

Data delivery – Schemas – Cancellation data

Project to establish the National Incomes Register

Version history

Version	Date	Description
1.0	12/06/2017	Document published.
1.01	31/08/2017	The Timestamps section in the General segment has been renamed as Dates and times. The processing of dates and times is clarified in the paragraph.
1.02	14/11/2017	Clarified the processing rule of the ProductionEnvironment element. Added an electronic signature: data group Signature (Signature) at the main level of a record. The xs:boolean data type was changed to the irct:trueOrFalse (IRCommonTypes.xsd) data type. Clarified the interpretation rules of upper and lowercase characters in the General/Character set section. Added the namespace of the XML signature schema in the General/Schema section.
1.03	29/01/2018	Changed the Signature element from mandatory to voluntary. Clarified the processing rules related to data groups: Record owner (DeliveryDataOwner) Record creator (DeliveryDataCreator) Record submitter (DeliveryDataSender) Signature (Signature) Clarified the processing rules for the element Items to be cancelled: The item to be cancelled must be valid (=not cancelled). This concerns incomes payment reports, records and record subscriptions.
1.04	11/06/2018	Clarified the allowed character encoding for reference data under Character set. Made changes related to the processing of benefits payment data.
1.05	26/09/2018	Specified in the section Dates and times that the example in the Finnish time zone concerns standard time: Example in the Finnish time zone (standard time, UTC+2)

CONTENTS

1	General	4
1.1	Schema	4
1.2	Character set	4
1.3	Dates and times.....	5
1.4	Document reading instructions.....	5
2	Cancellation data (InvalidationsToIR)	7
2.1	Record data (DeliveryData)	8
2.2	Items to be cancelled (Items)	12



1 GENERAL

1.1 Schema

Cancellation data is submitted to the Incomes Register using the **InvalidationsToIR** schema.

The namespaces of the schema are as follows:

File name	Prefix	Namespace
	xmlns:xs	http://www.w3.org/2001/XMLSchema
InvalidationsToIR.xsd	xmlns:itir	http://www.tulorekisteri.fi/2017/1/InvalidationsToIR
InvalidationsToIRTypes.xsd	xmlns:itirt	http://www.tulorekisteri.fi/2017/1/InvalidationsToIRTypes
IRCommonTypes.xsd	xmlns:irct	http://www.tulorekisteri.fi/2017/1/IRCommonTypes
xmldsig-core-schema.xsd	xmlns:ds	http://www.w3.org/2000/09/xmldsig#

Empty elements are not allowed in the messages. If an element receives no value, the element is left out of the message entirely. Empty character strings are also not allowed, i.e., the minimum length of all values is 1.

1.2 Character set

The schemas of the Incomes Register use UTF-8, which is the default character set of XML. The file must not contain the Byte Order Mark (BOM) character.

The following table presents the requirements for the conversion of special characters appearing in messages.

Character	Description	Presentation format as an entity
&	ampersand	& conversion is mandatory
<	less than	< conversion is mandatory
>	greater than	> conversion is not mandatory, but conforms with best practices
'	apostrophe	' conversion is not mandatory, but conforms with best practices
"	quotation mark	" conversion is not mandatory, but conforms with best practices
--	double hyphen	This character must not appear in an XML file
/*	slash asterisk	This character must not appear in an XML file
&#	ampersand hash	This character must not appear in an XML file

A limited character set is allowed for **reference data**. The allowed characters for the reference data listed below are the numbers 0-9, the letters a-z and A-Z and the symbols " _ " and "-".

- Record owner's record reference (DeliveryId)
- Payer's report reference (ReportId)
- Subscriber's primary subscription reference (MainSubscriptionId)
- Subscriber's secondary subscription reference (SubscriptionId)
- Sender's message reference (MessageId)

In the following data items, upper and lowercase characters are significant:

- Country codes in all data groups (for example, "DE" is interpreted to be a different code than "De").
- Customer IDs in all data groups (for example, "150172-999H" is interpreted to be a different ID than "150172-999h").

1.3 Dates and times

Dates (data type xs:date) must not include time zone information. Example of a date:

```
<StartDate>2017-05-11</StartDate>
```

Data elements containing times of day (data types xs:dateTime and xs:time) must include the time zone.

Example in the Finnish time zone (standard time, UTC+2):

```
<Timestamp>2017-05-11T08:00:00+02:00</Timestamp>
```

```
<Time>08:00:00+02:00</Time>
```

Example in UTC time (UTC+0):

```
<Timestamp>2017-05-11T6:00:00Z</Timestamp>
```

```
<Time>06:00:00Z</Time>
```

1.4 Document reading instructions

In the document diagrams, the 0 .. ∞ marking in the bottom right-hand corner of an element means that the element may appear several times, or not at all. The 1 .. ∞ marking means that the element may appear several times, but must always appear at least once. The mandatory elements are highlighted with a solid border line and voluntary elements with a dashed border line.

In the document tables, the mandatory or voluntary nature of the elements is depicted with the following markings:

V/M	Description
V	The element is always voluntary.
M	The element is mandatory if its "parent element" is included.
V/M	The element is conditionally mandatory. The data processing rules describe the situations in which the element is mandatory.

In some elements, messages use a limited range of values, i.e. codes. The possible values of these codes are described in the "Codes" document. This document refers to the values presented in the codesets using the term "codes".

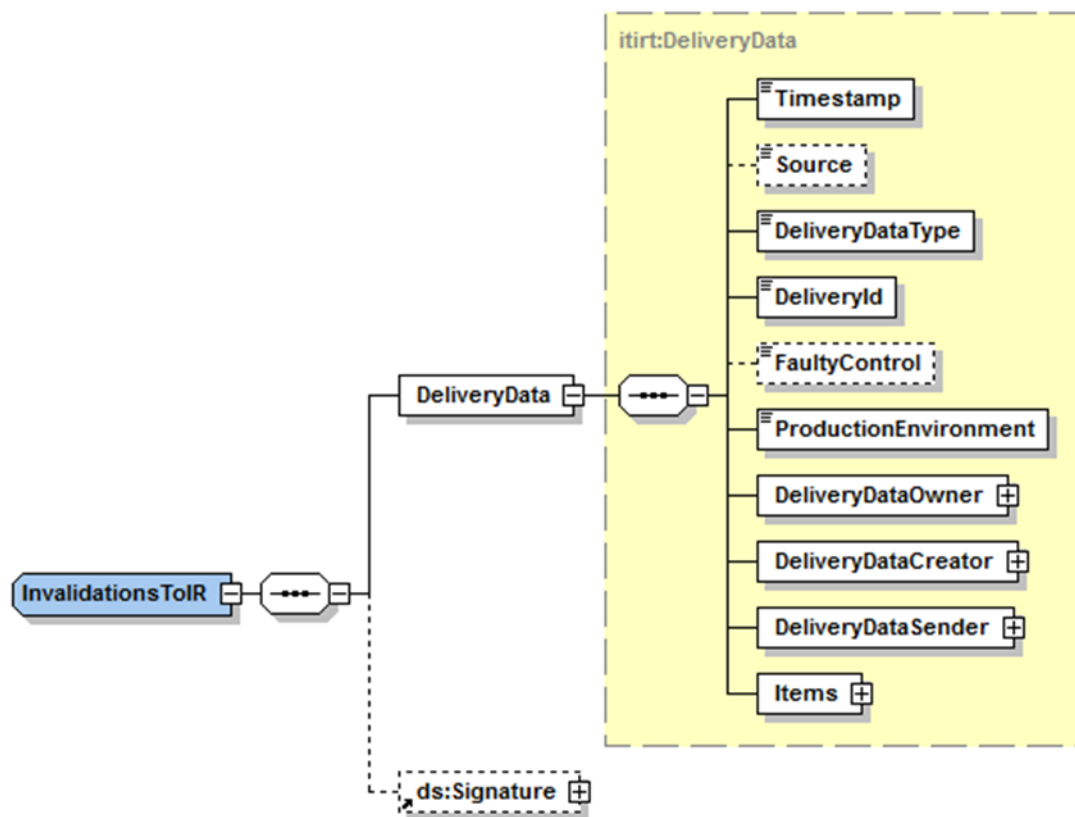


2 CANCELLATION DATA (INVALIDATIONSTOIR)

The general structure of a record containing cancellation data submitted to the Incomes Register is as follows:

Record name	Type	V/M
Details of the received record (DeliveryData)	itirt:DeliveryData	M
Items to be cancelled (Items)	itirt:Items	M
Item to be cancelled (Item)	itirt:Item	M
Signature (Signature)	xsig:SignatureType	V/M

2.1 Record data (DeliveryData)



Data group details:

Data designation	Type	Allowed values	V/ M	Processing rule
Record data (DeliveryData)	itirt:DeliveryData		M	
Time of record creation (Timestamp)	xs:dateTime		M	
Data source (Source)	irct:String30		V/M	Mandatory data, if the cancellation concerns earnings payment reports or

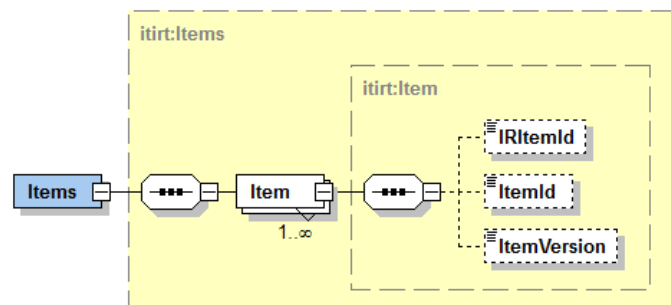
				employer's separate reports (DeliveryDataType is 105, 106, 109 or 110).
Record type (DeliveryDataType)	xs:int	Codes: DeliveryDataType and values 105, 106, 107, 108, 109, 110, 111, 112 from it	M	
Record owner's record reference (DeliveryId)	irct:String40		M	<p>The record owner's record reference must uniquely identify the cancellation data of the submitting party (DeliveryDataOwner) record type specifically (DeliveryDataType).</p> <p>Example 1: The record reference must uniquely identify all those records of a specific payer (DeliveryDataOwner) that contain cancellations of earnings payment reports (DeliveryDataType=105).</p> <p>Example 2: The record reference must uniquely identify all those records of a specific subscriber (DeliveryDataOwner) that contain a cancellation of a record subscription (DeliveryDataType=108).</p> <p>Example 3: The record reference must uniquely identify all those records of a specific payer (DeliveryDataOwner) that contain cancellations of benefits payment reports (DeliveryDataType=107).</p>
Rule for processing invalid data (FaultyControl)	xs:int	Codes: FaultyControl	V/M	Mandatory data for those cancellation records that may contain cancellations of several items (DeliveryDataType is 105, 106 or 107).
Production environment (ProductionEnvironment)	irct:trueOrFalse	Codes: ProductionEnvironment	M	<p>If the value is "true", the data must have been delivered to the Incomes Register's production environment.</p> <p>If the value is "false", the data must have been delivered to the Incomes Register's test environment.</p>
Record owner (DeliveryDataOwner)	itirt:Id		M	<p><u>Cancellation of incomes payment reports (record types 105, 106, 107, 109, 110, 111):</u></p> <p>The payer has a customer ID and the payer reports the data: The data item <i>Record owner</i> is the identifier of the payer. If the payer has a business ID, it must be specified as the Record owner. The Record owner (= payer) must be specified as the <i>Record creator</i>. The Record owner (= payer) must be specified as the <i>Record submitter</i>.</p> <p>The payer has a customer ID and the service provider submits the data on behalf of the payer: The data item <i>Record owner</i> is the identifier of the payer. If the payer has a business ID, it must be specified as the Record owner. The identifier of the service provider must be specified as the <i>Record creator</i>. If</p>

				<p>the service provider has a business ID, it must be specified. It must be specified in the Incomes Register that the service provider has the right to submit records on behalf of others.</p> <p>The Record creator (= service provider) must be specified as the <i>Record submitter</i>.</p> <p>The payer has no customer ID and the service provider submits the data on behalf of the payer:</p> <p>The identifier of the service provider must be specified as the <i>Record owner</i>. If the service provider has a business ID, it must be specified. It must be specified in the Incomes Register that the service provider has the right to submit records on behalf of others.</p> <p>The Record owner (= service provider) must be specified as the <i>Record creator</i>. The Record owner (= service provider) must be specified as the <i>Record submitter</i>.</p> <p><u>Cancellation of record subscriptions (record types 108, 112)</u></p> <p>Identical to the cancellation of incomes payment reports, except that the organisation that has placed the record subscription, i.e. the organisation whose data access rights are used in the record query, is regarded as the payer. The subscriber organisation must always have a customer ID.</p>
Identifier type (Type)	xs:int	Codes: IdType	M	
Identifier (Code)	irct:String30		M	<p>If the "Identifier type" is "Business ID", the identifier must exist (according to information from the Business Information System (YTJ)).</p> <p>If the "Identifier type" is "Finnish Personal Identification Number", the identifier must exist (according to information from the Population Information System (VTJ)).</p>
Country code (CountryCode)	irct:String2	A two-character code in accordance with the ISO 3166 country codes. If the country is unknown, the value "99" is entered.	V/M	Mandatory data if "Identifier type" is other than "Business ID" or "Finnish Personal Identification Number".
Country name (CountryName)	irct:String70		V/M	Mandatory data if "Country code" is "99".
Record creator (DeliveryDataCreator)	itirt:Id		M	The processing rules for Identifier type, Identifier, Country code and Country name are the same as in the Record owner (DeliveryDataOwner) data group.
Record submitter (DeliveryDataSender)	itirt:Id		M	The processing rules for Identifier type, Identifier, Country code and Country name are the same as in the Record owner (DeliveryDataOwner) data group.

Items to be cancelled (Items)	itirt:Items		M	
Signature (Signature)	xsig:SignatureType		V/M	<p>The electronic signature of the record is delivered in this data group. The record must be signed using the certificate of the party specified as the Record creator.</p> <p>The element is voluntary in connection with records submitted through the upload/download service.</p>



2.2 Items to be cancelled (Items)



Data group details:

Data designation	Type	Allowed values	V/ M	Processing rule
Items to be cancelled (Items)	itirt:Items		M	
Item to be cancelled (Item)	itirt:Item		M	<p>There may be several items to be cancelled, if the record type (DeliveryDataType) is 105, 106 or 107. Otherwise, there may only be one item to be cancelled.</p> <p><u>Cancellation of reports</u></p> <p>If the record type is cancellation of earnings payment reports, employer's separate reports or benefits payment reports (DeliveryDataType is 105, 106 or 107), the payer's report reference (ItemId) and/or the Incomes Register report reference (IRItemId) must be specified. The version number (ItemVersion) of the report to be cancelled can also be specified. The report to be cancelled is searched for in the Incomes Register using all specified data (with the AND operator).</p> <p>The report to be cancelled must be a valid (=not cancelled) report. If a version number has been specified, it must be that of the latest version of the report in the Incomes Register. If a version number has not been specified, the latest version is cancelled.</p>

				<p><u>Cancellation of a record subscription</u></p> <p>If the record type is cancellation of a record subscription (DeliveryDataType is 108), the subscriber's primary subscription reference (ItemId) and/or the Incomes Register primary subscription reference (IRItemId) must be specified. The record subscription to be cancelled is searched for in the Incomes Register using all specified data (with the AND operator).</p> <p>The primary subscription to be cancelled must be valid (=not cancelled), and no record queries must have been performed based on it.</p> <p><u>Cancellation of a record containing reports</u></p> <p>If the record type is cancellation of a record containing earnings payment reports, employer's separate reports or benefits payment reports (DeliveryDataType is 109, 110 or 111), the record submitter's (payer's) record reference (ItemId) and/or the Incomes Register record reference (IRItemId) must be specified. The record to be cancelled is searched for in the Incomes Register using all specified data (with the AND operator).</p> <p>The record to be cancelled must be valid (=not cancelled). The record to be cancelled can also contain previously cancelled reports. Only reports that are still valid are cancelled.</p> <p><u>Cancellation of a record containing a record subscription</u></p> <p>If the record type is cancellation of a record containing a record subscription (DeliveryDataType is 112), the record submitter's (subscriber's) record reference (ItemId) and/or the Incomes Register record reference (IRItemId) must be specified. The record to be cancelled is searched for in the Incomes Register using all specified data (with the AND operator).</p> <p>The record to be cancelled must be valid (=not cancelled). No record queries must have been made based on the primary subscription. The primary subscription is cancelled during the cancellation of the record, if the primary subscription is still valid.</p>
Incomes Register reference of the item to be cancelled (IRItemId)	irct:Guid		V/M	
Reference of the owner of the item to be cancelled (ItemId)	irct:String40		V/M	
Version number of the item to be cancelled	xs:int		V	The version number of the report to be cancelled.

(ItemVersion)				This data can be entered only if the record type is cancellation of earnings payment reports, employer's separate reports or benefits payment reports (DeliveryDataType is 105, 106 or 107).
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