPDate (of OriginalTicket)	Date from original ticket	0-1	R	DT			
185	4	TransactionDate		1	R	DT			
186	4	Comments	For other notes	0-1	O	AN	512		
187	**3**	**PaymentInformation**		1	R				
188	4	PaymentType	Method of Payment	1	R	AN	3	Use list of codes: • CN = Carnet • CO = Contract Add others as required	For contract – CN and CO If CO, then CardInformation is Optional, if CN Card Information is required
189	**4**	**CardInformation**		0-1	O				
190	5	CardName	Name on the Card	1	R	AN	35		Required when PaymentType=CN
191	5	CardNumber	Account Number on the card	1	R	AN	20		Required when PaymentType=CN
192	5	CardExpiry	Date Card expires (YYYY-MM-DD)	1	R	DT			Required when PaymentType=CN . Date must be greater than or equal to the current date of the airport location listed in the AirportCode
193	5	CardSecurityCode		1	O	N	4		
194	5	AmountReceived	Amount of Cash or Card charge	1	R	N	18,2		Required when PaymentType=Cash or Credit Card. IF Cash, then amount must be positive

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
195		Attribute: Currency (of AmountReceived)		0-1	O	AN	3	Refer to IATA code directory Section C (Currency Codes)	Required if PaymentType= Credit Card or Cash
196	**3**	**BMLine**		1	R				
197	4	BMTransaction		1	R	AN			
198	5	BMTransactionCode		1	R	AN	3	Refer to IATA code directory Bulk Movement Transaction Codes (Table T)	Type of transaction
199	**4**	**TransactionParties**							
200	**5**	**Sale**		**1**	**C**				**Use if a sale has been completed as a result of the transaction. Usually as a result of an IntoPlane transaction, but can also be used for Bulk Movement. The Receiver Code will be required in this instant**
201	6	ReceiverCode	Airline Code	1	R	AN	4	Refer to IATA code directory Table U (Receiver Codes)	Airline Code receiving the IntoPlane transaction
202	6	ReceiverName	Receiving Party	0-1	O	AN	50		Airline Name receiving the IntoPlane transaction
203	6	AccountCustomerNumber	Who to bill	1	R	AN	20		
204	6	SupplierOROwnerCode	Company Code	1	R	AN	5	Refer to IATA code directory Table V – Supplier Codes	Inventory holder's code.
205	6	SupplierOROwnerName	Name of Company	0-1	O	AN	25		Inventory holder's name.
206	**5**	**NonSale**		**1**	**C**				**Use if a sale has not been completed as a result of the transaction. Usually as a result of an Bulk Movement transaction**
207	6	ReceiverCode	Airline Code	0-1	O	AN	4	Refer to IATA code directory Table U (Receiver Codes)	Airline Code receiving the IntoPlane transaction
208	6	ReceiverName	Receiving Party	0-1	O	AN	50		Airline Name receiving the IntoPlane transaction
209	6	AccountCustomerNumber	Who to bill	0-1	R	AN	20		
210	6	SupplierOROwnerCode	Company Code	1	R	AN	5	Refer to IATA code directory Table V – Supplier Codes	Inventory holder's code.
211	6	SupplierOROwnerName	Name of Company	0-1	O	AN	25		Inventory holder's name.
212	**4**	**MovementInformation**		**1**	**R**				**Information containing the movement of the fuel product**
213		Attribute: Direction (of MovementInformation)		1	R	AN	2	Use list of codes: • TO • FR	Direction of the Movement
214	**5**	**ProductInformation**		**1-200**	**R**				
215	6	ProductID	Identifying number/code of product or service	1	R	AN	15	Refer to IATA code directory Section D (Product Codes)	For example: JetA, list to be developed

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
216		Attribute: ProductIDCustoms (of ProductID)	Indicates the customs status of fuel.	0-1	O	AN	3	Refer to IATA code directory Section P (Customs)	For example: Bonded
217		Attribute: ProductIDQualifier (of ProductID)	Qualifier of product or service	0-1	O	AN	4	Use Codes: • PRDT(Product) • FEE (Fee) • OTHR(Other)	
218	6	ProductDescription	Description of product/service	0-1	O	AN	25		Description of the product or any notes related to the product.
219	**6**	**Charges**	**Extra Charges**	**0-1**	**O**				
220	7	Remark	allow a further specification of the charge where required.	0-1	O	AN	30		
221	7	UnitRate	Pricing Unit Rate	1	R	N	18,4		
222	7	CurrencyCode	CurrencyCode	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
223	7	UnitRateType	Pricing type use for the unit rate	1	R	AN	3	Use list of codes: • P=Percent • FF = Flat Fee • UR = Unit Rate Add others as required	
224	7	UOMFactor	UOM Factor used to convert pricing	0-1	O	N	18,4		
225	7	UOM	Pricing Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
226	7	CurrencyConversion		0-1	O				Describes how an amount in CurrencyFrom is converted into an amount in CurrencyTo.
227	8	ConversionMechanism		1	R	AN	1	Valid values: • M = Multiply • D = Divide	
228	8	CurrencyFrom		1	R	AN	3	Use IATA Codes, Section C (Currency).	
229		Attribute: FactorFrom (of CurrencyFrom)	Factor that CurrencyFrom should be multiplied with.	1	R	N	9		
230	8	CurrencyTo		1	R	AN	3	Use IATA Codes, Section C (Currency).	
231		Attribute: FactorTo (of CurrencyTo)	Factor that CurrencyTo should be multiplied with.	1	R	N	9		
232	8	ExchangeRate	Exchange rate value	1	R	N	18,6		
233	**6**	**LocalTax**	Node listing all the local tax details	0-unbounded	O				

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
234		Attribute: LocalTaxType (of LocalTax)	Type of Tax such as GST, VAT, Federal Excise, Custom, Petroleum, Environmental, Excise, tax exempt etc. represented by the Invoice Lines	1	R	AN	3	Refer to IATA code directory Section F (TaxType Code)	
235	7	LocalTaxDescription	Description of tax	0-1	O	AN	35		
236	7	LocalTaxCategoryCode	Specific Tax codes within a tax type	0-1	O	AN	3	Use list of codes: • L=Lower Rate • H=Higher rate • S=Standard rate • Z=Zero rated goods Create additional code values if necessary	Required for VAT, excise tax;
237	7	LocalTaxLocalJurisdictionTaxBasis	Tax basis for local tax jurisdiction	0-1	O	AN	2	Use list of codes: • GR=Gross • NT=Net	
238	7	LocalTaxJurisdictionCodeQualifier	Identifies source of the tax jurisdiction code	0-1	O	AN	10	No List at this time	Code List to be developed
239	7	LocalTaxJurisdictionCode	Tax jurisdiction code	0-1	O	AN	10	No List at this time	All State and local taxes Code List to be developed
240	7	LocalTaxRateType	Indicates how rate is determined	1	R	AN	2	Use list of codes: • P=Percent • FF = Flat Fee • UR = Unit Rate	
241	7	LocalTaxPricingCurrencyCode	Currency (Standard ISO Code)	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
242	7	LocalTaxCurrencyConversion		0-1	O				Describes how an amount in CurrencyFrom is converted into an amount in CurrencyTo.
243	8	ConversionMechanism		1	R	AN	1	Valid values: • M = Multiply • D = Divide	
244	8	CurrencyFrom		1	R	AN	3	Use IATA Codes, Section C (Currency).	
245		Attribute: FactorFrom (of CurrencyFrom)	Factor that CurrencyFrom should be multiplied with.	1	R	N	9		
246	8	CurrencyTo		1	R	AN	3	Use IATA Codes, Section C (Currency).	
247		Attribute: FactorTo (of CurrencyTo)	Factor that CurrencyTo should be multiplied with.	1	R	N	9		
248	8	ExchangeRate	Exchange rate value	1	R	N	18,6		
249	7	LocalTaxPricingUOM	UOM associated with pricing quantity and tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
250	7	LocalTaxPricingUOMFactor	UOM factor used to convert for tax calculation	0-1	O	N	18,6		
251	7	LocalTaxPricingRate	Tax rate expressed in decimal format used in pricing	0-1	O	N	18,6		Can be a flat fee.
252	7	LocalTaxPricingAmount	Tax represented for the pricing quantity and rate	1	R	N	18,2		
253	7	LocalTaxTicketCurrencyCode	Currency (Standard ISO Code) for Invoice Tax	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
254	7	LocalTaxTicketUOM	UOM associated with invoice quantity and invoice tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	
255	7	LocalTaxTicketUnitRate	Tax rate expressed in decimal format used for the invoice	1	R	N	18,6		
256	7	LocalTaxTicketAmount	Tax represented for the invoice quantity and rate	1	R	N	18,2		
257	**7**	**SubTax**	Node additiona1 tax on tax	0-unbounded	O				
258		Attribute: SubTaxType (of SubTax)	Type of Tax such as GST, VAT, Federal Excise, Custom, Petroleum, Environmental, Excise, tax exempt etc. represented by the Invoice Lines	1	R	AN	3	Refer to IATA code directory Section F (TaxType Code)	
259	8	SubTaxDescription	Description of tax	0-1	O	AN	35		
260	8	SubTaxCategoryCode	Specific Tax codes within a tax type	0-1	O	AN	3	Use list of codes: • L=Lower Rate • H=Higher rate • S=Standard rate • Z=Zero rated goods Create additional code values if necessary	Required for VAT, excise tax;
261	8	SubTaxJurisdictionTaxBasis	Tax basis for local tax jurisdiction	0-1	O	AN	2	Use list of codes: • GR=Gross • NT=Net	
262	8	SubTaxJurisdictionCodeQualifier	Identifies source of the tax jurisdiction code	0-1	O	AN	10	No List at this time	i.e.: State, Federal, City Code List to be developed
263	8	SubTaxJurisdictionCode	Tax jurisdiction code	0-1	O	AN	10	No List at this time	Code List to be developed
264	8	SubTaxRateType	Indicates how rate is determined	1	R	AN	2	Use list of codes: • P=Percent • FF = Flat Fee • UR = Unit Rate	
265	8	SubTaxPricingCurrencyCode	Currency (Standard ISO Code)	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
266	8	SubTaxCurrencyConversion		0-1	O				Describes how an amount in CurrencyFrom is converted into an amount in CurrencyTo.

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
267	9	ConversionMechanism		1	R	AN	1	Valid values: • M = Multiply • D = Divide	
268	9	CurrencyFrom		1	R	AN	3	Use IATA Codes, Section C (Currency).	
269		Attribute: FactorFrom (of CurrencyFrom)	Factor that CurrencyFrom should be multiplied with.	1	R	N	9		
270	9	CurrencyTo		1	R	AN	3	Use IATA Codes, Section C (Currency).	
271		Attribute: FactorTo (of CurrencyTo)	Factor that CurrencyTo should be multiplied with.	1	R	N	9		
272	9	ExchangeRate	Exchange rate value	1	R	N	18,6		
273	8	SubTaxPricingUOM	UOM associated with pricing quantity and tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	
274	8	SubTaxPricingUOMFactor	UOM factor used to convert for tax calculation	0-1	O	N	18,6		
275	8	SubTaxPricingAmount	Tax represented for the pricing quantity and rate	1	R	N	18,2		
276	8	SubTaxPricingRate	Tax rate expressed in decimal format used in pricing	1	R	N	18,6		Can be a flat fee.
277	8	SubTaxTicketCurrencyCode	Currency (Standard ISO Code) for Invoice Tax	1	R	AN	3	Refer to IATA code directory Section C (Currency Code)	
278	8	SubTaxTicketUOM	UOM associated with invoice quantity and invoice tax rate;	0-1	O	AN	3	Refer to IATA code directory Section E (UOM)	
279	8	SubTaxTicketUnitRate	Tax rate expressed in decimal format used for the invoice	1	R	N	18,6		
280	8	SubTaxTicketAmount	Tax represented for the invoice quantity and rate	1	R	N	18,2		
281	5	Plant		0-1	O	AN	25		
282	5	StorageLocation		0-1	O	AN	25		Incase of multiple inventory locations ,guessing this speciofies the storage source.???
283	5	StandNumber	Stand/Gate/Bay at which the fuel was delivered	0-1	O	AN	15		Optional, but highly recommended.
284	**5**	**Equipment**	**Parent Element**	**1-unbounded**	**R**				
285	6	FuelingEquipmentID	Used to identify the fueler or dispensing vehicle ID	1	R	AN	15		Name of code of the equipment used
286	6	FuelingType	Transport Type	1	R	AN	3	Use list of codes: • HYD=Hydrant • REF=Re-Fueler Add others as required	

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
287	6	PITNumber	The hydrant pit number from which the fuel was delivered	0-1	O	AN	15		Only used if fuel type is hydrant
288	6	Operator	Identification number, code or name of person who has delivered the fuel	1	R	AN	50		Name or code of the operator
289	6	AverageFuelTemperature		1	R				
290		Attribute: TUOM (of AverageFuelTemperature)	Unit of Measure used for Temperature	1	R	AN	3	Use list of codes: • C – Celsius • F - Fahrenheit	Fahrenheit or Celsius temperature measurement
291	**6**	**DensityInformation**		1-2	**R**				
292		Attribute: DensityType (of DensityInformation)	Type of Density	1	R	AN	3	Use list of codes: • MEA – Measured • STD - Standard	Measured or Standard Density
293	7	Density	Density of Fuel.	1	O	N	18,4		Should be between 740 and 860 , 0.74 and 0.86 or 6.175 and 7.177 measured in KG/M3, KG/LT, or LB/USG respectively. Must have either density or specific gravity required.
294		Attribute: DensityUOM (of Density)	Unit of Measure used for Density	1	R	AN	3	Refer to IATA code directory Section E (UOM)	
295	7	Temperature		1	R	N	4,1		Required if Net Quantity Delivered is entered. Temperature should be between -47C and 50C or -53F and 122F.
296		Attribute: TUOM (of Temperature)	Unit of Measure used for Temperature	1	R	AN	1	Use list of codes: • C = Celsius • F = Fahrenheit	
297	**6**	**MeterReading**		1-10	R				
298		Attribute: MeterID (of Meter Reading)		1	O	AN	10		
299	7	MeterReadingStart	Starting Meter reading	1	R	N	18,6		Must be entered in meter reading ending is entered
300	7	MeterReadingEnd	Ending Meter reading	1	R	N	18,6		Must be entered in meter reading start is entered
301	7	MeterQuantityDelivered		1	R	N	18,6		Check for difference between meter reading start and meter reading end.
302		Attribute: MQDUOM (of MeterQuantityDelivered)	UOM of Quantity Delivered	1	R	AN	3	Refer to IATA code directory Section E (UOM)	? correct dimension
303	5	TotalQuantity	Sum of all meter quantity	1 - 3	R	N	18.6		Once for gross or once for Net or both

				Element Attributes					
Row	**Level**	**Structure/Element**	**Description**	**Repeat**	**Req**	**Type**	**Size**	**Value Source**	**Notes**
304		Attribute: TQDFlag (of TotalQuantity)	Identities gross or net quantity	1	R	AN	2	Use list of codes • GR=Gross • NT=Net	
305		Attribute: TQDUOM (of TotalQuantity)	Unit of Measure	1	R	AN	3	Refer to IATA code directory Section E (UOM)	Make sure it covers weight
306	**5**	**TransactionTime**		1	R				
307	6	LocalDateTimeStart	Date/Time started, must be less than Date/Time finished (YYYY-MM-DDThh:mm:ss)	1	R	DT			
308	6	LocalDateTimeFinished	Date/Time started, must be greater than Date/Time started (YYYY-MM-DDThh:mm:ss)	1	R	DT			"Ticket Date"
309	6	GMTDateTimeStart	Date/Time started, must be less than Date/Time finished (YYYY-MM-DDThh:mm:ss)	0-1	O	DT			
310	6	GMTDateTimeFinished	Date/Time started, must be greater than Date/Time started (YYYY-MM-DDThh:mm:ss)	0-1	O	DT			
311	**3**	**Summary**		1	R				
312	4	FuelTransactionLineCount	Total Line counts for tickets	1	R	N	18		Count of the FuelTransactionLine elements for a FuelTransaction
313	4	TotalFuelQuantity		1	R	N	18,6		
314	1	**FuelTransactionTransmissionSummary**		1	R				
315	2	FuelTransactionMessageCount	Count of the number of Electronic Fuel Transactions in the transmission	1	R	N	6		MinValue=1 MaxValue=100,000. This is the count of the FuelTransaction Nodes.
316	2	FuelTransactionTotalFuelQuantity	Sum of the fuel quantity of Electronic Fuel Transactions in the transmission	1	R	N	18,6		MinValue=1. this is the count of fuel quantity from all the Fuel Transaction nodes

Currency Conversion: Examples

Multi-currency support is one of the main innovations in version 3.0.0 of the Fuel Invoice Standard. New optional currency conversion elements are provided at various levels:

- CurrencyConversion
- LocalTaxCurrencyConversion
- SubTaxCurrencyConversion

The structure of a CurrencyConversion element is always :

- ConversionMechanism (Multiply or Divide)
- CurrencyFrom with attribute FactorFrom
- CurrencyTo with attribute FactorTo
- ExchangeRate

ConversionMechanism

The most common case is where the ConversionMechanish is Multiply – meaning that the amount in CurrencyFrom needs to be multiplied by the ExchangeRate to calculate the amount in CurrencyTo.

Example:

Conversion from EUR to GBP where 1 EUR : 1 GBP = 0.677799
would be modeled as follows:

```
<CurrencyConversion>
        <ConversionMechanism>M</ConversionMechanism>
        <CurrencyFrom FactorFrom=”1”>EUR</CurrencyFrom>
        <CurrencyTo FactorTo=”1”>GBP</CurrencyTo>
        <ExchangeRate>0.677799</ExchangeRate>
</CurrencyConversion>
```

An ExchangeRate may be used inversely by setting the ConversionMechanism to Divide. In this case the amount in CurrencyFrom needs to be divided by the ExchangeRate to calculate the amount in CurrencyTo.

Example:

Conversion from EUR to GBP where 1 GBP : 1 EUR = 1.47536
would be modeled as follows:

```
<CurrencyConversion>
        <ConversionMechanism>D</ConversionMechanism>
        <CurrencyFrom FactorFrom=”1”>EUR</CurrencyFrom>
        <CurrencyTo FactorTo=”1”>GBP</CurrencyTo>
        <ExchangeRate>1.47536</ExchangeRate>
</CurrencyConversion>
```

FactorTo and FactorFrom

In some cases, where the value of one currency is very low compared to the other currency, a multiplication factor may be added.

Example:

Conversion from CLP to USD where 100 CLP : 1 USD = 0.190585
would be modeled as follows:

```
<CurrencyConversion>
        <ConversionMechanism>M</ConversionMechanism>
        <CurrencyFrom FactorFrom=”100”>CLP</CurrencyFrom>
        <CurrencyTo FactorTo=”1”>USD</CurrencyTo>
        <ExchangeRate>0.190585</ExchangeRate>
</CurrencyConversion>
```

Although less common, a multiplication factor other than 1 could also be provided for the CurrencyTo.

Example:

Conversion from USD to CLP where 1 USD : 100 CLP = 5.24700
would be modeled as follows:

```
<CurrencyConversion>
        <ConversionMechanism>M</ConversionMechanism>
        <CurrencyFrom FactorFrom=”1”>USD</CurrencyFrom>
        <CurrencyTo FactorTo=”100”>CLP</CurrencyTo>
        <ExchangeRate>5.24700</ExchangeRate>
</CurrencyConversion>
```

Currency Conversion formulas

To convert an amount in CurrencyFrom to an amount in CurrencyTo, the following rules apply:

If the ConversionMechanism is multiply then use the following formula:

amount in CurrencyTo = (amount in CurrencyFrom / FactorFrom) x (ExchangeRate x FactorTo)

(2) If the ConversionMechanism is divide then use the following formula:

amount in CurrencyTo = (amount in CurrencyFrom / FactorFrom) / (ExchangeRate / FactorTo)

Examples of how to use the currency conversion formulas:

Assume that 1 CLP : 1 USD = 0.00190585 and consequently 1 USD : 1 CLP = 524.70

Conversion from CLP to USD where 100 CLP : 1 USD = 0.190585
could be modeled using the Multiply conversion mechanism as follows:

```
<CurrencyConversion>
        <ConversionMechanism>M</ConversionMechanism>
        <CurrencyFrom FactorFrom=”100”>CLP</CurrencyFrom>
        <CurrencyTo FactorTo=”1”>USD</CurrencyTo>
        <ExchangeRate>0.190585</ExchangeRate>
</CurrencyConversion>
```

To convert 500 CLP to USD:

(500 CLP / 100) x (0.190585 x 1) = 0.95 USD

Conversion from CLP to USD where 1 USD : 100 CLP = 5.24700
could be modeled using the Divide conversion mechanism as follows:

```
<CurrencyConversion>
        <ConversionMechanism>D</ConversionMechanism>
        <CurrencyFrom FactorFrom=”100”>CLP</CurrencyFrom>
        <CurrencyTo FactorTo=”1”>USD</CurrencyTo>
        <ExchangeRate>5,24700</ExchangeRate>
</CurrencyConversion>
```

To convert 500 CLP to USD:

(500 CLP / 100) / (5.24700 / 1) = 0.95 USD