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Appendix G VALUATION SUBMISSION THROUGH XML DOCUMENT (REPORTING)

A user submits valuation requests in a valuation request file. The request file should be a well-formed XML document that conforms to a HKTR-R system's specific XML Schema.

In response, an XML-encoded document will be returned to the user.

The HKTR-R system uses FpML which is an XML standard for representing financial products. The system currently uses FpML v5.5 (reporting view) for the valuation reporting service. Note that different from trade reporting service, FpML v5.2 and v5.7 is not currently supported in valuation reporting service.

For further information on syntactical requirements of FpML / XML (e.g. case sensitiveness requirement on element tags, etc.), please refer to the following web sites for detailed specification:

- FpML official web site: <http://www.fpml.org>
- XML official web site: <http://www.w3.org/XML>

G.1 Types of Valuation Requests

Through the use of FpML, users can make valuation requests supported by the HKTR-R system in reporting views, which includes:

- Add or modify a valuation record on a particular valuation date
- Delete a valuation record previously submitted for a particular valuation date

G.2 Types of Trade Event Responses

G.2.1 Detail Level Response

After processing all the requests in the request file, the system will collect the results of each request and format a corresponding response record.

For reporting purpose, the typical response is:

- Report acknowledgement
- Report exception

G.2.2 Document Level Exception

If a severe error occurs (e.g. the whole XML document is not well-formed) such that the system cannot correctly interpret the individual trade event requests, the request file will be rejected as a whole and the system will not process the

individual trade event requests.

G.3 Convention of XML Document Layout Description

An XML request or response document consists of XML blocks which derives from standard FpML specifications.

This document will provide detailed layout on component basis for better readability.

G.3.1 FpML diagrams

For each detailed layout of an XML component, a high-level hierarchical structure diagram will be presented first. Although there are situations where the cardinality of individual element will be restricted according to the business requirement, the cardinality of the elements shown in the diagram still follows the FpML standard instead of the custom restricted cardinality. In our system design, the restricted cardinality validation will be enforced by validation logic instead of the XSD schema validation.

In the diagrams, there are elements that are supported by FpML but are being crossed out. These are the elements that are not supported by our system, and **would be ignored if any of these elements are found in the request message.**

G.3.2 Field specifications

Following the diagram, a detailed table with the following information will be presented to the user:

- **Field reference number**

A reference number merely for easy referencing.

- **Field location**

The path of the element in the FpML document in XPath format (usually relative to a particular element in the document).

- **Field name**

The name of the element. If the field name belongs to the namespace of the HKTR-R system, the field name will be qualified with a “trdoc:” (for request / response document headers) or “tr:” (within individual trade request) prefix. If no namespace prefixing the field name, user can assume that the field belongs to the FpML name space.

If the name is prefixed with a ‘@’ character, it is (one of) the attributes of the element in the previous row.

As required by the XML (FpML) standard, the field names (i.e. element tags in XML document) are case sensitive.

- **Data Type**

Data type will be provided if the element is an elementary data item.

The data type is presented with XML data type name. For example, a decimal type elementary data field is presented with format string as “xsd:decimal”.

For string fields, if there is a restriction of length, a maximum length quoted inside a pair of parenthesis is shown. For example, a normalized string with a maximum of 255 characters is presented in the form of “xsd:normalizedString (255)”.

Note also that for string fields, empty string input (i.e. through the use of empty XML tag) is allowed. However, the system will regard the field as a null input and behave as if the field is not present in the input document.

For decimal fields, the number of digits in its integral part and its decimal part are specified inside a pair of parenthesis, separated by a comma. For example, the type “xsd:decimal (15,4)” indicates that the decimal value should have at most 15 digits in its integral part, and at most 4 digits in its decimal part.

For date fields (i.e. fields of type xsd:date / xsd:dateTime), the year value of the date should not exceed 9999. In other words, date value such as “10000-01-01” (in “year-month-day” format) is not allowed.

For enumerated types and coding scheme, please refer to Appendix F (Reporting – Ref – Enumerations and coding schemes.xlsx) for a list of eligible values of respective type.

- **Description**

A brief description about the meaning and usage of the element.

For the full details, please refer to the specification of FpML 5.5 recommendation:

<http://www.fpml.org/spec/fpml-5-5-8-rec-2/>

- **Usage Rule**

Generally speaking, the HKTR-R system interprets a field according to the FpML standard but sometimes it may impose its own processing rule or interpretation. Wherever appropriate, customized rule for a particular field will be specified in this field description.

- **Cardinality**

The number of occurrence an element is allowed in the FpML document. “a..b” indicates that the number of occurrence allowed is from “a” to “b” (e.g. “0..U” denotes that the element can occur from 0 times to unlimited times in FpML document).

For the attribute part, it will present either “Req.” for required attribute or “Opt.” for optional attribute.

Sometimes, the cardinality would be represented as “0..1 (1..1)”. This means that the FpML schema requires that the cardinality of the field should be 0..1, while our business requirement further restricts it to 1..1.

- **Colouring of table cells**

The field description tables in the following sections adopt a cell-colouring scheme, which reveals different information about the field:

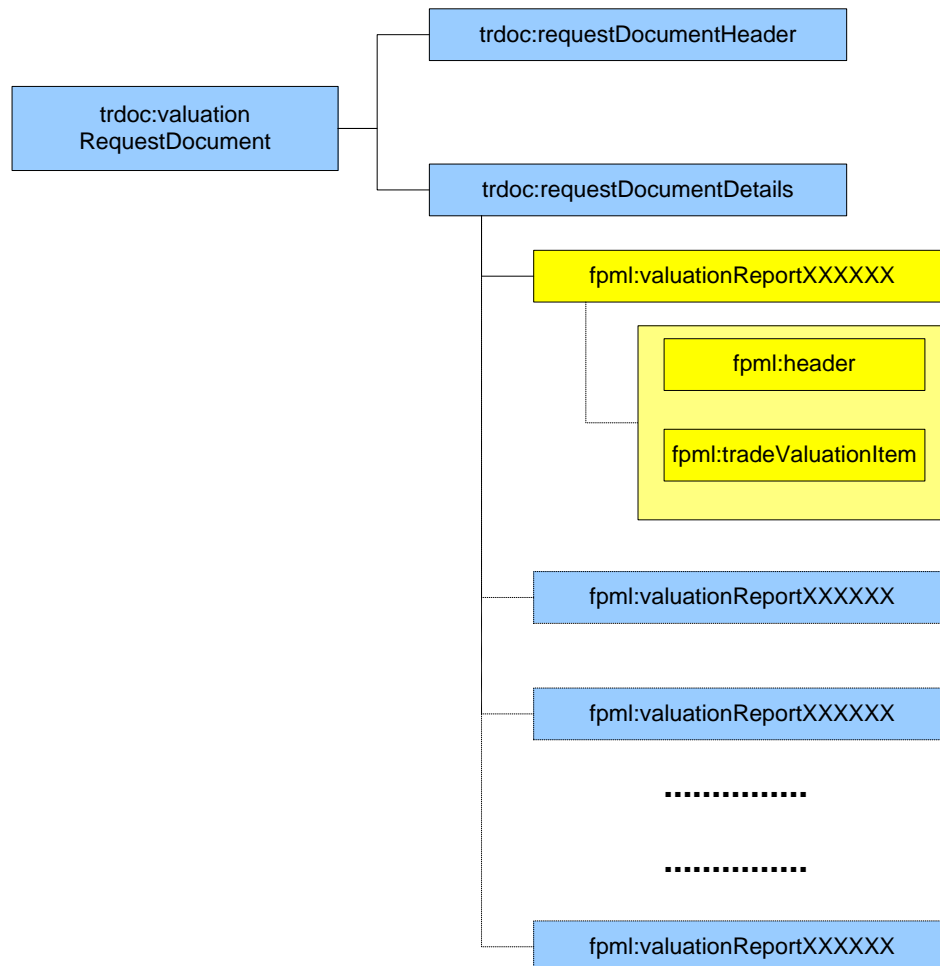
- a) A **green-coloured** cell indicates that the field is a custom field in HKTR-R, i.e. it is not found in the standard FpML schema.
- b) An **orange-coloured** cell indicates that the field can be further expanded, and that the description of fields within the expanded structure will be further elaborated in later sections.

Most of the fields are FpML standard fields. Fields that are custom-defined by HKICL, can be identified with namespace “tr”.

G.4 Valuation Request Document

G.4.1 `trdoc:valuationRequestDocument`

The general structure of the XML request document can be illustrated as follows:



The root element of a request document is “`valuationRequestDocument`”. The submitted XML document consists of two main components:

- ***trdoc:requestDocumentHeader*** (document header block)

The header contains the user’s unique identification to the request and some file level control information such as the number of detail items prepared in the request. For detailed layout, refer to G.4.2.

- ***trdoc:requestDocumentDetails*** (document detail block)

The Details block contains one or more individual valuation request

which should be encoded with FpML's ***valuationReport*** or ***valuationReportRetracted*** message. For detailed layout, please refer to appendix G.4.4 and G.4.5 respectively.

For valuationReport request, there are two major components:

- ***header*** (FpML message header)

The standard FpML message header component is fully described in appendix G.4.6.1.

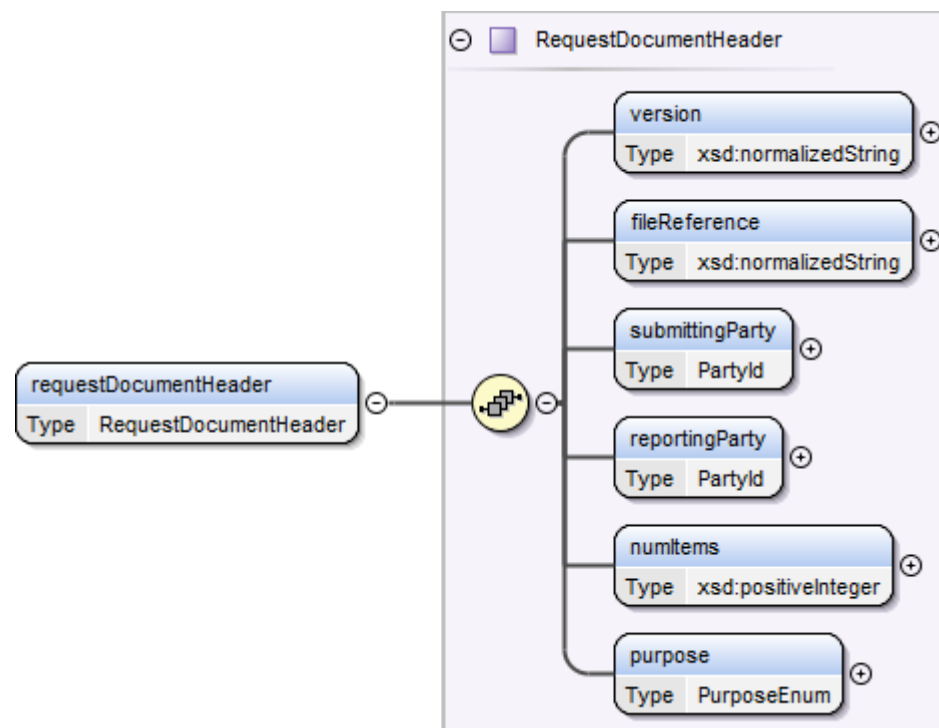
- ***TradeValuationItem*** (FpML field group for presenting Valuation information)

This is the main field group for collecting valuation data of a trade.

The mapping of message/element encoding to the HKTR-R's valuation reporting action types is as follows:

Action Type	FpML Message Usage
Reporting of valuation data (i.e. Add a valuation record / Modify an existing valuation record)	valuationReport
Deletion of valuation data (i.e. Delete an existing valuation record)	valuationReportRetracted

G.4.2 trdoc:requestDocumentHeader Component



Field Ref. No.	Field location	Field name / @Attribute	Data Type	Description	Usage Rule	Card.
1	/trdoc:valuationRequestDocument	trdoc:requestDocumentHeader	---	The header element for storing file-scoped information.		1..1
1.1	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	trdoc:version	xsd:normalizedString (5)	The version number that is common to all FpML messages within the file	The FpML version. For FpML 5.5, please fill in "5.5".	1..1

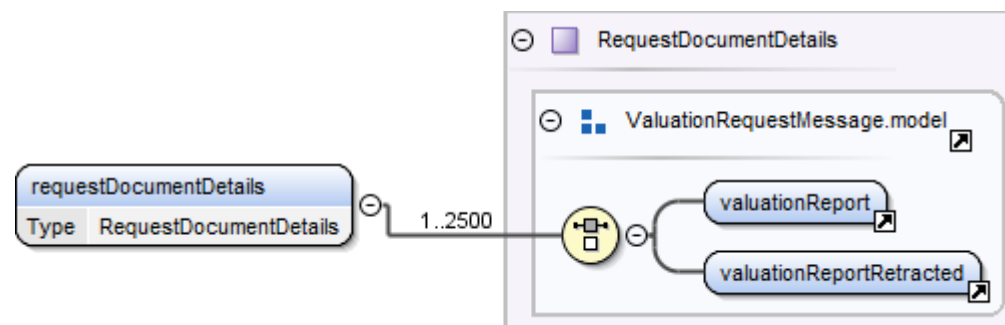
Field Ref. No.	Field location	Field name / @Attribute	Data Type	Description	Usage Rule	Card.
1.2	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	trdoc:fileReference	xsd:normalizedString (30)	A unique file reference to identify the whole submission of requests.	This file reference will be carried forward to the response file for user to correlate the requests. It is a user assigned alphanumeric field with a maximum of 30 characters in length.	1..1
1.3	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	trdoc:submittingParty	xsd:normalizedString (35)	The HKTR Entity ID, LEI, SWIFTBIC, CICR, or BRN of the party who submits the trade event to the HKTR system. For Party ID SWIFT BIC and BRN, party should input the first eight digits only Example SWIFTBIC: HKMAHKHHXXX should be inputted as HKMAHKHH BRN: 12345678 – 000 – 04 – 11 – A should be inputted as 12345678 For Party ID CICR, party should input all character(s) and digits Example For Local company (CI): Seven digits such as 9999999 For Non-local company (CR): Character(s) plus seven digits such as X9999999 or XX9999999.	A submitting party can submit a trade on behalf of a trading party. The ID should have been maintained in the HKTR. If the trading party reports the trade to HKTR-R by itself, the participant ID of the submitting party should be the same as that of the reporting party. It must be a participant not yet closed and configured as the authorized agent for the member specified in “reportingParty” element. <u>Further format, length and value constraints on different party IDs:</u> <i>LEI, HKTR Entity ID, SWIFT BIC, CICR, BRN:</i> Please refer to the format field in “PartyIdentifierType” sheet as stipulated in the worksheet of “Reporting – Ref – Enumerations and coding schemes.xls”.	1..1
	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader/trdoc:submittingParty	@partyIdScheme	xsd:anyURI	Party Id. Coding Scheme	It must be one of the followings: <ul style="list-style-type: none"> “http://www.fpml.org/coding-scheme/external/iso17442” (for party using LEI). 	Req.

Field Ref. No.	Field location	Field name / @Attribute	Data Type	Description	Usage Rule	Card.
	ty				<ul style="list-style-type: none"> • “http://www.hkicl.com.hk/scheme/hktr/tr-entity-id” (for party using HKTR Entity ID). • “http://www.fpml.org/ext/iso9362” (for party using SWIFT BIC). • “http://www.hkicl.com.hk/scheme/ci-cm” (for party using CI/CR number) • “http://www.hkicl.com.hk/scheme/hkbrn” (for party using Hong Kong Business Registration Number). <p>Note that the party specified must be a HKTR participant.</p>	

Field Ref. No.	Field location	Field name / @Attribute	Data Type	Description	Usage Rule	Card.
1.4	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	trdoc:reportingParty	xsd:normalizedString (35)	<p>The HKTR Entity ID, LEI, SWIFTBIC, CICR, or BRN of the party who has the reporting obligation to report the transaction.</p> <p>For Party ID SWIFT BIC and BRN, party should input the first eight digits only Example SWIFTBIC: HKMAHKHHXXX should be inputted as HKMAHKHH BRN: 12345678 – 000 – 04 – 11 – A should be inputted as 12345678</p> <p>For Party ID CICR, party should input all character(s) and digits Example For Local company (CI): Seven digits such as 9999999 For Non-local company (CR): Character(s) plus seven digits such as X9999999 or XX9999999.</p>	<p>It must be an active participant in the HKTR-R system. The ID should have been maintained in the HKTR.</p> <p><u>Further format, length and value constraints on different party IDs:</u></p> <p><i>LEI, HKTR Entity ID, SWIFT BIC, CICR, BRN:</i> Please refer to the format field in “PartyIdentifierType” sheet as stipulated in the worksheet of “Reporting – Ref – Enumerations and coding schemes.xls”.</p>	1..1

Field Ref. No.	Field location	Field name / @Attribute	Data Type	Description	Usage Rule	Card.
	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader/trdoc:reportingParty	@partyIdScheme	xsd:anyURI	Party Id. Coding Scheme	<p>It must be one of the followings:</p> <ul style="list-style-type: none"> • “http://www.fpml.org/coding-scheme/external/iso17442” (for party using LEI). • “http://www.hkicl.com.hk/scheme/hktr/tr-entity-id” (for party using HKTR Entity ID). • “http://www.fpml.org/ext/iso9362” (for party using SWIFT BIC). • “http://www.hkicl.com.hk/scheme/ci/crm” (for party using CI/CR number) • “http://www.hkicl.com.hk/scheme/hkbrn” (for party using Hong Kong Business Registration Number). <p>Note that the party specified must be a HKTR participant.</p>	Req.
1.5	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	trdoc:numItems	xsd:positiveInteger (4)	Total number of reporting items in the request file.	The number will be reconciled with the actual no. of trade event request record embedded in the <requestDocumentDetails> block.	1..1
1.6	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	trdoc:purpose	xsd:normalizedString(15)	The purpose of the file.	For valuation reporting, it must be “Valuation”.	1..1
1.7	/trdoc:valuationRequestDocument/trdoc:requestDocumentHeader	@purposeScheme	xsd:anyURI	Purpose: Coding Scheme	<p>Simply ignored by HKTR-R system.</p> <p>Always use the default value: “http://www.hkicl.com.hk/scheme/hktr/purpose”</p>	Opt.

G.4.3 trdoc:requestDocumentDetails Component

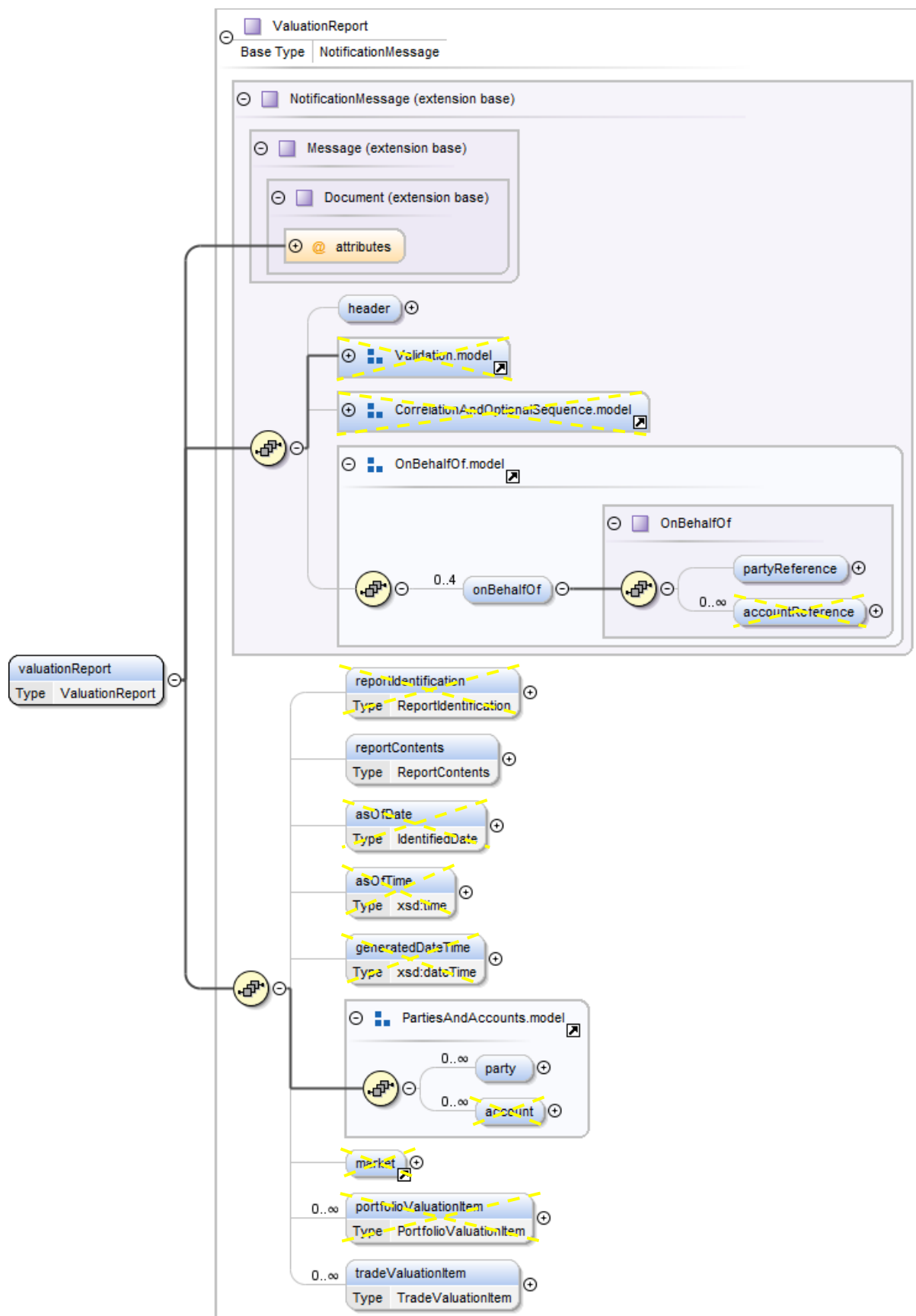


Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
2	/trdoc:valuationRequestDocument	trdoc:requestDocumentDetails	---	The detail block of one or more requests		1..1
2.1	/trdoc:valuationRequestDocument/trdoc:requestDocumentDetails	valuationReport	---	<p>Used only if the purpose of the file is "Valuation".</p> <p>Either valuationReport or valuationReportRetracted component exists.</p> <p>It is used to report the valuation request for reporting purpose.</p> <p>For layout of valuationReport, refer to appendix G.4.4.</p>		1..2500
	/trdoc:valuationRequestDocument/trdoc:requestDocumentDetails/valuationReport	@fpmlVersion	---		The FpML version. For FpML 5.5, please fill in "5-5".	Req.

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
2.2	/trdoc:valuationRequestDocument/trdoc:requestDocumentDetails	tr:valuationReportRetracted	---	<p>Used only if the purpose of the file is “Valuation”.</p> <p>Either valuationReport or valuationReportRetracted component exists.</p> <p>It is used to delete the valuation record on a particular valuation date for the reporting trade.</p> <p>For the layout of valuationReportRetracted, refer to appendix G.4.5.</p>		1..2500
	/trdoc:valuationRequestDocument/trdoc:requestDocumentDetails/tr:valuationReportRetracted	@fpmlVersion			The FpML version. For FpML 5.5, please fill in “5-5”.	Req.

G.4.4 valuationReport Message

The valuationReport message is used when the reporting party intends to report valuation data or to modify the reported valuation data for a particular valuation date of an existing trade. The structure of the message is illustrated in the following diagram.



Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
1	/	valuationReport	---	It is used to report valuation data or to modify the reported valuation data for a particular valuation date of an existing trade.		0..U (1..2500)
1.1	/valuationReport	header	---	A type refining the generic message header content to make it specific to request messages. For detailed layout, refer to appendix G.4.6.1.		0..1 (1..1)
1.2	/valuationReport	onBehalfOf	---	Indicates which party (and accounts) a trade is being processed for.	If the request is submitted by the agent participant, this field is used to specify the actual reporting party. If “submittingParty” is different from “reportingParty” as specified in the XML block “requestDocumentHeader” (Refer to appendix G.4.2), it must be specified with same value as the “reportingParty” field. If the party is submitting the request for itself, this block must be omitted. The HKTR-R system does not support reference to an account rather than a party.	0..4 (0..1)
1.2.1	/valuationReport/onBehalfOf	partyReference	Reference	The party for which the message receiver should work.	Only HKTR Entity ID, LEI, SWIFTBIC, CICR, and BRN are supported. The party referenced must be a HKTR participant.	0..1 (1..1)

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
	/valuationReport/onBehalfOf/partyReference	@href	xsd:IDREF	The reference to a party.	It indicates the reference of the party block representing the actual reporting party.	Req.
1.3	/valuationReport	reportContents	---	User can use this block to store the information of the trade correlated with the valuation information. For detailed layout, refer to appendix G.4.6.2.		0..1
1.4	/valuationReport	party	---	A legal entity or a subdivision of a legal entity.		0..U (1..50)
	/valuationReport/party	@id	xsd:ID	The id uniquely identifying the Party within the document.		Req.

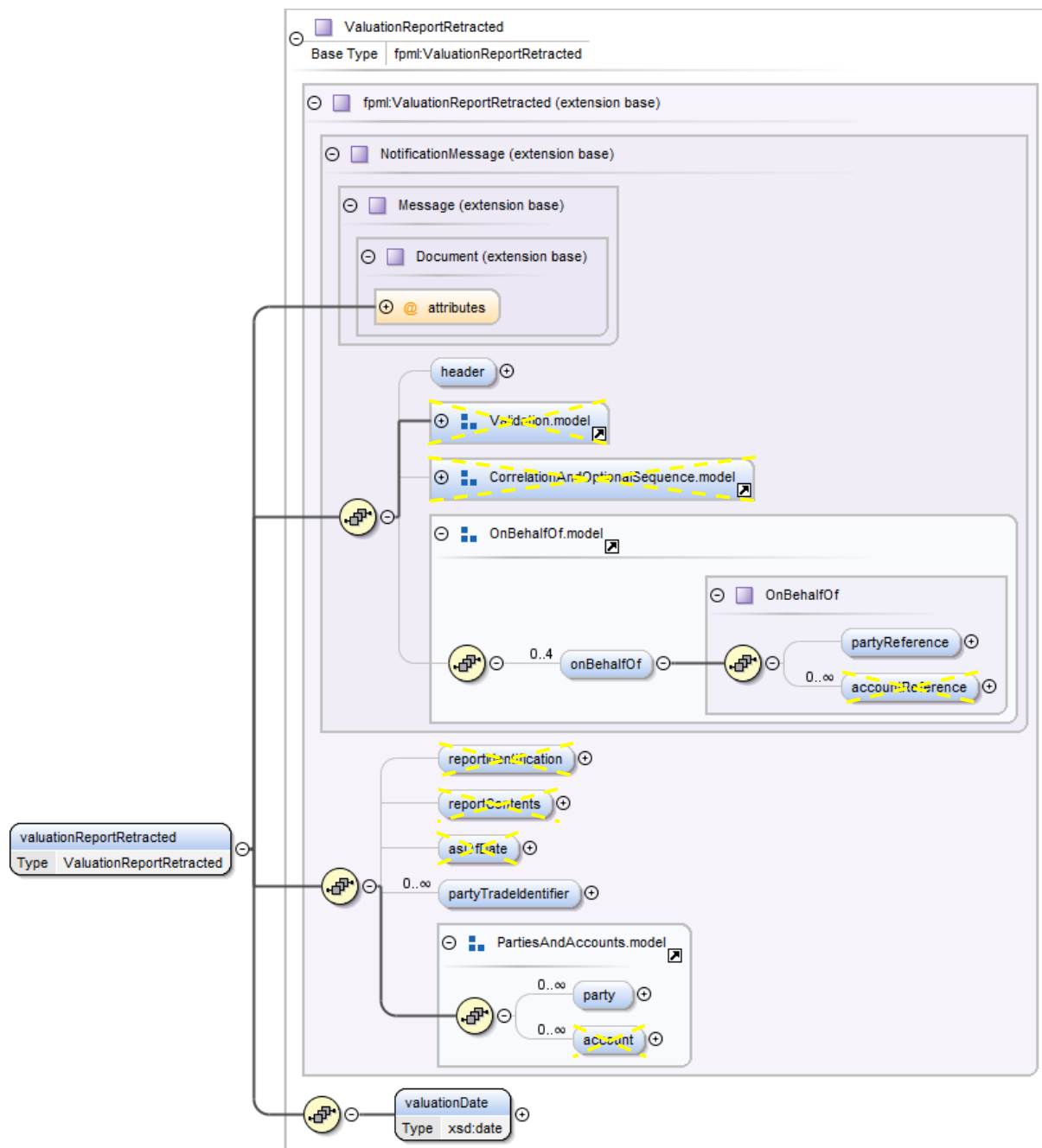
Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
1.4.1	/valuationReport/party	partyId	xsd:normalizedString (255)	<p>A party identifier can be one of the either</p> <ul style="list-style-type: none"> • Legal Entity Identifier • HKTR Entity ID • SWIFT BIC • Certificate of Incorporation (CI) / Certificate of Registration (CR) Number • Hong Kong Business Registration Number (BRN) • User Defined Code • Masked Party <p>For Party ID SWIFT BIC and BRN, party should input the first eight digits only Example SWIFTBIC: HKMAHKHHXXX should be inputted as HKMAHKHH BRN: 12345678 – 000 – 04 – 11 – A should be inputted as 12345678</p> <p>For Party ID CICR, party should input all character(s) and digits Example For Local company (CI): Seven digits such as 9999999 For Non-local company (CR): Character(s) plus seven digits such as X9999999 or XX999999.</p>	<p><u>Further format, length and value constraints on different party IDs:</u></p> <p><i>LEI, HKTR Entity ID, SWIFT BIC, CICR, BRN, User Defined Code:</i> Please refer to the format field in “PartyIdentifierType” sheet as stipulated in the worksheet of “Reporting – Ref – Enumerations and coding schemes.xls”.</p>	0..U (1..15)

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
	/valuationReport/ party/partyId	@partyIdScheme	xsd:anyURI	Party Id. Coding Scheme	<p>If the element is referenced by "onBehalfOf" field of "/valuationReport" or any non-payment related fields (e.g. trade counterparties), it must be one of the followings:</p> <ul style="list-style-type: none"> • "http://www.fpml.org/coding-scheme/external/iso17442" (for party using LEI). • "http://www.hkicl.com.hk/scheme/hktr/tr-entity-id" (for party using HKTR Entity ID). • "http://www.fpml.org/ext/iso9362" (for party using SWIFT BIC). • "http://www.hkicl.com.hk/scheme/cicm" (for party using CI/CR number) • "http://www.hkicl.com.hk/scheme/hkbrn" (for party using Hong Kong Business Registration Number). • "http://www.hkicl.com.hk/scheme/hktr/user-defined" (for party using user defined ID). • "http://www.hkicl.com.hk/scheme/hktr/masked-party-id" (for party using masked party ID) <p>Note that in the submitted document, exactly one of the above can be present.</p>	Opt. (Req.)
1.4.2	/valuationReport/party	partyName	xsd:normalized String (255)	The party name of the organization. A free format string.		0..1

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
1.5	/valuationReport	tradeValuationItem	---	<p>A collection of data values describing the state of the given trade. It stores the core valuation information to be reported.</p> <p>For detailed layout, refer to appendix G.4.6.3.</p>		0..U (1..1)

G.4.5 valuationReportRetracted Message

The valuationReportRetracted message is used when the reporting party intends to remove the reported valuation data for a particular valuation date of an existing trade. The structure of the message is illustrated in the following diagram.



Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
1	/	tr:valuationReportRetracted	---	It is used when the reporting party intends to remove the reported valuation data for a particular valuation date of an existing trade.		0..U (1..2500)
1.1	/tr:valuationReportRetracted	header	---	A type refining the generic message header content to make it specific to request messages. For detailed layout, refer to appendix G.4.6.1.		0..1 (1..1)
1.2	/tr:valuationReportRetracted	onBehalfOf	---	Indicates which party (and accounts) a trade is being processed for.	If the request is submitted by the agent participant, this field is used to specify the actual reporting party. If “submittingParty” is different from “reportingParty” as specified in the XML block “requestDocumentHeader” (Refer to appendix G.4.2), it must be specified with same value as the “reportingParty” field. If the party is submitting the request for itself, this block must be omitted. The HKTR-R system does not support reference to an account rather than a party.	0..4 (0..1)
1.2.1	/tr:valuationReportRetracted /onBehalfOf	partyReference	Reference	The party for which the message receiver should work.	Only HKTR Entity ID, LEI, SWIFTBIC, CICR, and BRN are supported. The party referenced must be a HKTR participant.	0..1 (1..1)

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
	/tr:valuationReportRetracted/onBehalfOf/partyReference	@href	xsd:IDREF	The reference to a party.	It indicates the reference of the party block representing the actual reporting party.	Req.
1.3	/tr:valuationReportRetracted	partyTradeIdentifier	TradeIdentifier. Refer to section G.4.6.4 for details.	The trade identifier of the correlated trade related to the valuation data.		0..U (1..1)
1.4	/tr:valuationReportRetracted	party	---	A legal entity or a subdivision of a legal entity.		0..U (1..50)
	/tr:valuationReportRetracted/party	@id	xsd:ID	The id uniquely identifying the Party within the document.		Req.

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
1.4.1	/tr:valuationReportRetracted /party	partyId	xsd:normalized String (255)	<p>A party identifier can be one of the either</p> <ul style="list-style-type: none"> • Legal Entity Identifier • HKTR Entity ID • SWIFT BIC • Certificate of Incorporation (CI) / Certificate of Registration (CR) Number • Hong Kong Business Registration Number (BRN) • User Defined Code • Masked Party <p>For Party ID SWIFT BIC and BRN, party should input the first eight digits only Example SWIFTBIC: HKMAHKHHXXX should be inputted as HKMAHKHH BRN: 12345678 – 000 – 04 – 11 – A should be inputted as 12345678</p> <p>For Party ID CICR, party should input all character(s) and digits Example For Local company (CI): Seven digits such as 9999999 For Non-local company (CR): Character(s) plus seven digits such as X9999999 or XX999999.</p>	<p><u>Further format, length and value constraints on different party IDs:</u></p> <p><i>LEI, HKTR Entity ID, SWIFT BIC, CICR, BRN, User Defined Code:</i> Please refer to the format field in “PartyIdentifierType” sheet as stipulated in the worksheet of “Reporting – Ref – Enumerations and coding schemes.xls”.</p>	0..U (1..15)

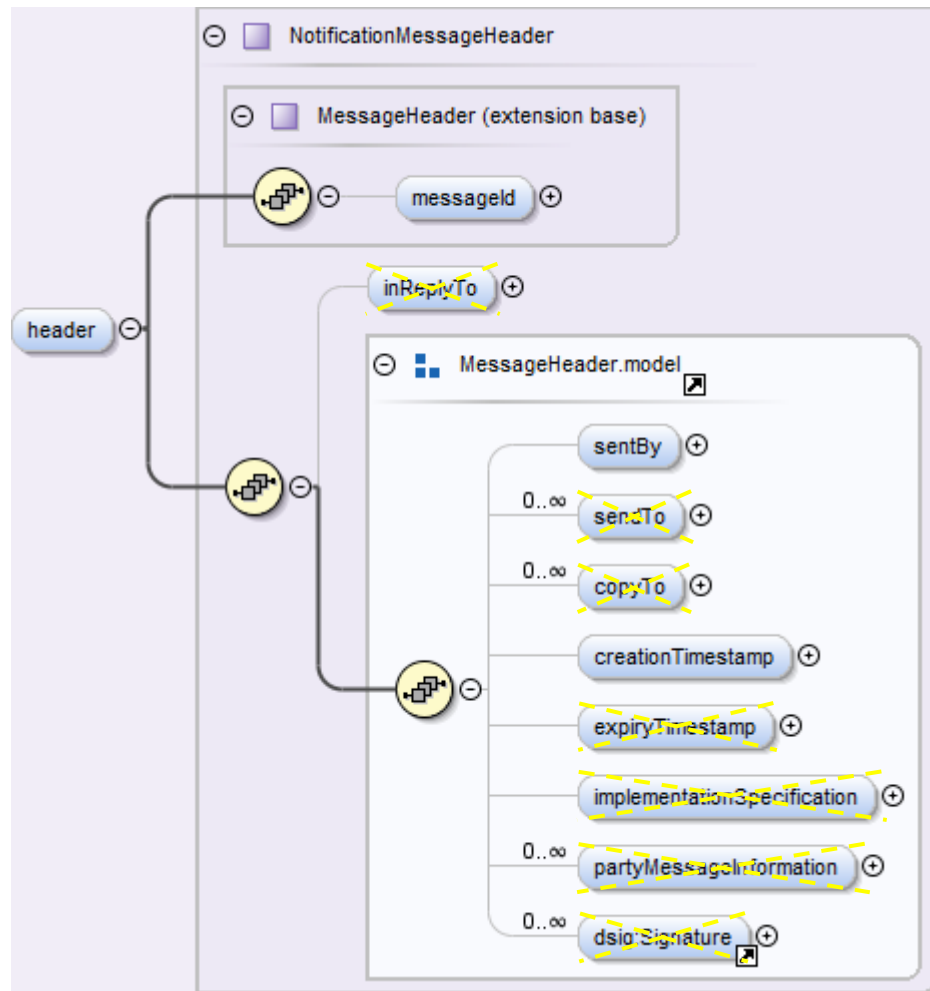
Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
	/tr:valuationReportRetracted / party/partyId	@partyIdScheme	xsd:anyURI	Party Id. Coding Scheme	<p>If the element is referenced by "sentTo", "onBehalfOf" field of "../valuationReport" or any non-payment related fields (e.g. trade counterparties), it must be one of the followings:</p> <ul style="list-style-type: none"> • "http://www.fpml.org/coding-scheme/external/iso17442" (for party using LEI). • "http://www.hkicl.com.hk/scheme/hktr/tr-entity-id" (for party using HKTR Entity ID). • "http://www.fpml.org/ext/iso9362" (for party using SWIFT BIC). • "http://www.hkicl.com.hk/scheme/cicm" (for party using CI/CR number) • "http://www.hkicl.com.hk/scheme/hkbrn" (for party using Hong Kong Business Registration Number). • "http://www.hkicl.com.hk/scheme/hktr/user-defined" (for party using user defined ID). • "http://www.hkicl.com.hk/scheme/hktr/masked-party-id" (for party using masked party ID) <p>Note that in the submitted document, exactly one of the above can be present.</p>	Opt. (Req.)
1.4.2	/tr:valuationReportRetracted / party	partyName	xsd:normalizedString (255)	The party name of the organization. A free format string.		0..1

Field Ref. No.	Field location	Field name	Data Type	Description	Usage Rule	Card.
1.5	/tr:valuationReportRetracted	tr:valuationDate	xsd:date	The valuation date of the reported valuation data to be deleted		1..1

G.4.6 Common Request Message Elements

G.4.6.1 NotificationMessageHeader Component

The valuationReport and the valuationReportRetracted message for reporting embed a header component of type NotificationMessageHeader with the following structure.



Field Ref. No.	Field location (relative to /valuationReport or /tr:valuationReportRetracted)	Field name	Data Type	Description	Usage Rule	Card.
1	/	header	---	A type refining the generic message header content to make it specific to request messages.		1..1
1.1	/header	messageId	xsd:normalizedString (40)	A unique identifier (within its coding scheme) assigned to the message.	It is treated as the unique message ID assigned by user on each request. If the HKTR-R system receives two requests with the same identifier, the latter one will be rejected.	0..1 (1..1)
		@messageIdScheme	xsd:anyURI	Coding Scheme of messageIdScheme.	The HKTR-R system only supports party in coding scheme of " http://www.hkicl.com.hk/scheme/hktr/message-id ". If this attribute is not specified, the above is coding scheme is presumed.	Opt.

Field Ref. No.	Field location (relative to /valuationReport or /tr:valuationReportRetracted)	Field name	Data Type	Description	Usage Rule	Card.
1.2	/header	sentBy	xsd:normalizedString (35)	<p>The unique identifier (within its coding scheme) for the originator of a message instance.</p> <p>For Party ID SWIFT BIC and BRN, party should input the first eight digits only Example SWIFTBIC: HKMAHKHHXXX should be inputted as HKMAHKHH BRN: 12345678 – 000 – 04 – 11 – A should be inputted as 12345678</p> <p>For Party ID CICR, party should input all character(s) and digits Example For Local company (CI): Seven digits such as 9999999 For Non-local company (CR): Character(s) plus seven digits such as X9999999 or XX9999999.</p>	<p>If the element “../valuationReport/onBehalfOf” (Refer to section G.4.4) is not specified, the party is the trade reporting party. Otherwise, it is the agent party submitting the request on behalf of the party specified in the element.</p> <p><u>Further format, length and value constraints on different party IDs:</u></p> <p><i>LEI, HKTR Entity ID, SWIFT BIC, CICR, BRN:</i> Please refer to the format field in “PartyIdentifierType” sheet as stipulated in the worksheet of “Reporting – Ref – Enumerations and coding schemes.xls”.</p>	0..1 (1..1)

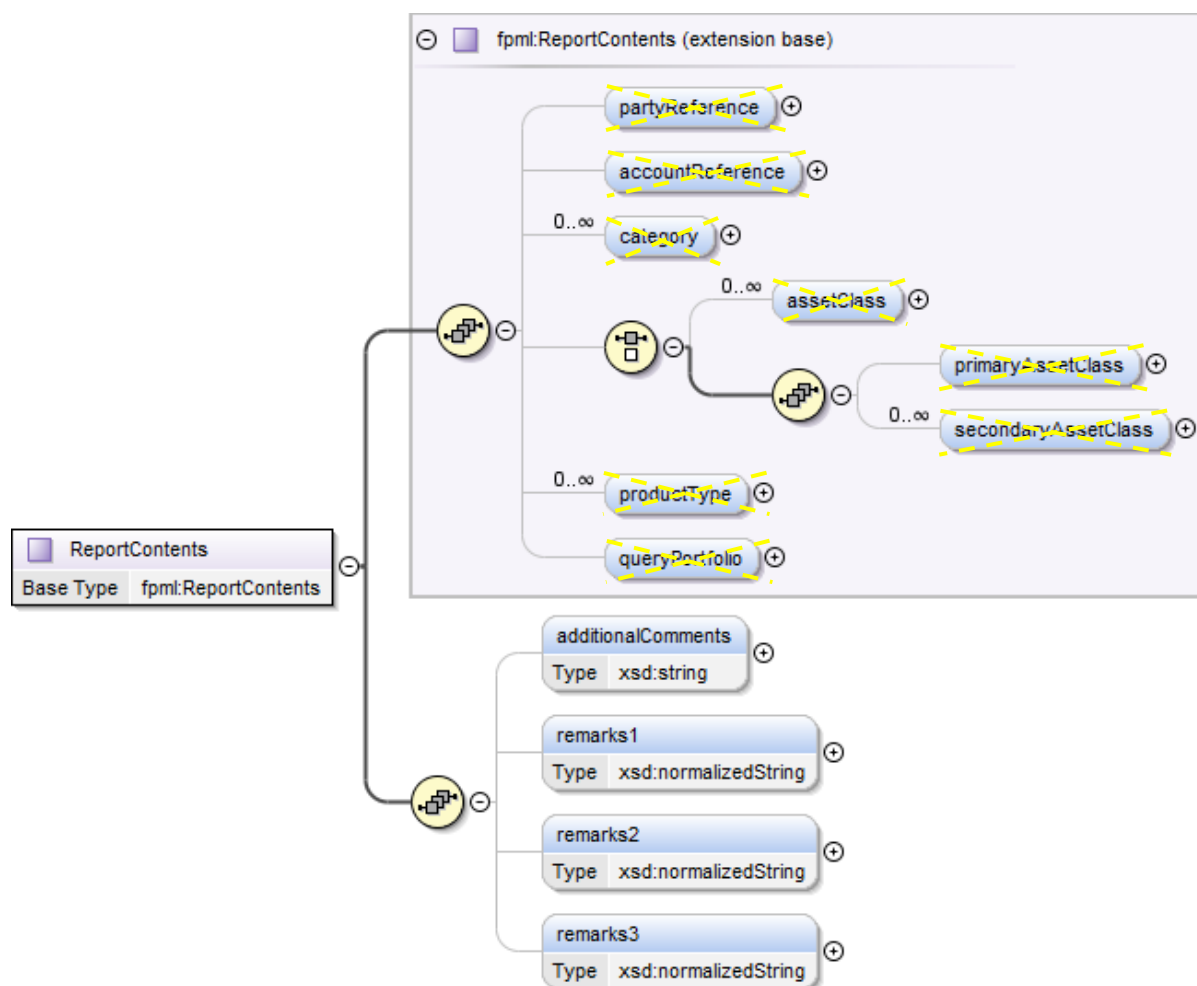
Field Ref. No.	Field location (relative to /valuationReport or /tr:valuationReportRetracted)	Field name	Data Type	Description	Usage Rule	Card.
	/header/sentBy	@messageAddressScheme	xsd:anyURI	Coding Scheme of sentBy.	<p>It must be one of the followings:</p> <ul style="list-style-type: none"> • "http://www.fpml.org/coding-scheme/external/iso17442" (for party using LEI). • "http://www.hkicl.com.hk/scheme/hktr/tr-entity-id" (for party using HKTR Entity ID). • "http://www.fpml.org/ext/iso9362" (for party using SWIFT BIC). • "http://www.hkicl.com.hk/scheme/cicrn" (for party using CI/CR number) • "http://www.hkicl.com.hk/scheme/hkbrn" (for party using Hong Kong Business Registration Number). <p>Note that the party specified must be a HKTR participant.</p>	Opt. (Req.)
1.3	/header	creationTimestamp	xsd:dateTime	The date and time (on the source system) when this message instance was created.		0..1 (1..1)

G.4.6.2 ReportContents Component

The reportContents element stores the information of the trade correlated with the valuation information, e.g. additional comments, remarks 1, etc.

Note that there are customized elements inside this structure. To use these customized elements, user should override the default ReportContents type with “tr:ReportContents” type using the **xsi:type** declaration.

Its structure can be illustrated as follows:



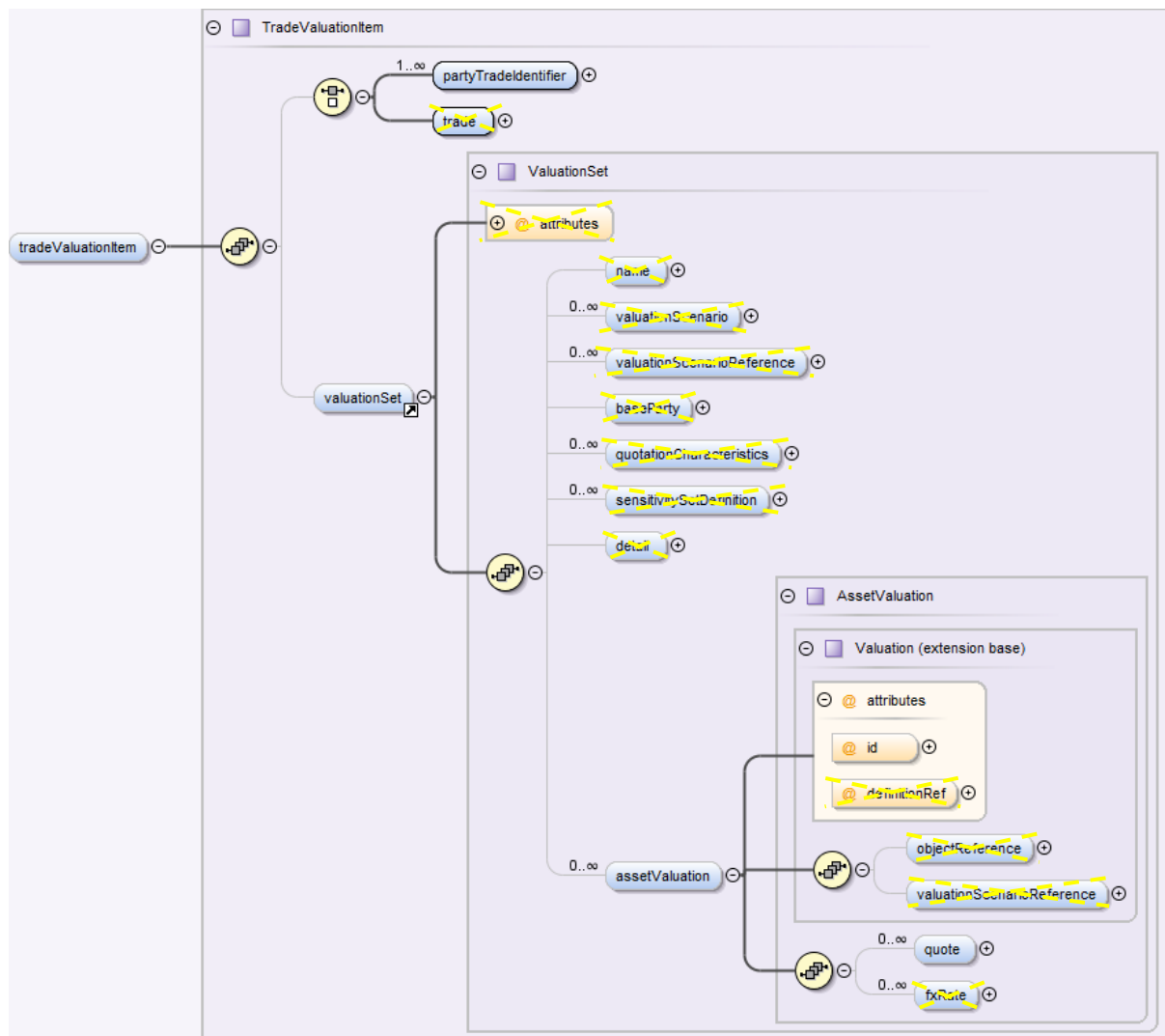
Field Reference Number	Field location (with root being the "ReportContents"-typed element)	Field name	Data Type	Description	Card.
1	/	tr:additionalComments	xsd:string (255)	Additional comments.	0..1
2	/	tr:remarks1	xsd:normalizedString (255)	Remark 1.	0..1
3	/	tr:remarks2	xsd:normalizedString (255)	Remark 2.	0..1
4	/	tr:remarks3	xsd:normalizedString (63)	Remark 3.	0..1

G.4.6.3 TradeValuationItem Component

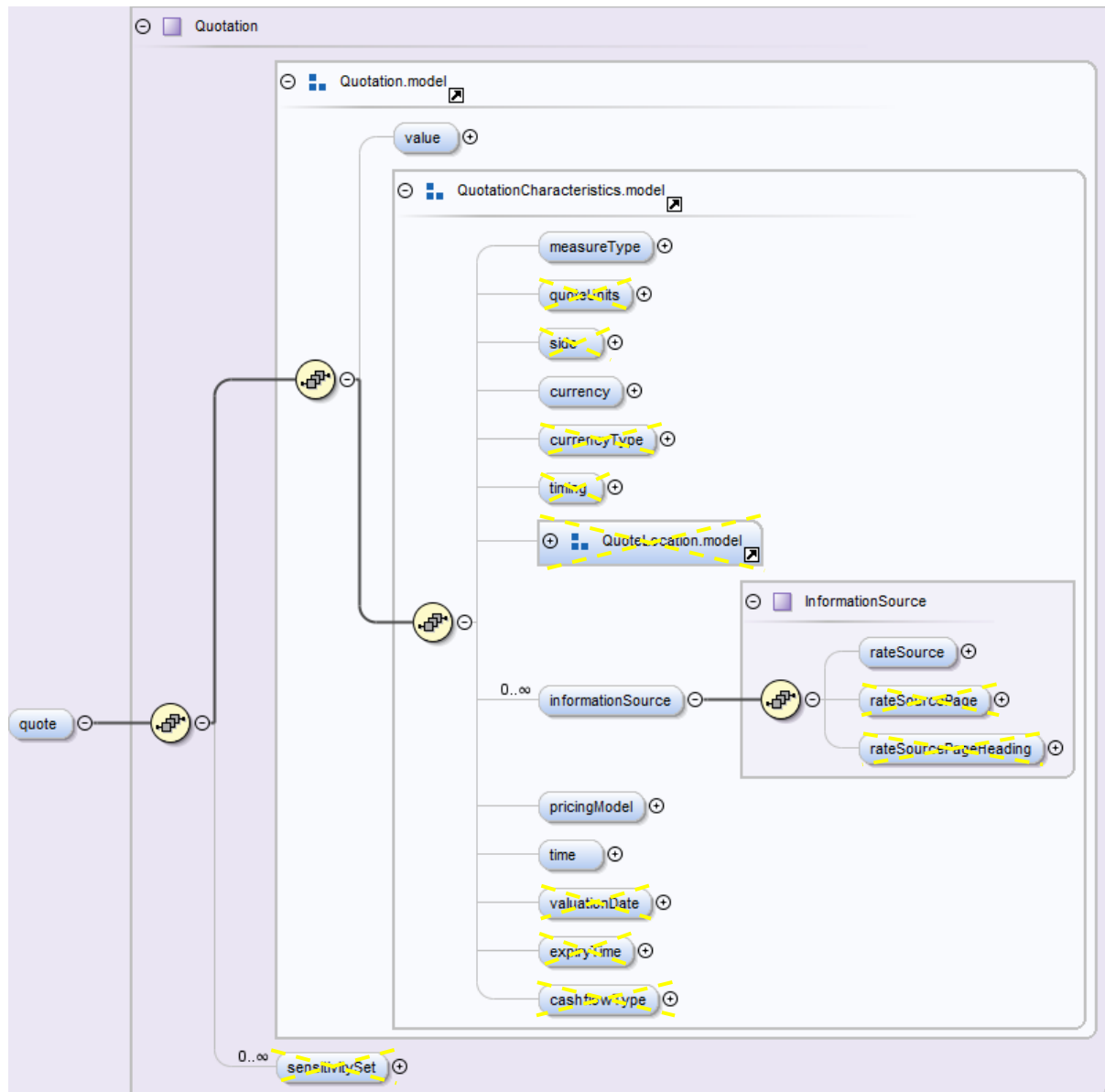
The tradeValuationItem element stores the core valuation information to be reported. Generally speaking, it contains:

- A *partyTradeIdentifier* element which refers to the trade that the valuation information is for; and,
- A *quote* element which stores the valuation details.

Its structure can be illustrated as follows:



The *quote* element can be further expanded as follows:



Field Ref. No.	Field location (with root being the "TradeValuationItem"-typed element)	Field name	Data Type	Description	Usage Rule	Card.
1	/	partyTradeIdentifier	TradeIdentifier. Refer to section G.4.6.4 for details.	The trade identifier of the correlated trade related to the valuation data.		0..U (1..1)
2	/	valuationSet	---	The trade valuation.		0..1 (1..1)
2.1	/valuationSet	assetValuation	---	Valuations reported in this valuation set. These values can be values (NPVs, prices, etc.) or risks (DAR, etc.).	<p>One can specify at most three sets of valuation data:</p> <ul style="list-style-type: none"> Trade valuation data valued from the point of view of reporting party; Trade valuation data valued from the point of view of counterparty; Trade valuation data valued from the point of view of central counterparty (CCP). <p>Note that it is mandatory to report the trade valuation data valued from the point of view of reporting party.</p>	0..U (1..3)

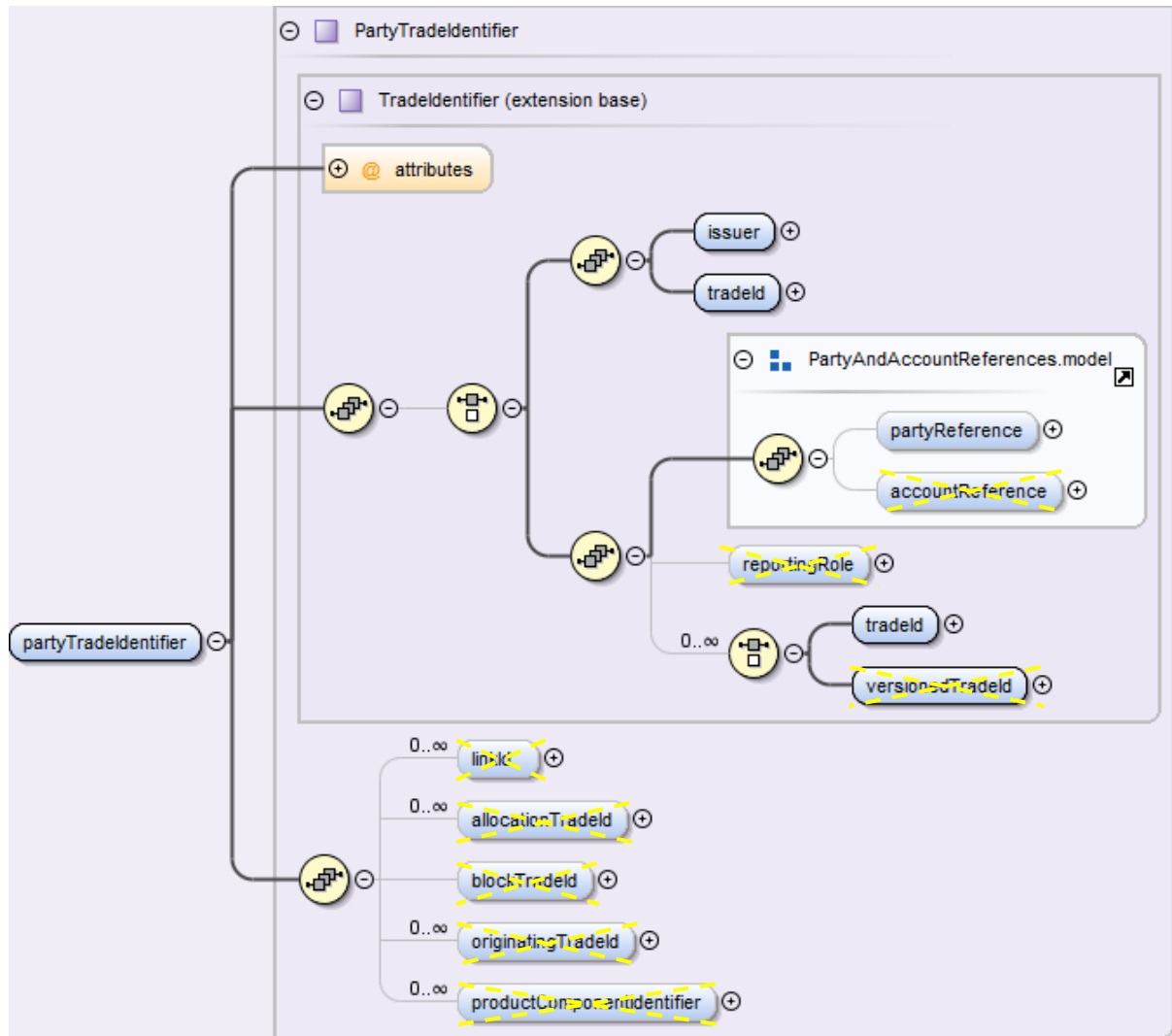
Field Ref. No.	Field location (with root being the "TradeValuationItem"-typed element)	Field name	Data Type	Description	Usage Rule	Card.
	/valuationSet/assetValuation	@id	xsd:ID	<p>The id attribute can only be populated with one of the following three possible values (case sensitive):</p> <ul style="list-style-type: none"> “reportingForParty”: The assetValuation block contains the trade valuation data valued from the point of view of reporting-for party; “counterparty”: The assetValuation block contains the trade valuation data valued from the point of view of counterparty; “ccp”: The assetValuation block contains the trade valuation data valued from the point of view of central counterparty (CCP). 	<p>There cannot be two assetValuation blocks with the same id attribute values on the left.</p> <p>Also, if the id value is not one of the three values listed on the left, the whole message will be rejected.</p>	Opt. (Req.)
2.1.1	/valuationSet/assetValuation	quote	---	The numerical measure relating to the asset.		0..U (1..1)
2.1.1.1	/valuationSet/assetValuation/quote	value	xsd:decimal (20,10)	Calculated valuation value.	It is required when this element is specified within assetValuation block with “id” equal to “reportingForParty”. Optional otherwise.	0..1
2.1.1.2	/valuationSet/assetValuation/quote	measureType	Scheme: ValuationType (xsd:normalized String (63))	The type of the value that is measured.	It is required when this element is specified within assetValuation block with “id” equal to “reportingForParty”. Optional otherwise.	0..1

Field Ref. No.	Field location (with root being the "TradeValuationItem"-typed element)	Field name	Data Type	Description	Usage Rule	Card.
	/valuationSet/assetValuation/quote/measureType	@assetMeasureScheme	xsd:anyURI		Simply ignored by HKTR-R system. Always use the default value: http://www.hkicl.com.hk/scheme/hktr/valuation-type	Opt.
2.1.1.3	/valuationSet/assetValuation/quote	currency	Scheme: Currency (xsd:normalizedString (3))	Native currency of the calculated valuation value.	It is required when this element is specified within assetValuation block with "id" equal to "reportingForParty". Optional otherwise.	0..1
	/valuationSet/assetValuation/quote/currency	@currencyScheme	xsd:anyURI	The code representation of a currency or fund. By default it is a valid currency code as defined by the ISO standard 4217 - Codes for representation of currencies and funds. Please refer to Appendix F Enumeration Spreadsheet - Currency Tab for the currency code list supported by HKTR-R.	Simply ignored by HKTR-R system. Always use the default value: http://www.fpml.org/ext/iso4217-2001-08-15	Opt.
2.1.1.4	/valuationSet/assetValuation/quote	informationSource	---	The information source where a published or displayed market rate will be obtained.		0..U (0..1)
2.1.1.4.1	/valuationSet/assetValuation/quote/informationSource	rateSource	xsd:normalizedString (40)	Source of Valuation.		0..1 (1..1)
	/valuationSet/assetValuation/quote/informationSource/rateSource	@informationProviderScheme	xsd:anyURI		Simply ignored by HKTR-R system. Always use the default value: http://www.hkicl.com.hk/scheme/hktr/valuation-source	Opt.

Field Ref. No.	Field location (with root being the "TradeValuationItem"-typed element)	Field name	Data Type	Description	Usage Rule	Card.
2.1.1.5	/valuationSet/assetValuation/quote	pricingModel	xsd:normalizedString (40)	Reference model used to calculate daily mark.		0..1
	/valuationSet/assetValuation/quote/pricingModel	@pricingModelScheme	xsd:anyURI		Simply ignored by HKTR-R system. Always use the default value: http://www.hkicl.com.hk/scheme/hktr/valuation-reference-model	Opt.
2.1.1.6	/valuationSet/assetValuation/quote	time	xsd:dateTime	The date and time of the valuation as in Coordinated Universal Time (UTC) of Hong Kong zone (UTC+8:00). Note that both the "date" part and the "time" part of the value have to be submitted.	It is required when this element is specified within assetValuation block with "id" equal to "reportingForParty". Optional otherwise.	0..1

G.4.6.4 PartyTradeIdentifier Component

The partyTradeIdentifier component mainly stores the details about a trade identifier. In terms of valuation request submission, it is mainly used to specify the trade reference of the correlated trade.



Field Reference Number	Field location (with root being the “PartyTradeIdentifier”-typed element)	Field name	Data Type	Description	Card.
	/	(branching) ¹		<p>The choose-1-out-of-2 branching between the field group [“issuer” + “tradeId”] and the field group [“partyReference” and “tradeId”].</p> <p>The first field group ([“issuer” + “tradeId”]) is mainly used to represent UTI.</p> <p>The second field group ([“partyReference” and “tradeId”]) is mainly used to represent HKTR trade reference, user trade reference, agent trade reference and UTI-TID.</p>	0..1 (1..1)
1.1	/	issuer	xsd:normalizedString(40)	<p>Either ((/issuer and /tradeId (1.2)) or (/partyReference and /tradeId (1.4)).</p> <p>The issuer ID of the issuer. This field is applicable only for UTI for trade correlation purpose.</p>	1..1
	/issuer	@issuerIdScheme	xsd:anyURI	<p>Simply ignored by HKTR-R system. Always use the default value: http://www.fpml.org/coding-scheme/external/cftc/issuer-identifier</p>	Opt.
1.2	/	tradeId	xsd:normalizedString(200)	<p>Either ((/issuer and /tradeId (1.2)) or (/partyReference and /tradeId (1.4)).</p> <p>A trade reference identifier. This field is applicable only for UTI for trade correlation purpose.</p> <p><u>UTI</u> UTI specified by the HKTR only includes the Unique Swap Identifier (USI) required to be reported by the US Commodity Futures Trading Commission's (CFTC) regulations for recording keeping and swap data reporting</p>	1..1

¹ This is not a real XML element. It is specified here to show the whole choose-1-out-of-2 branching.

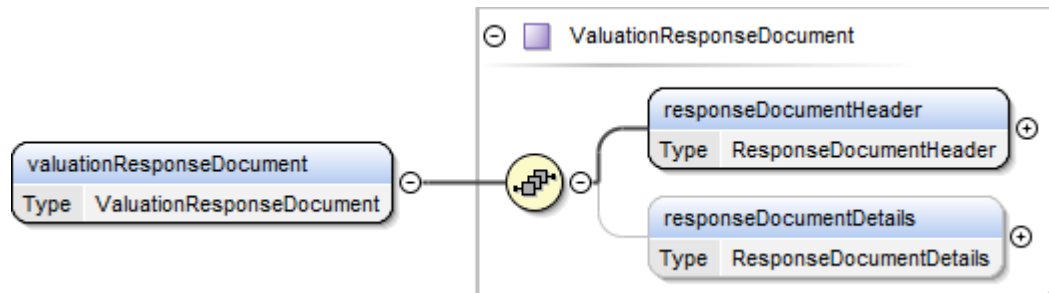
Field Reference Number	Field location (with root being the "PartyTradeIdentifier"-typed element)	Field name	Data Type	Description	Card.
				<p>purposes.</p> <p>The value of specified UTI should be presented in conformity with the format and structure applicable to it.</p>	
	/tradeId	@tradeIdScheme	xsd:anyURI	<p>Please use the following URLs for the corresponding types of trade identifiers for trade correlation purpose.</p> <p>UTI: http://www.fpml.org/coding-scheme/external/unique-transaction-identifier</p>	Opt. (Req.)
1.3	/	partyReference	Reference	<p>Either ((/issuer and /tradeId (1.2)) or (/partyReference and /tradeId (1.4)).</p> <p>Reference to a reporting party.</p>	0..1 (1..1)
	/partyReference	@href	xsd:IDREF	Reference to a reporting party.	Req.
1.4	/	tradeId	<p>xsd:normalizedString (255)</p> <p><u>Further length constraints on different trade IDs:</u></p> <p>UTI-TID: xsd:normalizedString(241)</p> <p>HKTR trade reference: xsd:normalizedString(15)</p> <p>Agent trade reference: xsd:normalizedString(40)</p> <p>User trade reference: xsd:normalizedString(241)</p>	<p>Either ((/issuer and /tradeId (1.2)) or (/partyReference and /tradeId (1.4)).</p> <p>A trade reference identifier allocated by a party.</p> <p><u>UTI-TID</u> If a unique Trade ID (TID) reportable under the mandatory reporting requirements in the European Union exists for the trade, the value of the TID, presented in conformity with the format and structure applicable to it. Definition of the TID can be found at:</p> <p>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:052:0001:0010:EN:PDF</p> <p>Users may refer to the updates of the website from time to time.</p>	0..U (1..1)

Field Reference Number	Field location (with root being the "PartyTradeIdentifier"-typed element)	Field name	Data Type	Description	Card.
				<p><u>HKTR trade reference</u> Unique trade reference generated by TR system.</p> <p><u>Agent trade reference</u> The trade reference used by agent.</p> <p><u>User trade reference</u> The trade reference used by the reporting party.</p> <p><u>Field usage</u> For trade correlation purpose, there should be at most one of the following trade identifiers for correlation purpose:</p> <ul style="list-style-type: none"> - The existing user trade reference; - Or the existing agent trade reference (only applicable to agent); - Or the existing HKTR trade reference; - Or the existing UTI-TID. 	
	/tradeId	@tradeIdScheme	xsd:anyURI	<p>Please use the following URIs for the corresponding types of trade identifiers for trade correlation purpose.</p> <p>HKTR trade reference: http://www.hkicl.com.hk/scheme/hktr/trade-ref</p> <p>Agent trade reference: http://www.hkicl.com.hk/scheme/hktr/agent-trade-ref</p> <p>User trade reference: http://www.hkicl.com.hk/scheme/hktr/user-trade-ref</p> <p>UTI-TID: http://www.hkicl.com.hk/scheme/unique-transaction-identifier-unique-trade-id</p>	Opt. (Req.)

G.5 Valuation Response Document

G.5.1 `trdoc:valuationResponseDocument`

The general structure of the XML request document can be illustrated as follows:



The root element of a response document is “`valuationResponseDocument`”. The submitted XML document is consisted of two main components:

- ***trdoc:responseDocumentHeader*** (document header block)

The header returns the user’s unique identification carried on the original request document header. It also carries a system-assigned unique reference to the document and a file-level error code, if any. For the detailed layout, please refer to G.4.2.

- ***trdoc:responseDocumentDetails*** (document detail block)

The Details block contains one or more event request which should be encoded with FpML’s ***valuationReportAcknowledgement*** or ***valuationReportException*** message. For the detailed layout, refer to appendix G.5.4 (`valuationReportAcknowledgement`) and G.5.5 (`valuationReportException`) respectively.

Note that in case of malformed request file name or malformatted request file, an empty *responseDocumentDetails* block will be returned.

For each response, there exists:

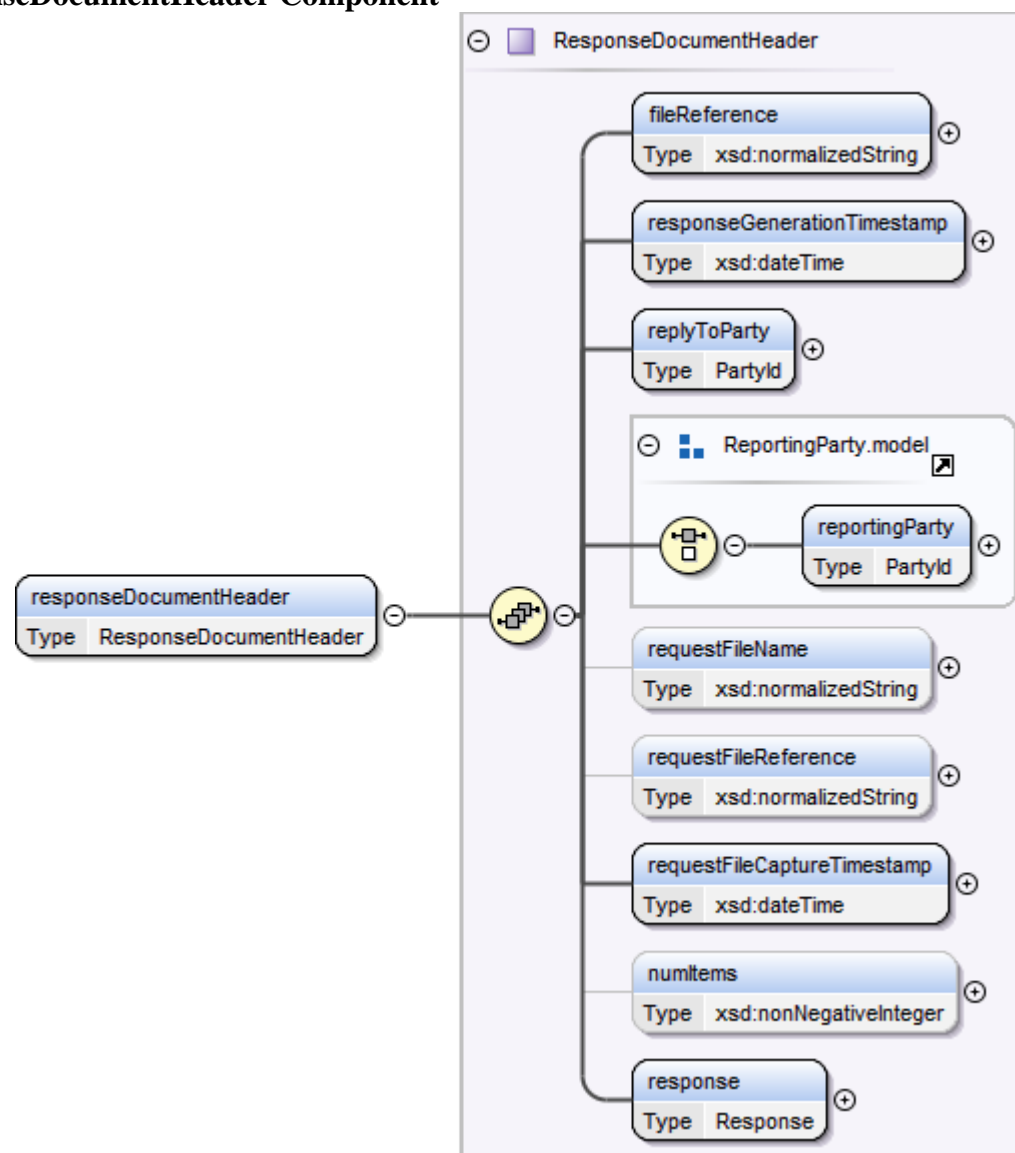
- ***header*** (FpML response message header)

The standard FpML message header component is fully described in appendix G.5.6.1.

The mapping of message/element encoding to the HKTR-R's reporting response types is as follows:

Response Type	FpML Message Usage
Successful Data Capturing	valuationReportAcknowledgement
Rejection Response	valuationReportException

G.5.2 trdoc:responseDocumentHeader Component

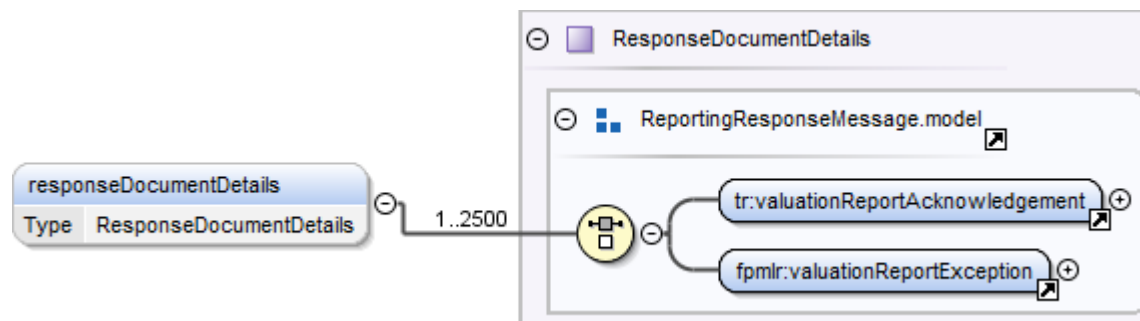


Field Ref. No.	Field location	Field name	Data Type	Description / Usage Rule	Card.
1	/trdoc:valuationResponseDocument	trdoc:responseDocumentHeader	---	The header element for storing file-scoped information	1..1
1.1	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:fileReference	xsd:normalizedString (30)	A unique document identifier generated by the HKTR-R system to requesting party for reference.	1..1
1.2	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:responseGenerationTimestamp	xsd:dateTime	The time at which the response file is generated	1..1
1.3	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:replyToParty	xsd:normalizedString (35)	The TR participant who receives the response. Generally speaking, it should be identical to the submittingParty specified in the request document.	1..1
	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader/trdoc:replyToParty	@partyIdScheme	xsd:anyURI	<p>It must be one of the followings:</p> <ul style="list-style-type: none"> • "http://www.fpml.org/coding-scheme/external/iso17442" (for party using LEI). • "http://www.hkicl.com.hk/scheme/hktr/tr-entity-id" (for party using HKTR Entity ID). • "http://www.fpml.org/ext/iso9362" (for party using SWIFT BIC). • "http://www.hkicl.com.hk/scheme/cicrn" (for party using CI/CR number) • "http://www.hkicl.com.hk/scheme/hkbrn" (for party using Hong Kong Business Registration Number). <p>Note that the party specified must be a HKTR participant.</p>	Req.
1.4	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:reportingParty	xsd:normalizedString (35)	<p>The HKTR Entity ID, LEI, SWIFTBIC, CICR, or BRN of the reporting party.</p> <p>The reporting party must be a HKTR participant.</p>	0..1

Field Ref. No.	Field location	Field name	Data Type	Description / Usage Rule	Card.
	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader/trdoc:reportingParty	@partyIdScheme	xsd:anyURI	<p>It must be one of the followings:</p> <ul style="list-style-type: none"> • "http://www.fpml.org/coding-scheme/external/iso17442" (for party using LEI). • "http://www.hkicl.com.hk/scheme/hktr/tr-entity-id" (for party using HKTR Entity ID). • "http://www.fpml.org/ext/iso9362" (for party using SWIFT BIC). • "http://www.hkicl.com.hk/scheme/cicrn" (for party using CI/CR number) • "http://www.hkicl.com.hk/scheme/hkbrn" (for party using Hong Kong Business Registration Number). <p>Note that the party specified must be a HKTR participant.</p>	Req.
1.5	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:requestFileName	xsd:normalizedString (255)	The original request file name submitted by the submitting party.	0..1
1.6	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:requestFileReference	xsd:normalizedString (30)	The file reference of the original request document.	0..1
1.7	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:requestFileCaptureTimestamp	xsd:dateTime	The timestamp at which the request file is captured.	1..1
1.8	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:numItems	xsd:nonNegativeInteger (4)	<p>It returns the number of response record to be returned to the user.</p> <p>If there is no document level exception, the number should be the same as the number of requests contained in the request document.</p> <p>If document level exception occurs and the system does not process detail request, the field will be blank and document level exception information can be acquired in "reason" block in the same header.</p>	0..1

Field Ref. No.	Field location	Field name	Data Type	Description / Usage Rule	Card.
1.9	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader	trdoc:response	---	The block that is used for holding the result of executing the request and their corresponding reasons for the response.	1..1
1.9.1	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader/trdoc:response	trdoc:responseCode	xsd:normalizedString (6)	<p>It carries a success return code if there is no document level exception. If a document-level exception occurs, it carries an error code with a reason description.</p> <p>User should not mix up this response code with the code returned for individual trade event detail response. There may be a situation in which all trade event requests are processed but rejected by the system and this field will still carry a success return code since no document level exception occurs.</p>	1..1
1.9.2	/trdoc:valuationResponseDocument/trdoc:responseDocumentHeader/trdoc:response	trdoc:responseDesc	xsd:normalizedString (1024)	<p>Reason description corresponding to the reasonCode.</p> <p>The field is not present if the reasonCode is success return code.</p>	0..1

G.5.3 trdoc:responseDocumentDetails Component

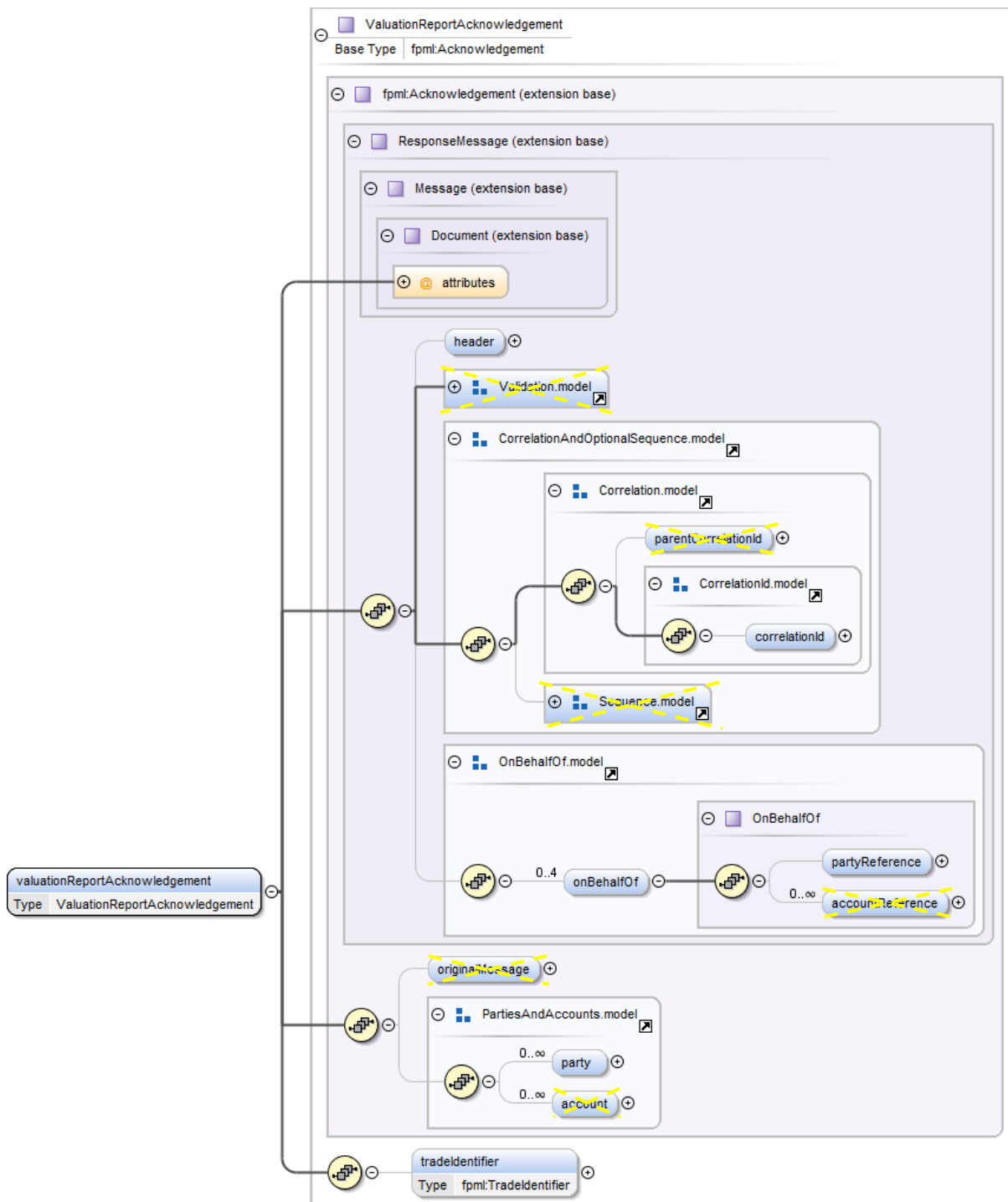


Field Reference Number	Field location	Field name	Data Type	Description / Usage Rule	Card.
2	/trdoc:valuationResponseDocument	trdoc:responseDocumentDetails	---	<p>The document detail block embeds detail response message of either type valuationReportAcknowledgement or valuationReportException.</p> <p>The whole block will be absent if document level exception occurs since the system cannot proceed to process individual requests in the request document.</p>	0..1
2.1	/trdoc:valuationResponseDocument/trdoc:responseDocumentDetails	tr:valuationReportAcknowledgement	---	<p>Used only if the purpose of the file is "Valuation".</p> <p>Either the custom valuationReportAcknowledgement or the FpML standard valuationReportException message block will be returned.</p> <p>If the original request is processed successfully, the custom FpML valuationReportAcknowledgement message block will be returned.</p> <p>For detailed format description, refer to appendix G.5.4.</p>	1..2500

Field Reference Number	Field location	Field name	Data Type	Description / Usage Rule	Card.
	/trdoc:valuationResponseDocument/trdoc:responseDocumentDetails/valuationReportAcknowledgement	@fpmlVersion	---	The FpML version. For FpML 5.5, the string “5-5” will be returned.	Req.
2.2	/trdoc:valuationResponseDocument/trdoc:responseDocumentDetails	valuationReportException	---	<p>Used only if the purpose of the file is “Valuation”.</p> <p>Either the standard FpML valuationReportAcknowledgement or valuationReportException message block will be returned.</p> <p>If the original request cannot be processed successfully, an FpML valuationReportException message block will be returned</p> <p>For detailed format description, refer to appendix G.5.5.</p>	1..2500
	/trdoc:valuationResponseDocument/trdoc:responseDocumentDetails/valuationReportException	@fpmlVersion	---	The FpML version. For FpML 5.5, the string “5-5” will be returned.	Req.

G.5.4 valuationReportAcknowledgement Component

The structure of `valuationReportAcknowledgement` block is illustrated in the following diagram:

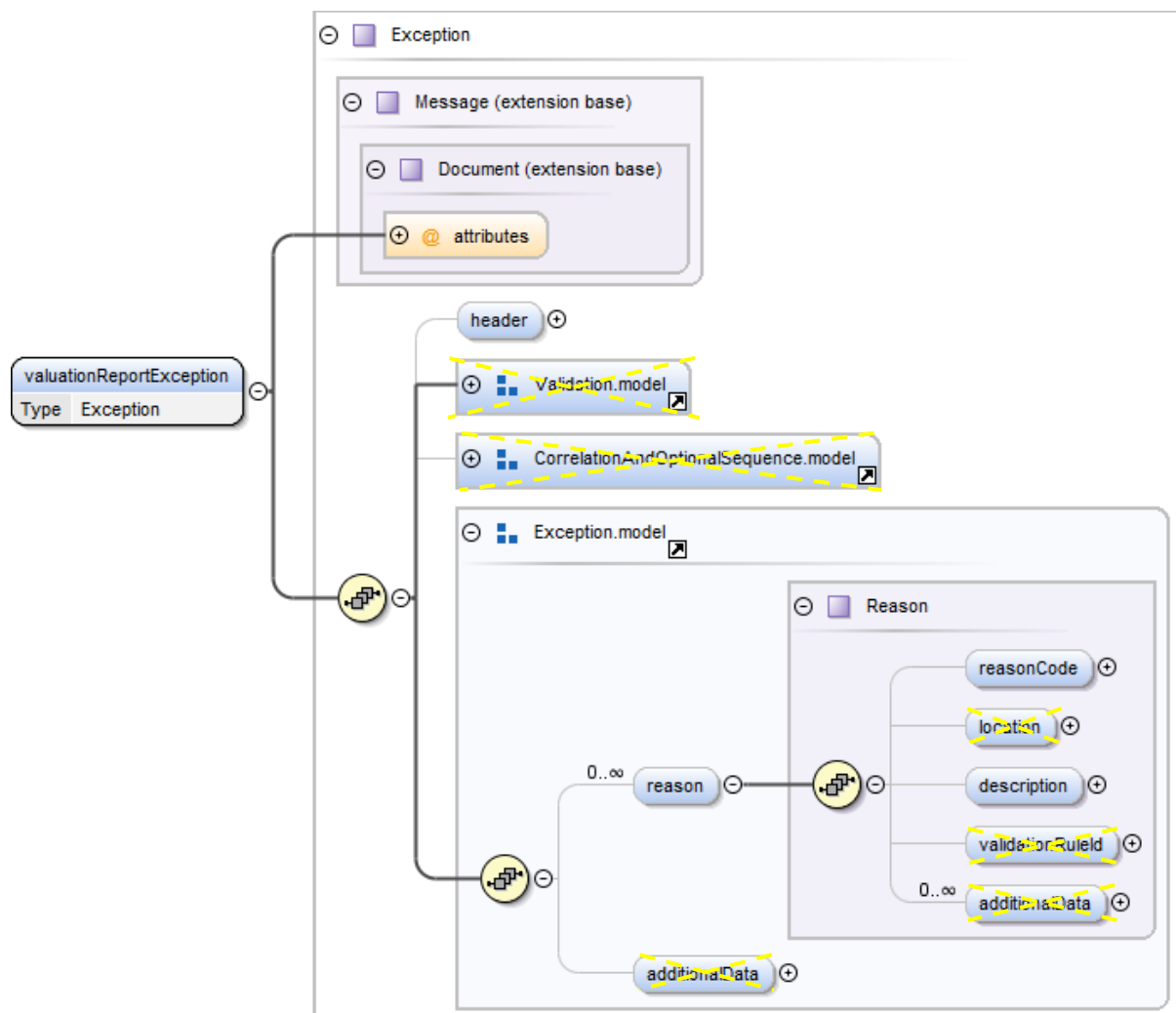


Field Reference Number	Field location	Field name	Data Type	Description / Usage Rule	Card.
1	/	tr:valuationReportAcknowledgement	---		0..U (1..2500)
1.1	/tr:valuationReportAcknowledgement	header	---	A type refining the generic message header content to make it specific to response messages. For detailed layout, refer to appendix G.5.6.1.	0..1 (1..1)
1.2	/tr:valuationReportAcknowledgement	correlationId	xsd:normalizedString (40)	A qualified identifier used to correlate between messages. The HKTR-R system will return the assigned valuation request reference.	0..1 (1..1)
	/tr:valuationReportAcknowledgement /correlationId	@correlationIdScheme	xsd:anyURI	Always returns the HKTR-R system assigned valuation request reference under the URI: “ http://www.hkicl.com.hk/scheme/hktr/valuation-request-ref ”	Req.
1.3	/tr:valuationReportAcknowledgement	onBehalfOf	---	Indicates which party (and accounts) a trade is being processed for. If the original request is submitted by an agent on behalf of reporting party, the field points to the reporting party.	0..4 (0..1)
1.3.1	/tr:valuationReportAcknowledgement/onBehalfOf	partyReference	Reference	The party for which the message receiver should work. The party block should contain the HKTR Entity ID.	0..1 (1..1)
	/tr:valuationReportAcknowledgement/onBehalfOf/partyReference	@href	xsd:IDREF	A reference to a party	Req.
1.4	/tr:valuationReportAcknowledgement	party	---	A legal entity or a subdivision of a legal entity. Parties can perform multiple roles in a trade lifecycle. For example, the principal parties obligated to make payments from time to time during the term of the trade, but may include other parties involved in, or incidental to, the trade, such as parties acting in the role of broker, calculation agent, etc. In FpML roles	0..U (0..50)

Field Reference Number	Field location	Field name	Data Type	Description / Usage Rule	Card.
				are defined in multiple places within a document.	
1.4.1	/tr:valuationReportAcknowledgement/party	partyId	xsd:normalizedString (40)	A party identifier, e.g. a S.W.I.F.T. bank identifier code (BIC). The HKTR-R system returns the HKTR-R system's participant Id. when referring to the submitting party or the reporting parties of the original request.	0..U (1..15)
	/tr:valuationReportAcknowledgement/party/partyId	@partyIdScheme	xsd:anyURI	Party Id. Coding Scheme.	Opt. (Req.)
1.5	/tr:valuationReportAcknowledgement	tr:tradeIdentifier	TradeIdentifier. Refer to section G.4.6.4 for details.	The HKTR-R system will return the TR Trade Reference if the valuation response status is "Completed".	0..1

G.5.5 valuationReportException Component

The structure of `valuationReportException` block is illustrated in the following diagram:

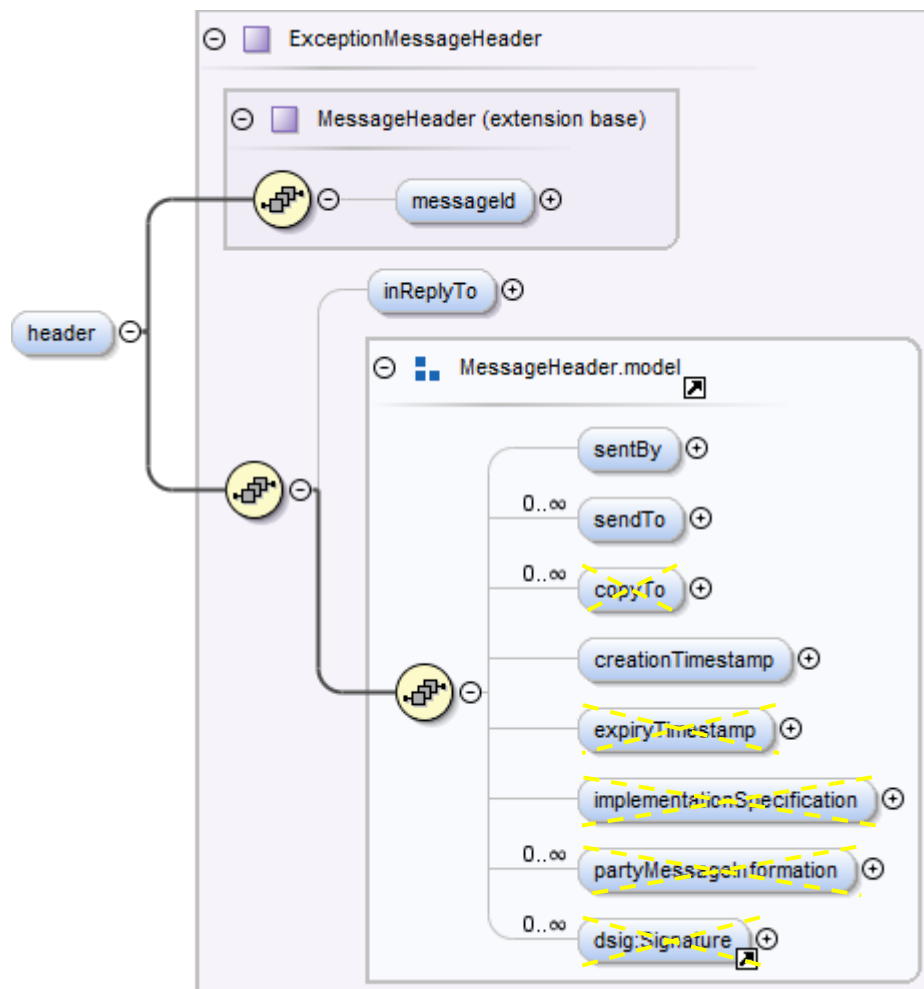


Field Reference Number	Field location	Field name	Data Type	Description / Usage Rule	Card.
2	/	valuationReportException	---		0..U (1..2500)
2.1	/valuationReportException	header	---	A type refining the generic message header content to make it specific to response messages. For detailed layout, refer to appendix G.5.6.1.	0..1 (1..1)
2.2	/valuationReportException	reason	---	An instance of the Reason type used to record the nature of any errors associated with a message.	0..U (1..20)
2.2.1	/valuationReportException/reason	reasonCode	xsd:normalizedString (6)	A machine interpretable error code. Note that the HKTR-R system will return HKTR-R-specific error code, instead of the FpML standard codes	0..1 (1..1)
	/valuationReportException/reason/reasonCode	@reasonCodeScheme	xsd:anyURI	Always returns the HKTR-R coding scheme URI for reason code: " http://www.hkicl.com.hk/scheme/hktr/reporting/reason-code ".	Opt.
2.2.2	/valuationReportException/reason	description	xsd:string (1024)	Plain English text describing the associated error condition	0..1

G.5.6 Common Response Message Elements

G.5.6.1 NotificationMessageHeader / ExceptionMessageHeader Component

valuationReportAcknowledgement message embeds a header component with type NotificationMessageHeader, while valuationReportException message embeds a header component with type ExceptionMessageHeader. These two types share the same structure, as illustrated as follows:



Field Reference Number	Field location (relative to /valuationReportAcknowledgement or /valuationReportException)	Field name	Data Type	Description / Usage Rule	Card.
1	/	header	---	A type refining the generic message header content to make it specific to request messages.	1..1
1.1	/header	messageId	xsd:normalizedString (40)	A unique identifier (within its coding scheme) assigned to the message. It is the unique response ID generated by HKTR-R system.	0..1 (1..1)
	/header/messageId	@messageIdScheme	xsd:anyURI	The HKTR-R system only supports party in coding scheme of " http://www.hkicl.com.hk/scheme/hktr/message-id ".	Req.
1.2	/header	inReplyTo	xsd:normalizedString (40)	A copy of the unique message identifier (within its own coding scheme) to which this message is responding. It is the message ID specified by user on the request message corresponding to this response. In case of the request message is not well-formed, an empty tag of inReplyTo would be presented.	0..1 (1..1)
	/header/inReplyTo	@messageIdScheme	xsd:anyURI	The HKTR-R system only supports party in coding scheme of " http://www.hkicl.com.hk/scheme/hktr/message-id ".	Req.
1.3	/header	sentBy	xsd:normalizedString (35)	The unique identifier (within its coding scheme) for the originator of a message instance. In HKTR-R, it must be "HKTR".	0..1 (1..1)
	/header/sentBy	@messageAddressScheme	xsd:anyURI	As the message must be from HKTR, the URL must be: • " http://www.hkicl.com.hk/scheme/hktr/hktr "	Opt. (Req.)
1.4	/header	sendTo	xsd:normalizedString (35)	A unique identifier (within its coding scheme) indicating an intended recipient of a message. In HKTR-R, it must be the submitting party of the request.	0..U (1..1)

Field Reference Number	Field location (relative to /valuationReportAcknowledgement or /valuationReportException)	Field name	Data Type	Description / Usage Rule	Card.
	/header/sendTo	@messageAddressScheme	xsd:anyURI	It must be one of the followings: <ul style="list-style-type: none"> • "http://www.fpml.org/coding-scheme/external/iso17442" (for HKTR entity using LEI). • "http://www.hkicl.com.hk/scheme/hktr/tr-entity-id" (for HKTR entity using HKTR Entity ID). • "http://www.fpml.org/ext/iso9362" (for HKTR entity using SWIFT BIC) • "http://www.hkicl.com.hk/scheme/cicrn" (for HKTR entity using "Certificate of Incorporation" (CI) or "Certificate of Registration" (CR) Number) • "http://www.hkicl.com.hk/scheme/hkbrn" (for HKTR entity using Hong Kong Business Registration Number) 	Opt. (Req.)
1.5	/header	creationTimestamp	xsd:dateTime	The date and time (on the source system) when this message instance was created.	0..1 (1..1)

G.6 Required Fields for Reporting Requirement

The following sections describe fields for each product sub-type that must be reported to HKTR-R once they are changed (Reporting Requirement).

For the “Reporting Requirement” column in the tables described in the following sub-sections:

- “R” – Required when applicable to the reportable transaction.
- “O” – Optional to the reportable transaction.

Field Name	FpML path relative to the root element (if not otherwise specified)	Reporting Requirement (according to the consultation paper on expanded mandatory reporting published on 30 September 2015, the exact effective date of the expanded mandatory reporting rule - TBA)
Action	<u>For AddOrModify action</u> /valuationReport <u>For Delete action</u> /tr:valuationReportRetracted	R
Valuation Request ID	<u>For AddOrModify action</u> /valuationReport/header/messageId <u>For Delete action</u> /tr:valuationReportRetracted/header/messageId	R
Trade Reference (for trade correlation)	<u>For AddOrModify action</u> /valuationReport/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme=" http://www.hkicl.com.hk/scheme/hktr/trade-ref " <u>For Delete action</u> /tr:valuationReportRetracted/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme=" http://www.hkicl.com.hk/scheme/hktr/trade-ref "	R
Agent Trade Reference (for trade correlation)	<u>For AddOrModify action</u> /valuationReport/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme=" http://www.hkicl.com.hk/scheme/hktr/agent-trade-ref "	R

Field Name	FpML path relative to the root element (if not otherwise specified)	Reporting Requirement (according to the consultation paper on expanded mandatory reporting published on 30 September 2015, the exact effective date of the expanded mandatory reporting rule - TBA)
	For Delete action /tr:valuationReportRetracted/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.hkicl.com.hk/scheme/hktr/agent-trade-ref"	
User Trade Reference (for trade correlation)	For AddOrModify action /valuationReport/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.hkicl.com.hk/scheme/hktr/user-trade-ref" For Delete action /tr:valuationReportRetracted/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.hkicl.com.hk/scheme/hktr/user-trade-ref"	R
UTI – Issuer ID (for trade correlation)	For AddOrModify action /valuationReport/tradeValuationItem/partyTradeIdentifier/issuer/@issuerScheme="http://www.fpml.org/coding-scheme/external/cftc/issuer-identifier" For Delete action /tr:valuationReportRetracted/tradeValuationItem/partyTradeIdentifier/issuer/@issuerScheme="http://www.fpml.org/coding-scheme/external/cftc/issuer-identifier"	R
UTI – UTI value (for trade correlation)	For AddOrModify action /valuationReport/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.fpml.org/coding-scheme/external/unique-transaction-identifier" For Delete action /tr:valuationReportRetracted/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.fpml.org/coding-scheme/external/unique-transaction-identifier"	R
UTI-TIID (for trade correlation)	For AddOrModify action /valuationReport/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.hkicl.com.hk/scheme/unique-transaction-identifier-unique-trade-id" For Delete action /tr:valuationReportRetracted/tradeValuationItem/partyTradeIdentifier/tradeId/@tradeIdScheme="http://www.hkicl.com.hk/scheme/unique-transaction-identifier-unique-trade-id"	R

Field Name	FpML path relative to the root element (if not otherwise specified)	Reporting Requirement (according to the consultation paper on expanded mandatory reporting published on 30 September 2015, the exact effective date of the expanded mandatory reporting rule - TBA)
Valuation Date for Deletion	/tr:valuationReportRetracted/tr:valuationDate	R
Valuation Date Time	/valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/time where /valuationSet/assetValuation/@id equals "reportingForParty"	R
Valuation Value - Currency	/valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/currency where /valuationSet/assetValuation/@id equals "reportingForParty"	R
Valuation Value - Amount	/valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/value where /valuationSet/assetValuation/@id equals "reportingForParty"	R
Valuation Type	/valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/measureType where /valuationSet/assetValuation/@id equals "reportingForParty"	R

G.7 Summary of Coding Schemes

Below is a summary of coding schemes that can be used within the HKTR-R system for valuation purpose. If the value in the “Default” column is “Y”, it means that the corresponding coding scheme is the default value, and will simply be ignored by the HKTR-R system.

Attribute name	Relevant Elements	Coding scheme URI	Usage	Default
messageIdScheme	<ul style="list-style-type: none"> /valuationReport/header/messageId /tr:valuationReportRetracted/header/messageId /tr-ext:valuationReportAcknowledgement/header/messageId /valuationReportException/header/messageId 	http://www.hkicl.com.hk/scheme/hktr/message-id	For specifying the request /response message ID.	Y
messageAddressScheme	<ul style="list-style-type: none"> /valuationReport/header/sentBy /tr:valuationReportRetracted/header/sentBy 	http://www.fpml.org/coding-scheme/external/iso17442	For specifying LEI of the HKTR entity	
		http://www.hkicl.com.hk/scheme/hktr/tr-entity-id	For specifying HKTR Entity ID.	
		http://www.fpml.org/ext/iso9362	For specifying SWIFT BIC of the HKTR entity.	
		http://www.hkicl.com.hk/scheme/cicrn	For specifying “Certificate of Incorporation” (CI) or “Certificate of Registration” (CR) Number of the HKTR entity.	
		http://www.hkicl.com.hk/scheme/hkbrn	For specifying Hong Kong Business Registration Number of the HKTR entity.	
		http://www.hkicl.com.hk/scheme/hktr/hktr	Specifically used to specify the HKTR party. Example use: For specifying the sent-by party in response message.	
correlationIdScheme	<ul style="list-style-type: none"> /tr:valuationReportAcknowledgement/correlationId 	http://www.hkicl.com.hk/scheme/hktr/valuation-request-ref	For specifying the HKTR-R system assigned valuation request reference.	

Attribute name	Relevant Elements	Coding scheme URI	Usage	Default
			Used in acknowledgement response message only.	
partyIdScheme	<ul style="list-style-type: none"> /valuationReport/party/partyId 	http://www.fpml.org/coding-scheme/external/iso17442	For specifying Legal Entity Identifier.	
		http://www.hkicl.com.hk/scheme/hktr/tr-entity-id	For specifying HKTR Entity ID.	
		http://www.fpml.org/ext/iso9362	For specifying SWIFT BIC	
		http://www.hkicl.com.hk/scheme/cicrn	For specifying “Certificate of Incorporation” (CI) or “Certificate of Registration” (CR) Number	
		http://www.hkicl.com.hk/scheme/hkbrn	For specifying Hong Kong Business Registration Number	
		http://www.hkicl.com.hk/scheme/hktr/user-defined	For specifying user defined identifier	
		http://www.hkicl.com.hk/scheme/hktr/masked-party-id	For specifying a masked party ID, for use when the counterparty’s identity is not to be disclosed.	
reasonCodeScheme	<ul style="list-style-type: none"> /valuationReportException/reason/reasonCode 	http://www.hkicl.com.hk/scheme/hktr/reporting/reason-code	For specifying the response code of the individual request. These are the HKTR-R-specific reason codes.	Y
assetMeasureScheme	<ul style="list-style-type: none"> /valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/measureType 	http://www.hkicl.com.hk/scheme/hktr/valuation-type	<p>For specifying the type of valuation.</p> <p>For a list of its eligible values, please refer to the “Valuation Type” worksheet in the excel document “Reporting - Ref - Enumerations and coding schemes.xls”.</p>	Y
currencyScheme	<ul style="list-style-type: none"> /valuationReport/tradeValuationItem/valuationSet/assetValuation/currency 	http://www.fpml.org/ext/iso4217-2001-08-15	The ISO standard 4217 for currency.	Y

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Attribute name	Relevant Elements	Coding scheme URI	Usage	Default
	ation/quote/currency		For a list of its eligible values, please refer to the "Currency" worksheet in the excel document: "Reporting - Ref - Enumerations and coding schemes.xls".	
informationProviderScheme	<ul style="list-style-type: none"> /valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/informationSource/rateSource 	http://www.hkicl.com.hk/scheme/hktr/valuation-source	For specifying the information for obtaining a market rate.	Y
pricingModelScheme	<ul style="list-style-type: none"> /valuationReport/tradeValuationItem/valuationSet/assetValuation/quote/pricingModel 	http://www.hkicl.com.hk/scheme/hktr/valuation-reference-model	For specifying the reference model used to calculate daily mark.	Y
issuerIdScheme	<ul style="list-style-type: none"> [PartyTradeIdentifier]/issuerId 	http://www.fpml.org/coding-scheme/external/cftc/issuer-identifier	For specifying the issuer ID of the issuer of UTI.	Y
tradeIdScheme	<ul style="list-style-type: none"> [PartyTradeIdentifier]/tradeId 	http://www.hkicl.com.hk/scheme/hktr/trade-ref	For specifying the HKTR-R system assigned trade identifier.	
		http://www.fpml.org/coding-scheme/external/unique-transaction-identifier	<p>For specifying the Unique Trade Identifier (UTI).</p> <p>UTI specified by the HKTR only includes the Unique Swap Identifier (USI) required to be reported by the US Commodity Futures Trading Commission's (CFTC) regulations for recording keeping and swap data reporting purposes.</p> <p>The value of specified UTI should be presented in conformity with the format and structure applicable to it.</p>	
		http://www.hkicl.com.hk/scheme/hktr/agent-trade-ref	For specifying the Agent Trade Reference.	
		http://www.hkicl.com.hk/scheme/hktr/user-trade-ref	For specifying the User Trade Reference.	

Attribute name	Relevant Elements	Coding scheme URI	Usage	Default
		http://www.hkicl.com.hk/scheme/unique-transaction-identifier-unique-trade-id	<p>If a unique Trade ID (TID) reportable under the mandatory reporting requirements in the European Union exists for the trade, the value of the TID, presented in conformity with the format and structure applicable to it. Definition of the TID can be found at:</p> <p>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:052:0001:0010:EN:PDF</p> <p>Users may refer to the updates of the website from time to time.</p>	

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