



-ZODIAK ICS XML Interface – General Information

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Change history

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Change requests

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Used tools

Number	Used tools
W1	This document has been created using <i>Microsoft Word 2010</i> .

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1. Please note that no liability claims can be derived towards DAKOSY AG for the content of this manual, despite careful development and examination of this document!

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1 Introduction

Aside from EDIFACT and Cargo-IMP formats, ZODIAK ICS offers an XML interface as well.

This interface employs the same basic structures used with the ZODIAK/BOX interface. However, there are some differences regarding the exact implementation and function set available. Therefore this document aims to describe the usage of the general data types / elements / messages used when communicating with ZODIAK ICS via XML.

2 Encoding and XML Header

Messages sent to the ZODIAK ICS XML Interface **must** be encoded using ISO-8859-15 or UTF-8.

If ISO-8859-15 is used, this **must** also be specified in the messages' header

```
<?xml version="1.0" encoding="iso-8859-15" ?>
```

If a customer intends to change the encoding from ISO to UTF-8 or vice versa he should notify DAKOSY in advance.

3 Characters to be used

As specified in the previous chapter, DAKOSY allows for messages to be encoded using either ISO-8859-15 or UTF-8.

However, this does not mean that customs will accept the full character set covered by these standards.

In fact, most customs agencies will only accept printable ASCII characters and the whitespace character (Hex 0x20), but no tabulators, carriage returns, line feeds etc.

DAKOSY will accept and try to forward data to customs as it is send by the customers for now, but reserves itself the right to change this policy in the future, i.e. DAKOSY might decide to reject messages containing characters not acceptable to customs.

If DAKOSY should decide to do so, customers will be informed in advance in accordance with existing contracts.

4 Message Structure & Message Types

Each Message within the ZODIAK ICS XML Interface (except for the Acknowledgement) follows the same basic structure

```

ICSMessage
+-Transaction
+-Messages
  +-[Message Name]
    +-Header
    +-...
  
```

The “Message Name” Element’s Name designates the type of message. The following table describes the relation of XML Message Names to TAXUD Message Names.

XML Message Name	TAXUD Message Name(s)	Remark / Description
EntrySummaryDeclaration	E_ENS_DAT E_ENS_AMD	TypeOfDeclaration determines the exact type of message (see 3.3)
EntrySummaryDeclarationAck	E_ENS_ACK E_ENS_AAC	TypeOfDeclaration determines the exact type of message (see 3.3)
CustomsAcknowledgement	E_ENS_REJ E_ENS_ARJ E_ENS_STA E_DIV_ACK E_DIV_REJ E_ARN_VAL E_ARN_REJ	
DiversionRequestImport	E_DIV_REQ	
ArrivalNotification	E_ARN_ENT	
AdvancedInterventionNotification	E_AIV_NOT	
Acknowledgment		Technical / Functional response message from DAKOSY, therefore no relation to a TAXUD message.

5 ZODIAK ICS XML Interface – Metadata Types

5.1 Introduction

Each message – except for the “Acknowledgement” used within the ZODIAK ICS XML Interface – contains two elements before the actual “payload”:

- <Transaction>
- <ObjectIdentification>

These elements carry basic message information such as technical references, sender/receiver codes etc., in this regard they are similar to UNB/UNH/BGM in EDIFACT.

The following two sections describe each of the fields used in these elements in detail:

5.2 The <Transaction> Element

The Transaction element describes most basic message information. It contains the following fields:

Element Name	Field Contents / Descr.
IOPartner	This is the participant code (usually the DAKOSY participant code) of the sending resp. receiving party. For messages *to* DAKOSY it is the sender code, for messages *from* DAKOSY it will be set to the recipient's code.
IODivision	IODivision1, 2 and 3 are currently not used within ZODIAK ICS
IOReference	This is a technical reference assigned by the message sender. It should be unique so that it can be used to distinguish an individual message from all other messages sent by a participant.
IODateTime	This is set to the date and time when the message is generated.
Version	This specifies the interface version used. The current version as of September 10 th , 2010 is '007'

5.3 The <ObjectIdentification> Element

Depending on whether an inbound or an outbound message is concerned, the message's <ObjectIdentification> element contains different fields. These are described in the following two sections:

5.3.1 ObjectIdentification for inbound messages (Customer to DAKOSY)

Element Name	Field Contents / Descr.
LocalReferenceNumber	The Local Reference Number is a technical identifier which is supposed to serve as a customer's reference to an individual ENS declaration. It should be unique among all of the declarations made by the customer.
ObjectAction	When sending data to ZODIAK ICS there should always be two occurrences of the <ObjectAction> element within the message. The first one should have a value 'CREATE', the second one should have a value 'SEND'.
TypeOfDeclaration	This field can take the values 'ORIGINAL' or 'UPDATE'. It is used to distinguish between ENS Declaration and ENS Amendment messages. I.e. sending an EntrySummaryDeclaration with TypeOfDeclaration = 'ORIGINAL' will result in an E_ENS_DAT being sent to customs. The same but with 'UPDATE' as TypeOfDeclaration will result in an E_ENS_AMD. In turn, an EntrySummaryDeclarationAck with TypeOfDeclaration = 'ORIGINAL' refers to an E_ENS_ACK, while the same message with TypeOfDeclaration = 'UPDATE' describes an E_ENS_AAC.
Operator	This field is optional. When a message is sent from the customer's inhouse system to DAKOSY, it can be used to refer to the user who keyed in and sent the message.

5.3.2 ObjectIdentification for outbound messages (DAKOSY to Customer)

Element Name	Field Contents / Descr.
ObjectName	This field will carry the value of the Local Reference Number; it is included mainly for compatibility with existing ZODIAK BOX schemas.
ObjectAlias	This field will not be filled in in messages sent from ZODIAK ICS.
TypeOfDeclaration	(see 2.3.1)
OriginalMessageName	For messages sent from customs, this field contains the TAXUD name of the original message (E_DIV_ACK, for example)
TransactionReference	This field contains the IOReference of the original message to which this message is related. I.e. if an EntrySummaryDeclaration had an IOReference '1234', the CustomsAcknowledgement will have value '1234' in this TransactionReference field.
EDIFACTMessageNo	If the ZODIAK ICS XML message is used to forward information from customs to the customer, this field will contain the technical message reference of the customs' message.

DateOfReceipt	If the ZODIAK ICS XML message is used to forward information from customs to the customer, this field will contain the date and time the customs message was received at DAKOSY.
EventSeverity	This will be set to: <ul style="list-style-type: none">• OKAY for positive acknowledgement messages from DAKOSY or Customs• ERROR for negative acknowledgement messages from DAKOSY or Customs• WARNING for the AdvancedInterventionNotification
EventLocation	This will be set depending on the type of message. The EventLocation informs whether an Okay/Error/Warning originated from DAKOSY or from a customs agency.

6 Basic Message Flow

The diagram on the following page depicts the basic message flow within ZODIAK ICS. In general, each message inbound from a customer will be replied to by DAKOSY with an “Acknowledgement” Message. This will either notify the customer of a successful processing of his message or inform him about any technical/functional errors which occurred.

