



ICEDIS New Order Message Format Overview

DRAFT Version 0.11

June 2014

Incorporating changes arising during schema generation and internal review

Please note that this document is a working draft.
EDItEUR invites comments on this specification and the associated XML schema. Please send comments, suggestions for improvement or questions to info@editeur.org.

Changes in versions 0.025, 0.1 and 0.11:

This version incorporates a series of changes and improvements arising from an internal EDItEUR review during schema generation and subsequent revision:

- A paragraph has been added in Section 1 to explain the perceived shortcomings of the ICEDIS legacy ORT standard, both in supporting more recent business models and in terms of its technical structure.
- Transfers of existing subscriptions between agents, and also orders that are moving from “direct” to “agent managed” arrangements, have been included in scope, as discussed. An explanatory paragraph has been included in Section 3.
- A paragraph has been added in Section 3 to address the topics of e-activation details and licenses. In both cases it is stressed that only those e-activation or license details needed to support the processing of the order are to be carried in the New Order message itself.
- Several essentially editorial changes have been made to improve the text.
- The <Organization> and <Person> composites that make up the Structured Name & Address model have been included at various points within the message structure, specifically these:
 - Within the <Sender> and <Addressee> composites in the message Header;
 - Within the <PreviousAgent> composite in <TransferDetails>;
 - Within the <CustomerDetails>, <ShippingNameAndAddress> and <BillingNameAndAddress> composites;

- Within the <Publisher> and <OnlinePublisher> composites in <SubscriptionProduct>.
- It has been made clear that either the <Person> or the <Organization> composites from the Structured Name & Address model but not both may be used in each context within the message. Cardinalities for these composites have been adjusted accordingly.
- <TransferInformation> has been renamed to <TransferDetails>, for consistency with other nomenclature.
- The <TransferDetails> composite has been moved to a more intuitive position, immediately after <OrderDetails>.
- The <SubscriptionProduct> composite has been moved into a more intuitive position within the message, immediately after <OrderDetails> and the (optional) <TransferDetails> composite.
- Definitions surrounding payments in the descriptions of the <PaymentAmount> and <Summary> composites have been improved and a simpler/more intuitive structure has been proposed to correlate payment instruments and orders lines.
- A significantly updated and extended structure has been proposed for IP addresses, within the <CustomerIP> composite. This now caters for both IPv4 and IPv6 address types, as well as for single addresses, networks or ranges of addresses
- The element <PaymentDate> has been renamed to <PaymentInstrumentDate>. In other words, this element now conveys the date associated with a payment instrument, such as a check, rather than the date on which the payment is made.
- A link has been added within the text to a small set of sample files now available.
- The <ActivationDetails> composite is now repeatable, to support scenarios in which the same product may be available either via multiple content hosting systems or multiple authentication methods, or both.
- The element <CurrencyCode> within the <TotalPrice composite has been corrected so that it is now mandatory but not repeatable, since a single order line can only be associated with one currency.
- Within the <SubscriptionProduct> composite, the <Publisher> composite has been made repeatable and the associated <PublishingRoleCode> now uses values from codelist 45C – including codes for publisher, co-publisher, published for/on behalf of, and published in association with. These changes have been made to support scenarios where the “publisher” does not necessarily have sole ownership of the product in question.

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EDItEUR is the international group that coordinates the development and promotion of standards for electronic commerce in the books and serials sectors.

1. Introduction

This document describes the ICEDIS New Order message, developed by EDItEUR in conjunction with a specialist Working Group of ICEDIS, the International Committee on EDI for Serials. The message provides a structured means of communicating orders for subscription products, in the first instance between subscription agents, distributors and publishers. The message is expressed in XML and has been developed within the evolving framework of the EDItX family of transactional standards.

The objective is to support automated, machine-to-machine communication and ordering. Numerous mechanisms are currently used in the subscriptions sector, but most involve a greater or lesser degree of manual intervention, resulting in additional costs, delays and the possibility of human error in the process. The particular focus of the present work is to enable automatic processing of new (rather than renewal) orders, but it is recognized that a large number of the data elements involved could, in future, be re-used for other related types of transactions.

The ICEDIS Order, Renewal & Transfer legacy format is widely used to convey new orders (as well as renewals). However, this format was designed many years ago and lacks structures to support business models that have developed since then, most notably the wide proliferation of online resources, journal packages, and negotiated prices. In addition, the "ORT" format predates the advent of XML formats and therefore does not support nested data nor variations in repeatability. The New Order format has been developed to overcome these shortcomings.

2. Related documents

The formal definition of the New Order message format is given in an XML schema and associated code lists, provided as a zipped file here [\[link to be inserted\]](#).

Permissible values for coded elements are found in [ONIX Serials Code Lists](#).

The Structured Name Address model is documented in [ONIX Structured Name & Address Model: Format Overview](#).

The ONIX for Serials Coverage Statement is documented in [ONIX for Serials: Coverage Statement](#).

Sample files illustrating several cases are available [here](#).

3. Use case scenarios envisaged

A number of scenarios for which the New Order message could be used have been identified by the ICEDIS Working Group. The following (non-exhaustive) list represents the more important scenarios currently in scope:

- New orders from agents or distributors to publishers.
- Orders involving shipping of physical products directly to the end customer.
- Orders involving consolidation arrangements, where shipping is to a nominated intermediary location.
- As part of the message structure, communication of end-customer details, especially where a consolidation arrangement is in place.
- Orders for online products hosted by a publisher.
- Orders for online products hosted by platforms or hosting agencies separate from the publisher.
- Orders for products owned or sponsored by learned societies, whether self-published or published by a separate organization.
- As part of the message structure, communication of online e-access details or credentials.
- New orders resulting from a negotiation and/or quotation process.

Renewal orders have been explicitly excluded from scope in this phase of message development. This is the most significant exclusion from the current work, bearing in mind the high proportion of renewal (vs. new) orders in the total workload. Current arrangements for renewals using the ORT legacy format are widely implemented, semi-automated and broadly perceived to be satisfactory at present, at least for “traditional” and largely print-based subscription products.

Transfers of existing subscriptions between agents have however been included in the current phase, since their requirements, and thus the message payload, are as almost identical with those of new orders. Also in scope are subscription orders that were previously direct (with the customer purchasing directly from the agent) but that have subsequently been taken over and managed by an agent at the customer’s request.

Finally, it is worth mentioning the topics of e-activation details and of licensing, both critical in terms of placing orders for online products. The approach taken here has been to include only those e-activation or license details that are needed for effective and prompt processing of the order. It is not the intention to use the New Order format itself as a primary vehicle for conveying e-activation instructions, e.g. to a hosting platform, nor as a way of communicating the exhaustive details of particular licensing agreements. Both of these purposes are likely to be better served by dedicated message formats, which may be addressed in separate projects.

However, if individual pairs of business partners choose to use the message to request activation directly, there is no objection.

4. Product types in scope

The New Order message is intended to convey orders for subscription products; that is, products that are priced and paid for in advance and on a recurring basis.

Products or services regarded as in scope are all variants of subscription product:

- Subscription products that consist of a single component or title; e.g. “traditional” print or online journals.
- Packages consisting of a number of components or titles, whether catalog listed packages or bespoke packages resulting from negotiated sales. The packages may contain a variety of product types and formats: print journals, online journals, databases, e-books, etc.
- e-Books and e-book packages, database services, etc., where these are sold on a subscription basis.
- Access/hosting/maintenance fees for online products, where the fees themselves are billed regularly.
- Backfile or archival online offerings, where these have a subscription character (specifically, where they only remain available to the customer on payment of a recurring subscription fee).

It is as yet undecided as to whether backfile or archival online offerings purchased outright should be in or out of scope. Strictly speaking, these are not subscription products. However, such products are frequently sold alongside subscription backfiles for the same titles, and by the same publishers or agents, which may argue for their inclusion.

The following product types are considered currently out of scope:

- Single-issue sales, because single issues are not themselves subscription products. These transactions more closely resemble book or e-book EDI arrangements.
- Standing orders, published irregularly on an open-ended arrangement, with product only actually purchased as each volume or unit appears.

Apart from the general categories identified above, business partners should always discuss and agree explicitly which products or product types will be ordered using this mechanism.

5. A common framework for other transaction types

As mentioned in the Introduction, the data elements required to support New Order communications are also largely shared with those needed for a series of related transactions. The current focus remains firmly on those scenarios described in Section 3 above. However, it is envisaged that over time the framework presented here could be relatively straightforwardly adapted or extended to support the following types of transactions:

- An order response, acknowledging the receipt of incoming orders, advising on the status of the order and providing a mechanism to exchange or update identifiers.
- Order cancellation.
- Order reinstatement.
- Renewals orders.
- Changes in physical addresses or online credentials for existing subscriptions.
- Transfers of titles on order, from one publisher to another.

6. Message format and structure

The message format is outlined in structure tables found at the end of this document.

The basic structural unit is the Order Transaction, a single order line for one subscription product for one end customer. Each Order Transaction is complete in itself, resulting in a deliberately “flat” structure. There is no grouping of transactions within the message by customer, product, payment instrument or any other parameter. This arrangement is intentional and is designed in keeping with current practice for transaction processing, particularly in a web services environment.

The basic structure can be summarized as follows:

A **Header**, including details of the message sender and recipient, plus various housekeeping details such as message number and date/time stamp for message tracking purposes

One or more **Order Transactions**, each containing

- Order details (Order identifiers, subscription period, quantity ordered, etc)
- Transfer details, for use when an order has been transferred from another agent
- Information about the subscription product that is being ordered
- Payment amount remitted for the order
- Details of the payment instrument used in remitting payment
- Customer details (information about the end customer)
- Activation details – for those cases where the recipient performs activation of an online subscription
- License details – enough information about the customer’s license agreement that the supplier can activate an online subscription
- Shipping name and address, where physical components are to be shipped
- Billing name and address that are to be invoiced by the supplier.

A **Summary** of the order transactions included in the message, which can be used for integrity checking during message formulation and ingest as well as cross-checking whether all the payments and orders were processed correctly.

7. About names, addresses & party identifiers

A key aspect of the New Orders initiative has been the requirement to make available a way of conveying structured name and address information, rather than the free form and unstructured records frequently encountered at present. The objective here is to facilitate greater accuracy and easier matching, resulting in a greater degree of process automation.

A parallel ICEDIS Working Group is considering this topic and, together with EDItEUR, producing recommendations for a Structured Name & Address model, supplemented by greater use of standard party identifiers. Using the outputs of this initiative, the New Order message

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uses the Structured Name & Address model wherever it is necessary to identify or communicate name and address data about any of the parties involved in the ordering process (such as agents, distributors, consolidators, end customers, etc.).

The Structured Name & Address model is itself documented [here](#).

Overview of the structure of the ICEDIS New Order Message format

The tables on the following pages give an overview of the ICEDIS New Order Message format, and show how elements are nested. For elements that contain coded values, please refer to [ONIX Serials Code Lists](#).

Line numbers are shown in the left-hand column, purely for ease of reference. These are followed by the relevant element names and structures; every effort has been made to choose self-explanatory element names, but a full description or explanation is presented for each one. Standardized and controlled code lists are used extensively to ensure shared understanding of the terms or options involved. The final, right-hand column specifies the cardinality of each element, with the following meanings:

- | | |
|-----|---|
| 1 | Mandatory within its parent, not repeatable within its parent |
| 0-1 | Optional, not repeatable within its parent |
| 1-n | Mandatory within its parent, repeatable within its parent |
| 0-n | Optional, repeatable within its parent |

ICEDIS New Order Message

1	<ICEDISNewOrder version="0.11">			A list of subscription orders	1
2	<Header>			Message header	1
3	<Sender>			The sender of the message. It is assumed that any confirmation messages will be sent to this party. Must include either <Organization> or <Person> but not both. In regular commercial operation, it is likely that <Organization> will usually be the option chosen.	1
4		<Organization>		Composite: Identification and description and communication details of the organization sending the message. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
5		<Person>		Composite: Identification, description and communication details of the contact person at the sender organization. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
6	<Addressee>			The addressee of the message. It is assumed that any confirmation messages will be sent to this party. Must include either <Organization> or <Person> but not both. In regular commercial operation, it is likely that <Organization> will usually be the option chosen.	1
7		<Organization>		Composite: Identification and description and communication details of the organization to whom the message is addressed. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
8		<Person>		Composite: Identification, description and communication details of the contact person at the organization to whom the message is addressed. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
9	<MessageNumber>			Message sequence number	0-1
10	<MessageRepeat>			A number which distinguishes any repeat transmissions of a message	0-1
11	<SentDateTime>			The date, and optionally the time, when a message was sent	1
12	<MessageNote>			A free-text note about the contents of the message..	0-1
13	<OrderTransaction>			A single order line for one subscription product for one customer. Repeatable for multiple orders.	1-n
14	<TransactionID>			TransactionID, unique within this message, assigned by the Sender.	1

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15	<OrderDetails>			A single order line. Must include at least one (or more) instances of <OrderIdentifier> and either <SubscriptionPeriod> or <SubscriptionTerm>, but not both.	1
16		<OrderIdentifier>		A coded identifier of the order. Repeatable for multiple OrderIDTypes	1-n
17			<OrderIDType>	A code indicating the scheme from which the identifier is taken (see code list 111 for permissible values)	1
18			<IDTypeName>	The name of a proprietary scheme, if applicable	0-1
19			<IDValue>	The identifier value, from the specified scheme	1
20		<SubscriptionPeriod>		The specific period of time during which this order is active. Used for fixed subscription periods. Either <SubscriptionPeriod> or <SubscriptionTerm> must appear.	0-1
21			<StartDate>	Start of the subscription period, always in the form YYYYMMDD	1
22			<EndDate>	End of the subscription period, always in the form YYYYMMDD	1
23		<SubscriptionTerm>		Duration of subscription, used for anytime starts. Composite, including unit of measurement (e.g.releases, weeks, months, years), and number of units.	0-1
24			<CountUnit>	Unit of measurement. See code list 108 for permissible values: <ul style="list-style-type: none"> • Releases (issues) • Days • Weeks • Months • Years 	1
25			<Count>	Number of units to count	1
26		<SubscriptionPeriod Coverage>		Details of the content that is to be released during the subscription period. The Enumeration and Nominal Date composites are extracted from the ONIX <Coverage> composite, which is documented separately here . Only used for products that contain only one title (i.e. not for packages whose components would have varying enumerations and chronology). Either StartEnumeration and EndEnumeration or StartNominalDate and EndNominalDate must appear.	0-1
27			<StartEnumeration>	Enumeration of first release in the subscription period. See expansion of <Enumeration> below.	0-1
28			<EndEnumeration>	Enumeration of last release in the subscription period. See expansion of <Enumeration> below.	0-1

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29	<TransferDetails>	<StartNominalDate>	<StartNominalDate>	Cover date of first release in the subscription period. See expansion of <NominalDate> below.	0-1
30			<EndNominalDate>	Cover date of last release in the subscription period. See expansion of <NominalDate> below.	0-1
31		<QuantityOrdered>		Number of copies of physical material to be supplied. If no quantity is specified, "1" is assumed.	0-1
32				Information about the previous subscription agent that handled this subscription product, only used if the order is a transfer from another agent or if the order was previously managed directly by the customer. <TransferInformation> must include either <DirectOrder/> or <PreviousAgent>, but not both.	0-1
33		<DirectOrder/>		Flag indicating that the order was previously managed directly by the customer with no agent involved.	0-1
34		<PreviousAgent>		Subscription agent that previously handled the order. Omit if order was previously direct by customer to publisher. Must include either <Organization> or <Person> but not both. In regular commercial operation, it is likely that <Organization> will usually be the option chosen.	0-1
35			<Organization>	Composite: Identification and description and communication details of the previous agent. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
36			<Person>	Composite: Identification, description and communication details of the contact person at the previous agent. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
37		<PreviousOrder Identifier>		Identifier(s) of the order under the previous agent. Should include the previous agent's order identifier and the publisher's order identifier, if available.	0-n
38			<OrderIDType>	A code indicating the scheme from which the identifier is taken (see code list 111A for permissible values)	1
39			<IDTypeName>	The name of a proprietary scheme, if applicable	0-1
40			<IDValue>	The identifier value, from the specified scheme	1
41		<SubscriptionProduct>			The subscription product being ordered. Must contain at least one instance of <SubscriptionProductIdentifier> or a <SubscriptionProductName> or both. Optionally may also contain a

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				<SubscriptionProductDescription>.	
42		<SubscriptionProductIdentifier>		A coded identifier of a subscription product, eg a publisher's product code. Repeatable if multiple identifiers are sent: for example, one repeat of this composite could convey the supplier's product code whilst another repeat could convey an agent's code for the same product.	0-n
43			<SubscriptionProductIDType>	A code indicating the scheme from which the identifier is taken. See code list 4S for permissible values. To date, only the value "01" = "proprietary" has been included, since no public subscription product identifier is yet available.	1
44			<IDTypeName>	The name of a proprietary scheme, if applicable	0-1
45			<IDValue>	The identifier value	1
46		<SubscriptionProductName>		The name of a subscription product.	0-1
47		<SubscriptionProductDescription>		Additional free text description of a serial product	0-1
48		<Publisher>		Publisher of the subscription product. Repeatable if the publisher is assuming more than one role in relation to this subscription product.	1-n
49			<PublishingRole>	A code indicating a role played in the publishing process (see code list 45C).	1
50			<Organization>	Composite: Identification, description and communication details of the publisher. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	1
51		<OnlinePublisher>		Organization that operates the content hosting system through which all online components in this product are available. Used only when all online product components are available through a single content hosting system.	0-1
52			<PublishingRole>	A code indicating the role of the online publisher. Code list 45A, value 05 (host/distributor of electronic content) is the only permissible value here.	1
53			<Organization>	Composite: Identification and description and communication details of the online publisher. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	1
54	<PaymentAmount>			Composite: currency and amount remitted for this order line. Also includes criteria used for determining amount of payment. The payment	1

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				amount for the order should be the total for all copies, if <QuantityOrdered> is greater than 1. See expansion in yellow at the end of this document.	
55	<PaymentInstrument>			Information about the payment instrument (check, credit card, etc.) used to transmit payment for this order. Note that multiple orders may be covered by the same payment instrument.	1
56		<PaymentInstrument Identifier>		Identification of a payment instrument	1
57			<PaymentInstrument IDType>	The type of payment instrument identifier used (see code list 182S).	1
58		<IDValue>	The identifier value, from the specified scheme	1	
59		<PaymentInstrumentDate>		Date of the payment, always in format YYYYMMDD. May be omitted in the case of an open or credit account.	0-1
60	<CustomerDetails>			Details of the end customer. Must include either <Organization> or <Person> but not both.	1
61		<Organization>		Composite: Identification and description and communication details of the end customer organization. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
62		<Person>		Composite: Identification, description and communication details of the contact person at the end customer organization. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
63	<ActivationDetails>			Information needed to activate online components of the product. Should include at least one (or more) elements from those listed below, subject to the constraints (if any) described for each element. But given that all the elements are formally optional, an empty <ActivationDetails> composite should be interpreted in the same way as if the composite were absent.	0-n
64		<ContentHosting System Details>		Information about content hosting system where access is to be activated. Repeatable if access is to be activated via multiple content hosting systems.	0-n
65			<ContentHostingSystem>	Name of the system that hosts the content	1
66			<AccessCode>	Code used for registering access for this customer	0-1

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67		<WebsiteLink>	The URL of a website for registering access	0-1	
68		<Authentication Method>	Authentication method preferred by customer, such as IP recognition or username and password. See code list 210 for permissible values.	0-1	
69		<CustomerIP>	IP addresses to be used in activating an order. See expansion at the end of this document. Only appears if IP recognition is selected as the <AuthenticationMethod>	0-1	
70		<ProxyServer/>	A flag indicating that customer uses a proxy server	0-1	
71		<SingleSignOn/>	A flag indicating that customer uses a single sign-on method (e.g., Athens. Shibboleth)	0-1	
72		<AdministratorEmail>	Email of end customer's online resource administrator	0-1	
73	<License>		Information about license under which this order is to be fulfilled. Used only with products that contain an online component.	0-1	
74		<LicenseIdentifier>	Coded identifier of <i>signed license</i> under which this order is to be fulfilled.	0-n	
75			<LicenseIDType>	A code indicating the scheme from which the identifier is taken. See code list 211 for permissible values.	1
76			<IDTypeName>	The name of a proprietary scheme, if applicable	0-1
77			<IDValue>	The identifier value, from the specified scheme	1
78			<LicenseType>	Type of license. See code list 212 for permissible values.	1
79		<LicenseStatus>	Status of negotiated licenses. Used only when <LicenseType> is "Negotiated." See code list 213 for permissible values.	0-1	
80	<ShippingNameAnd Address>		Composite: name and address where physical materials in the order are to be shipped. Must include either <Organization> or <Person> but not both. For drop shipments, this will be the customer's end address. For consolidated shipments this will be the address of the organization providing the consolidation (usually a subscription agent).	0-1	
81		<Organization>	Composite: Identification and description and communication details of the organization to which physical materials are to be shipped. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1	
82		<Person>	Composite: Identification, description and communication details of the contact person at the organization to which physical materials are to be	0-1	

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				shipped. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	
83	<BillingNameAndAddress>			Name and address that is to be invoiced by the supplier (usually a subscription agent). Must include either <Organization> or <Person> but not both. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
84		<Organization>		Composite: Identification and description and communication details of the organization that is to be invoiced. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
85		<Person>		Composite: Identification, description and communication details of the contact person at the organization that is to be invoiced. This composite is documented in the Structured Name & Address model (http://www.editeur.org/138/Structured-Name-and-Address-Model/)	0-1
86	<Summary>			Summary of transactions in this message, used as an integrity check in creating and processing the message.	1
87	<TotalOrders>			Total number of order lines in the message	1
88	<TotalCopies>			Total number of copies ordered in the message	1
89	<AmountRemitted>			Amount remitted for the order lines in the message, by currency. One repetition for each currency represented in the message.	1-n
90		<CurrencyCode>		ISO 4217 currency code. See code list 96	1
91		<Amount>		Total of all the payment amounts for orders in the message using the currency.	1
92	<PaymentDetails>			Details of payments remitted in the message, by payment instrument. One repetition for each payment instrument represented in the message.	1-n
93		<CurrencyCode>		ISO 4217 currency code. See code list 96	1
94		<Amount>		Total of all the payment amounts for orders in the message covered by this payment instrument.	1
95		<PaymentInstrument Identifier>		Identification of a payment instrument (check, credit card, etc.)	1
96			<PaymentInstrument IDType>	The type of payment instrument identifier used (see code list 182S).	1

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97			<IDValue>	The identifier value, from the specified scheme	1
98		<TransactionReference >		Repeatable for each order line covered by the payment instrument. Effectively, the "content" of each repeat will be the value of the relevant TransactionID.	1-n

Expansion of <PaymentAmount> composite

1	<PaymentAmount>			Payment amount for an order line. The amount remitted should be the total for all copies, if <QuantityOrdered> is greater than 1. <PaymentAmount> may include <PriceQualifier> or <PriceTier>, or both, or neither. <PaymentAmount> must include <TotalPrice>. <PriceQualifier> and <PriceTier> show how the payment amount was determined. <TotalPrice> shows the amount remitted, broken out into its components.	1	
2	<PriceQualifier>			A criterion that applies to a price. If multiple qualifiers apply to a price, then <PriceQualifier> is repeated. If there is only one price, and it is not qualified in any way, then <PriceQualifier> is omitted.	0-n	
3		<PriceQualifierType>		A code specifying the type of qualifier. See code list 136 for permissible values, including PromotionalCode and ContractID.	1	
4		<PriceQualifierValue>		A coded value for the specified price qualifier type. Each price qualifier type has its own list of permissible values; some, such as price tier, allow proprietary values. Permissible values: see code list 137.	1	
5	<PriceTier>			A price criterion that can be expressed as a range of values.	0-1	
6		<PriceTierUnit>		The unit of measurement used to define a tier; e.g. total FTE, number of beds, number of simultaneous users. See code list 185S for permissible values.	1	
7		<PriceTierFromValue>		The lower bound of the tier; usually but not necessarily an integer.	1	
8		<PriceTierToValue>		The upper bound of the tier; usually but not necessarily an integer.	1	
9	<TotalPrice>			Total amount remitted for the order line.	1	
10		<CurrencyCode>		The currency in which the payment is being remitted to the supplier (ISO 4217 currency codes, see code list 96S). All components of a price are expressed in the same currency.	1	
11		<PriceComponent>			A component of the total price, repeatable if there are multiple components	1-n
12			<PriceComponentType>		A code specifying the type of the price component. See code list 112S for permissible values.	1
13			<PriceComponentDescription>		A free text description qualifying the price component.	0-1
14			<ShippingMethod>		A code specifying the shipping method if the price component includes shipping. See code list 114S for permissible values.	0-1

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15			<PriceAmount>	The amount of the price component. Always sent as a positive number or zero. The PriceComponentType code indicates whether the amount is a charge or a discount. Either <PriceAmount> or <Rate> or both must be present within <PriceComponent>.	0-1
16			<Rate>	A percent of the base price. Used only for price components that may be expressed as a rate. Percent sign is not included. Either <PriceAmount> or <Rate> or both must be present within <PriceComponent>.	0-1
17	<PriceNote>			A free text note clarifying the price.	0-1

Expansion of composite <Enumeration> (used in <StartEnumeration> and <EndEnumeration>)

1	<Enumeration>			The enumeration of a release.
2		<Level <i>n</i> >		Where n = 1 to 6. This set of composites carries the primary enumeration of a normal release (ie a release other than a supplement or index), in descending hierarchical order, always starting with <Level1>. Where the enumeration hierarchy is a mixture of numbers and date fragments (eg a combination of year and issue number), the date fragments should appear <i>both</i> in the enumeration <i>and</i> in the <NominalDate> composite. Where the release is identified by date only, with no enumeration, only the <NominalDate> composite is sent.
3			<Unit>	Enumeration unit stated on the piece: name in full. Optional, but strongly recommended whenever applicable; must be accompanied by <Number>. <i>Has "language" attribute.</i>
4			<ImpliedUnit>	Enumeration unit not named on the piece, eg Year when the year is used as the volume number. Optional, but strongly recommended whenever applicable; must be accompanied by <Number>. <Unit> and <ImpliedUnit> are mutually exclusive elements. <i>Has "language" attribute.</i>
5			<UnitAbbr>	<p>Composite: An abbreviated form of the name of the enumeration unit. May be used in addition to <Unit> or <ImpliedUnit>, or in place of either of them. Must be accompanied by <Number>. The intention is that publishers who originate coverage statements will be asked to send unit names in full. It will be open to libraries or intermediaries to add their locally preferred abbreviated form if so desired.</p> <p>Contains the following elements:</p> <ul style="list-style-type: none"> <UnitAbbrType> - a code for the source of the abbreviation; e.g. AACR2, ISO, proprietary (see code list 116S for permissible values). <AbbrTypeName> - if <AbbrType> is "proprietary," the name of the source of the abbreviation. <Abbreviation> - the abbreviation itself; e.g. "Vol." <i>Has "language" attribute.</i> <p>Optional.</p>

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6			<Number>	Any numeric or alphanumeric string that is assigned so as to specify a sequence of enumeration units. Either <Number> or <NamedUnit>, but not both, must be present in any instance of a <Leveln> composite. Attributes are used in this element to specify the form of the number – see Introduction, section 13.	
7			<NamedUnit>	Text naming a unit in the enumeration hierarchy that has no associated sequence numbering. Used, for example, for New Series or its equivalent; or in some music or legal publications where one level of the enumeration hierarchy identifies an instrument, or a particular piece of legislation. (Care should be taken to use NamedUnit and not <Unit> and <Number> if a number appears that does not relate to a sequence of serial parts. For example “Title 42,” referring to a piece of legislation, is a <NamedUnit>). If <NamedUnit> is present, then <Number> cannot be present. <i>Has “language” attribute.</i>	
8		<Enumeration Note>		A free text note clarifying the enumeration. <i>Has “language” attribute.</i>	
9		<Additional Enumeration>		Additional or alternative enumeration applied to the release, if any. Note that this composite should be used only when there is additional enumeration <i>within</i> the serial version of which the release is a part. There are occasions where an item is treated as belonging simultaneously to two distinct serial versions, each having its own title. In such cases, enumeration under Serial Version A should <i>not</i> be treated as alternative enumeration under Serial Version B.	
10			<Leveln>	Composites <Level1> to <Level6>, for any additional enumeration.	
11			<Enumeration Note>	A free text note clarifying the enumeration. <i>Has “language” attribute.</i>	

Expansion of composite <NominalDate> (used in <StartNominalDate> and <EndNominalDate>)

1	<NominalDate>			The “cover date” of a release: repeatable if the date is given under more than one calendar, eg Hebrew and Gregorian.	
2		<Calendar>		A code specifying the calendar (see code list 110S for permissible values).	1
3		<DateFormat>		A code indicating a date format (see code list 55S for permissible values)	1
4		<Date>		A date, or spread ¹ of dates, in the specified format.	1

¹ A “spread” of dates is used only when the chronology of a single issue is expressed in this form, eg “1 to 15 December 2004”, “Jan-Feb 2005”, “Spring-Summer 2005”. It is NOT used to express the chronology of a range of issues.

Expansion of composite <CustomerIP>

1	<CustomerIP>		Must include one or more of any of the following elements	
2		<IPv4Address>	A single, fully-qualified IP address in the IPv4 address space	0-n
3		<IPv6Address>	A single, fully-qualified IP address in the IPv6 address space	0-n
4		<IPv4Network>	An IP address pattern with CIDR suffix between 1 and 32, indicating the IPv4 network address range. The IP address pattern must be consistent with the suffix. See IETF RFC 4632. For a slightly clearer exposition see http://en.wikipedia.org/wiki/CIDR_notation#CIDR_notation	0-n
5		<IPv6Network>	An IP address pattern with CIDR suffix between 1 and 128, indicating the IPv6 network address range. The IP address pattern must be consistent with the suffix.	0-n
6		<IPv4Range>	A range of IPv4 addresses	0-n
7		<IPv4RangeStart>	First IPv4 address in range – a single, fully-qualified IP address in the IPv4 address space	1
8		<IPv4RangeEnd>	Last IPv4 address in range – a single, fully-qualified IP address in the IPv4 address space	1
9		<IPv6Range>	A range of IPv6 addresses	0-n
10		<IPv6RangeStart>	First IPv6 address in range – a single, fully-qualified IP address in the IPv6 address space	1
11		<IPv6RangeEnd>	Last IPv6 address in range – a single, fully-qualified IP address in the IPv6 address space	1