



# ISO 20022 Payments

Swiss Implementation Guidelines  
for Customer-Bank Messages  
for the Swiss Direct Debit Procedure

Customer Direct Debit Initiation (pain.008)



### **General note**

Any suggestions or questions relating to this document should be addressed to the financial institution in question or to SIX Interbank Clearing Ltd at the following address: [pm@six-group.com](mailto:pm@six-group.com).

### **Amendment control**

All the amendments carried out on this document are listed in an amendment record table showing the version, the date of the amendment and a brief amendment description.

### **Change of name from "BC number" (BC No.) to "Institutional identification" (IID)**

The concept of the BC number, short for Bank Clearing Number, has been out-of-date since at least 2010, when the Swiss National Bank provided access to the SIC system also to participants without the status of a bank, such as insurance companies. Furthermore, this number is used not only for the clearing of payments, but also for information that goes beyond the various payment traffic infrastructures. One example is the function of the BC number as part of the IBAN, a form of bank account number that can be used for many purposes.

This is why the Swiss Recommendations will in future use "IID" (institutional identification) instead of "BC no.".

## Amendment control

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<i>Version</i>	<i>Date</i>	<i>Amendment description</i>
1.0	10.08.2015	First edition
1.0.1	21.12.2015	<p>Publication as a "minor" version with the following amendments:</p> <p>Section 1.3.3: Description of the Swiss DD message standard expanded and made more detailed.</p> <p>Section 1.5: Status description presented as a table and expanded.</p> <p>Section 2.2.2: Amendments to the following elements:</p> <ul style="list-style-type: none"> <li>• PmtInf/CdtrAcct/Id/Othr/Id (Index 2.20) Direct debit type-specific definition for "CH-TA" deleted.</li> <li>• PmtInf/CdtrAgt/FinInstnId/Othr/Id (Index 2.21) Element for ISR participant number added to schema.</li> <li>• PmtInf/UltmtCdtr/Nm (Index 2.23) Length restricted to 70 characters.</li> </ul> <p>Section 2.2.3: Amendments to the following elements:</p> <ul style="list-style-type: none"> <li>• DrctDbtTxInf/PmtId/EndToEndId (Index 2.31) Text of the direct debit type-specific definition added.</li> <li>• DrctDbtTxInf/UltmtCdtr/Nm (Index 2.69) and DrctDbtTxInf/UltmtDbtr/Nm (Index 2.74) Length restricted to 70 characters.</li> <li>• DrctDbtTxInf/RmtInf (Index 2.88) Text of the general definition deleted.</li> <li>• DrctDbtTxInf/RmtInf/Ustrd (Index 2.89) and DrctDbtTxInf/RmtInf/Strd (Index 2.90) Text of the general definition expanded.</li> <li>• DrctDbtTxInf/RmtInf/Strd/CdtrRefInf/Tp/CdOrPrtry/Prtry (Index 2.114) (Text of the general definition corrected: Code for ISR reference number is ESR)</li> </ul> <p>Section 2.4.2: Graphical representation of the example updated.</p> <p>Appendix A: New XML schema "pain.008.01.02.ch.03".</p>
1.1	25.07.2016	<p>Title page and colour scheme for tables and illustrations amended to comply with the new Brand Identity Guidelines.</p> <p>Various textual changes/standardisations throughout the document.</p> <p>Explanation of the change from BC no. to IID added to the Foreword.</p> <p>All details of the Customer Payment Status Report (pain.002) removed to a separate Implementation Guideline.</p> <p>Section 1.2: Reference documents updated.</p> <p>Appendix D: Basis for the Swiss recommendations added.</p>

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# 1 Introduction

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The Swiss recommendations for implementing the message standards for Payments Initiation and Cash Management based on ISO standard 20022 have been produced on the instructions of PaCoS (Payments Committee Switzerland), a committee under the Swiss Payments Council (SPC). This version is based on the ISO Maintenance Release 2009 and the latest EPC recommendations.

The Swiss recommendations consist of the following documents:

- Swiss Business Rules
- Swiss Implementation Guidelines
  - for Credit Transfer (pain.001)
  - for the Swiss direct debit procedure (pain.008) (this document)
  - for the SEPA direct debit procedure (pain.008)
  - for Cash Management messages (camt.052, camt.053 and camt.054)
  - for Status Report (pain.002)
- Swiss Usage Guide (use cases and examples)

The first document, the **Business Rules**, describes the requirements of business representatives of users, financial institutions and software providers, from the point of view of processes. It discusses the following subjects:

- Definition and description of specific business transactions, describing the relevant parties and the messages that are used (types of payments, versions of reports)
- Summary of message structures with more detail about certain structural elements
- Description of the main validation rules and ways of handling errors.

The **Implementation Guidelines** serve as manuals for the technical implementation of the standard and provide assistance in producing the various message types. They describe the XML structures and validation rules in detail.

The **Swiss Usage Guide** provides field rules and examples to explain the most frequent use cases (payment types) and explains how ISO 20022 messages (customer-bank or bank-customer) should be structured according to the Swiss recommendations, so providing an end-to-end overview of the whole process.

## 1.1 Amendment control

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The Swiss Business Rules and Implementation Guidelines documents are subject to the amendment authority of

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and reflect the regulations of Swiss financial institutions. Any future amendments and additions will be made by SIX Interbank Clearing.

The latest version of this document can be downloaded from the SIX Interbank Clearing website at the following address: [www.iso-payments.ch](http://www.iso-payments.ch)

## 1.2 Reference documents

Ref	Document	Title	Source
[1]	Payments Maintenance 2009	Message Definition Report, Approved by the Payments SEG on 30 March 2009, Edititon September 2009	ISO
[2]	pain.008.001.02	XML Schema Customer Direct Debit Initiation V02	ISO
[3]	pain.002.001.03	XML Schema Customer Payment Status Report V03	ISO
[4]	Swiss Business Rules	ISO 20022 Payments – Swiss Business Rules for Payments and Cash Management for Customer-Bank Messages	SIX Interbank Clearing
[5]	Payments External Code Lists	Inventory of External Payment Code Lists	ISO

Table 1: Reference documents

Organisation	Link
ISO	<a href="http://www.iso20022.org">www.iso20022.org</a>
EPC	<a href="http://www.europeanpaymentscouncil.eu">www.europeanpaymentscouncil.eu</a>
SIX Interbank Clearing	<a href="http://www.iso-payments.ch">www.iso-payments.ch</a> <a href="http://www.six-interbank-clearing.com">www.six-interbank-clearing.com</a>

Table 2: Links to the relevant Internet pages

## 1.3 Summary of message standards

### 1.3.1 ISO 20022

The ISO 20022 message standard gives details for the following Payment Initiation Messages:

- Customer Credit Transfer Initiation (pain.001) and
- Customer Direct Debit Initiation (pain.008)

Other related messages include, for example:

- Customer Payment Status Report (pain.002)

All these messages are described in the document "ISO 20022 Message Definition Report Payments Standards – Maintenance 2009" [1]. The "pain.007" message is not currently used in Switzerland and is therefore not further discussed here.

The "pain.001" and "pain.008" messages for use in the SEPA direct debit procedure, and the "pain.002" message, are dealt with in separate documents in Switzerland.

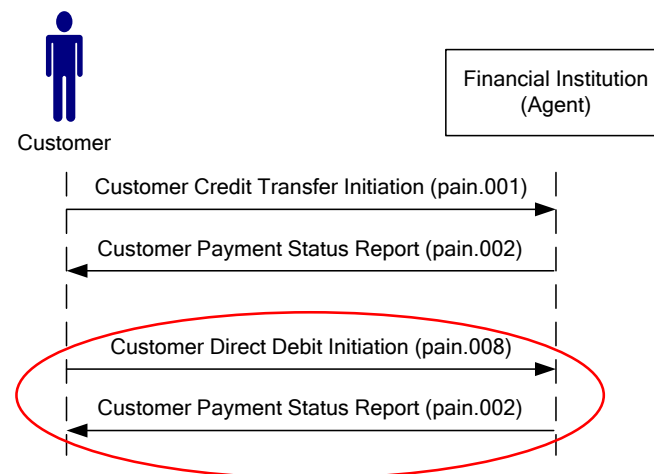


Figure 1: Payment Initiation message flow – summary

The flow of messages is shown in the above Figure 1. The "pain.002" message is sent back to the sender by the recipient of "pain.001" and "pain.008" messages in order to report back the results of validation.

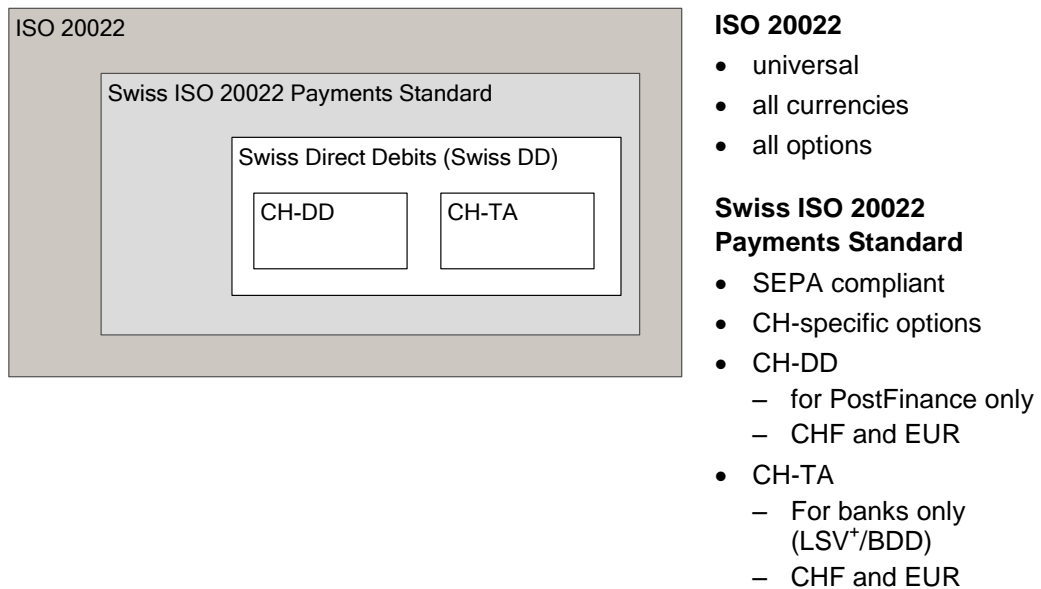
The messages specified in the ISO 20022 standard can be used universally, apply to all currencies and encompass all possible options. The messages are adapted for special areas of use and country-specific circumstances, i.e. not all the options under the standard are used.

### 1.3.2 Swiss ISO 20022 Payments Standard

The message standard recommended by Swiss financial institutions is based on the ISO 20022 standard. Furthermore, SEPA Credit Transfer and SEPA Direct Debit are based on the SEPA recommendations approved by the EPC.

The Swiss Implementation Guidelines for the Swiss Direct Debit procedure (Swiss DD) – this document – contains technical specifications and instructions for the technical and specialised implementation of customer-bank messages for use in the context of the Swiss Direct Debit procedure in accordance with the Swiss ISO 20022 payment standard.

Figure 2 below shows the degree of concordance between the Swiss ISO 20022 Payments Standard, especially for the Swiss Direct Debit, and ISO 20022.



*Figure 2: Degree of concordance between the Swiss ISO 20022 Payments Standard and ISO 20022*

**Note:** The colours clay brown and light grey that are used for the ISO 20022 standard and the Swiss ISO 20022 Payments Standard are also used in the column headings of tables in this document.



### 1.3.3 Swiss DD message standard

For collections from PostFinance, the collection type "CH-DD" (based on the PostFinance "CH-DD direct debit (Swiss Direct Debit)" procedure) under the Swiss ISO 20022 payment standard applies.

For collections from banks, the collection type "CH-TA" (based on the banks' "LSV<sup>+</sup>/BDD" procedure) under the Swiss ISO 20022 payment standard applies.

The versions of the "pain.008" message described in this document enable

- for "CH-DD": the collection of direct debits under the ISO 20022 standard using the "CH-DD direct debit (Swiss Direct Debit)" procedure.
- for "CH-TA": the collection of direct debits under the ISO 20022 standard using the current "LSV<sup>+</sup>/BDD" procedure.

**Note:** When the new, joint direct debit procedure is introduced (at the beginning of 2019), the two versions of the "pain.008" ("CH-DD" for PostFinance and "CH-TA" for banks) will be joined by a single, common version. In the ultimate solution, only the common version will be offered. Some financial institutions already offer collection of direct debits under the ISO 20022 standard using this common version.

**Swiss direct debits must be submitted in a single currency (each "pain.008" contains either only direct debits in CHF or only direct debits in EUR).**

## 1.4 Representation of XML messages

The logic structure of XML messages is a tree structure. This can be represented in various ways: in diagrams, tables or text. Representation in text is very suitable for actual examples of messages, while tables and diagrams are mainly suitable for giving an overview of XML schemas. The illustrations in this document are based on the schema in the Swiss recommendations.

XML editors which have the option of graphical representation use symbols which may look slightly different depending on the type of editor (the illustrations in this document were produced using the editor XMLSpy from Altova GmbH). The main symbols are briefly introduced in Appendix B. More detailed information can be found in the user manual or the online help for the XML editor that is being used.

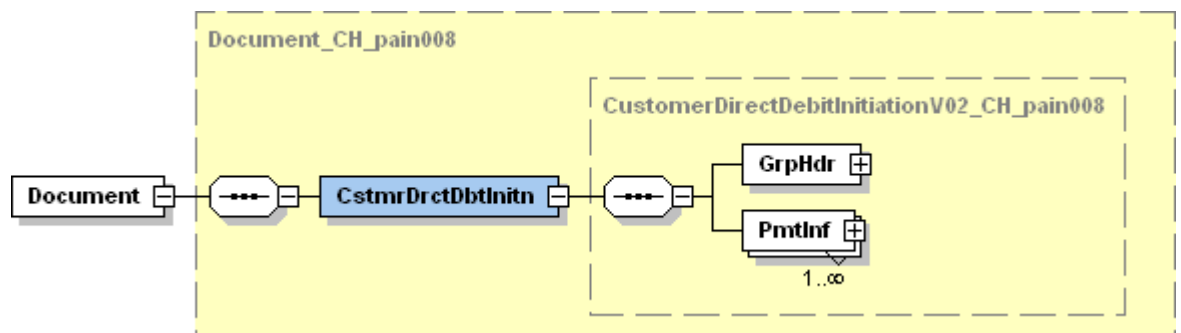


Figure 3: Example of graphical representation of an XML message

## 1.5 XML message conventions

A basic knowledge of XML is assumed for the purposes of this document, so only certain special points are explained.

### Permitted characters

The characters permitted in XML messages according to the Swiss ISO 20022 Payments Standard are listed in section 2.3.1 "Character set".

**Note:** The use of blank elements is not permitted.

### Statuses

The following statuses (information about usage) are permitted for individual XML elements according to the Swiss ISO 20022 Payments Standard:

Status	Designation	Description
<b>M</b>	Mandatory	The element is mandatory. If the element is not used, a Swiss bank will refuse to process the message.
<b>R</b>	Recommended	The use of the element is recommended. If the element is not used, the message will normally still be processed by a Swiss bank.
<b>O</b>	Optional	The element is optional.
<b>D</b>	Dependent	The use of the element depends on other elements. Depending on the content or presence of another element, this element may be mandatory or optional.
<b>BD</b>	Bilaterally Determined	The element may only be used by agreement with the instructed financial institution.

### XML schema validation

The technical validation of the various XML messages is carried out using XML schemas. These define the elements that can be used, their status (mandatory, optional, dependent), the format of their content and the content itself (in certain cases the permitted codes are listed in the XML schema).

The names of data types given in the tables of this document correspond to the data types defined in XML schemas.

For the Swiss ISO 20022 Payments Standard, its own XML schemas are published as variants of the ISO 20022 XML schemas, in which, for example, unnecessary elements have been omitted or statuses changed. These XML schemas define all the data that is valid for Switzerland. Data types which have been taken over unchanged from the ISO standard retain the same names. For those data types that have been changed, the names have been given appropriate extensions showing the differences between them and the original ISO data types.

Example 1: ISO data type: GroupHeader39  
Swiss data type: GroupHeader39\_CH\_pain008

Example 2: ISO data type: PartyIdentification32\_  
Swiss data type: PartyIdentification32\_CH\_pain008\_2

No comments are inserted in the XML schemas. Information about the various data elements can be found in these Implementation Guidelines.

The names of the Swiss ISO 20022 Payments Standard XML schemas and links to the original XSD files are listed in Appendix A.

### Indication of schema location and namespace in XML messages

The Schema Location in XML messages indicates the XML schema which should be used to carry out the technical validation and where that schema is to be found. The Schema Location also includes the namespace (xmlns="..."). If a different Schema Location is entered from the one admitted, the whole message is rejected.

### Using the Swiss XML schema

The definitions in the Swiss XML schema are the same as the descriptions in these Implementation Guidelines and should primarily be used to validate XML files that have been produced. Submissions can be made either using this Swiss XML schema or the official ISO 20022 XML schema. The XML schema which is to be used must be agreed with the relevant financial institutions.

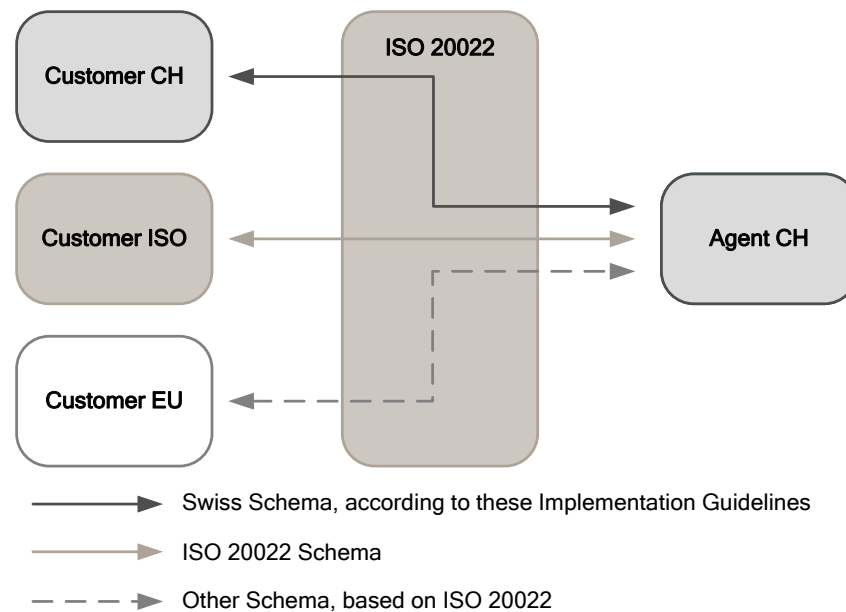


Figure 4: Using the Swiss XML schema

## 1.6 Conventions for presentation

In this document, the following conventions apply to presentation.

### Description of XML elements

In some publications, the names of XML elements are written as a single concept with no spaces, for example DirectDebitTransactionInformation. In the interests of legibility, spaces are generally used in this document.

### Data in tables

The tables contain information from ISO 20022 (Index, Multiplicity, Message Item, XML-Tag). The following information can also be found in the tables:

- Status of the element (as defined in section 1.5 "XML message conventions")
- General definition
- Direct debit type-specific definition (CH-DD, CH-TA)
- Error code that is sent back if there are any errors in the Customer Payment Status Report (pain.002)

**Note:** If during schema validation an error is detected in any element, the whole message is always rejected (error code FF01). Since this response generally applies to all elements in the table, a comment to that effect is not entered for every element.

### Colours used in the tables

The column headings are marked in **clay brown** for the information about ISO 20022 and **light grey** for information about the Swiss ISO 20022 Payments Standard.

Elements containing at least one sub-element are marked in **light blue** in the ISO 20022 columns.

### Representation of the tree structure in the tables

So that it is possible to tell where in the tree structure an element comes, the hierarchy level is indicated by preceding "+" signs in the Message Item. For example, the message identification (element identification) in the Group Header is represented as shown:

```

Group Header
+Initiating Party
++Identification
+++Organisation Identification
++++Other
+++++Identification
  
```

### Representation of choices

Elements with a choice are marked in the "XML Tag" column as follows:

{Or for start of the choice

Or} for end of the choice

Example:

Payment Information +Payment Type Information ++Category Purpose	CtgyPurp		0..1	BD
Payment Information +Payment Type Information ++Category Purpose +++Code	Cd	{Or	1..1	M
Payment Information +Payment Type Information ++Category Purpose +++Proprietary	Prtry	Or}	1..1	M

## 1.7

### Scope

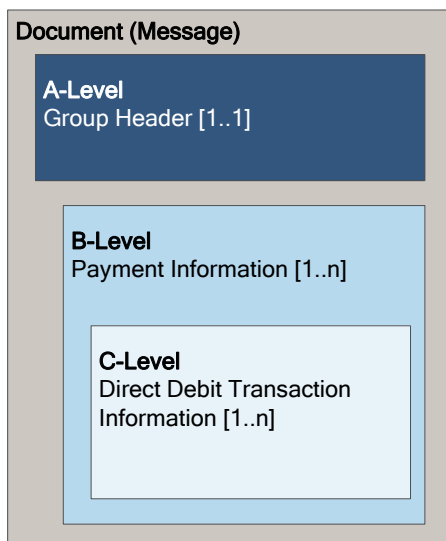
These Implementation Guidelines only give the specifications for the customer-bank messages Customer Direct Debit Initiation and Customer Payment Status Report for the Swiss ISO 20022 Payments Standard for Swiss Direct Debit.

No aspects relating to the communication channels used for the sending of messages between customer and financial institution, and their security features, are discussed in this document. These are entirely the responsibility of the financial institutions involved and their customers.

## 2 Customer Direct Debit Initiation (pain.008)

### 2.1 General

The Customer Direct Debit Initiation (pain.008) XML message is used for the electronic commissioning of collection orders for the Swiss Direct Debit procedure by customers to the financial institution. It is used on the basis of the ISO 20022 XML schema "pain.008.001.02".



The "pain.008" XML message is essentially structured as follows:

- **A-Level:** message level, Group Header. This block must occur exactly once.
- **B-Level:** creditor side, Payment Information. This block must occur at least once and generally comprises several C-levels.
- **C-Level:** debtor side, Direct Debit Transaction Information. This block must occur at least once for each B-level. It comprises all the C-levels (transactions) belonging to the B-level (credit).

Figure 5: Basic message structure for the "pain.008" XML message

In the following **technical specifications** for the XML message Customer Direct Debit Initiation (pain.008), each of these message levels is discussed in a separate subsection:

- 2.2.1 "Group Header (GrpHdr, A-Level)"
- 2.2.2 "Payment Information (PmtInf, B-Level)"
- 2.2.3 "Direct Debit Transaction Information (DrctDbtTxInf, C-Level)"

The **business specifications** given in section 2.3 cover the following topics:

- character set
- collection types
- duplicate checking

## 2.2 Technical specifications

### 2.2.1 Group Header (GrpHdr, A-Level)

The Group Header (A-Level of the message) contains all the elements that apply to all the transactions in the Customer Direct Debit Initiation (pain.008) XML message. It occurs exactly once in the message.

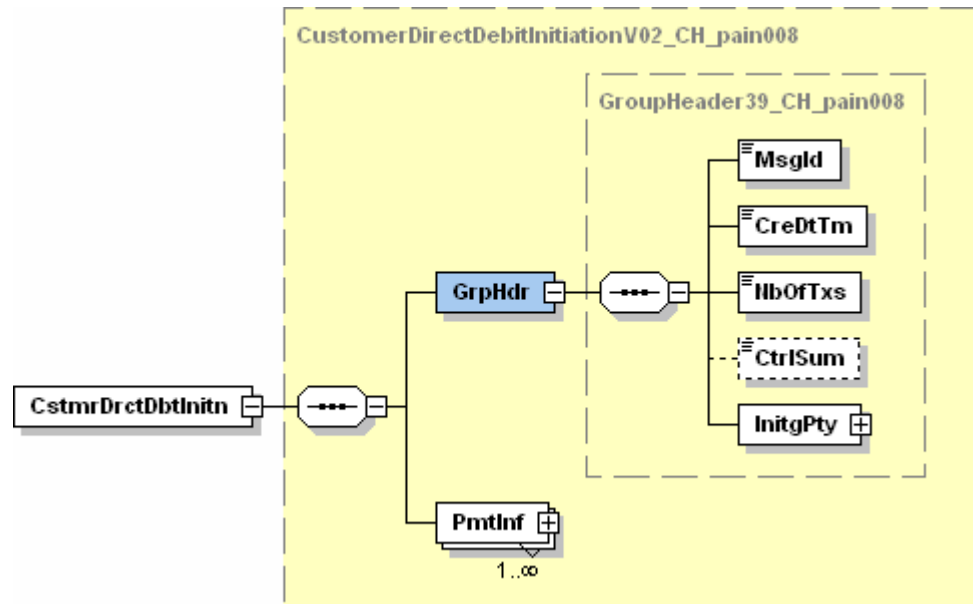


Figure 6: Group Header (GrpHdr)

The following table specifies all the elements of the Group Header for the Swiss Direct Debit procedure that are relevant to the Swiss ISO 20022 Payments Standard.

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
	Document +Customer Direct Debit Initiation V02	CstmrDrctDbtInitn	1..1					
1.0	Group Header	GrpHdr	1..1	M				
1.1	Group Header +Message Identification	MsgId	1..1	M	Checking for duplicates takes place at the Swiss financial institutions at document (message) level and takes account of the following elements: unique "Message Identification" in combination with the "Initiating Party". The uniqueness is checked by the financial institutions over a period of at least 90 days. For producers this means that they must give their messages for transmission identification that is unique at least within a period of 90 days. Messages with the same "Message Identification" will be rejected. It is recommended that the "Message Identification" is generally kept unique for as long as possible, partly so as to simplify any subsequent long-term enquiries. In some cases at particular financial institutions, checking for duplicates can also be implemented for other elements (B- or C-Level). Only the SWIFT character set is permitted for this element. If there is an error, the whole message is rejected.		DU01	
1.2	Group Header +Creation Date Time	CreDtTm	1..1	M	Recommendation: Should be the same as the actual date/time of creation.		DT01	
1.6	Group Header +Number Of Transactions	NbOfTxs	1..1	M	Number of transactions for all C-Levels (Direct Debit Transaction Information) in the whole message. Recommendation: At present, the customer is recommended not to send any messages (files) to the financial institution exceeding 99,999 collections (C-Level, transactions). If there is an error, the whole message is rejected.	CH-DD: Messages with more than 100,000 transactions will be rejected.	AM18	
1.7	Group Header +Control Sum	CtrlSum	0..1	R	Value is the same as the sum of all the "Instructed Amount" elements. If there is an error, the whole message is rejected.		AM10	
1.8	Group Header +Initiating Party	InitgPty	1..1	M	Is part of duplicate checking and must contain a unique sender ID agreed with the recipient (usually the RS-PID of the creditor). The identification must be entered in the following sub-element: "Organisation Identification/Other/Identification". The sub-element "Private Identification" is not supported in Switzerland and must not be used.		CH16	
1.8	Group Header +Initiating Party ++Name	Nm	0..1	O	Name of the message sender, maximum 70 characters.		CH16	
1.8	Group Header +Initiating Party ++Identification	Id	0..1	M				



ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
1.8	Group Header +Initiating Party ++Identification +++Organisation Identification	OrgId	1..1	M				
1.8	Group Header +Initiating Party ++Identification +++Organisation Identification ++++Other	Othr	0..n	M	Must be sent exactly once.			
1.8	Group Header +Initiating Party ++Identification +++Organisation Identification ++++Other +++++Identification	Id	1..1	M	Must contain a unique sender ID agreed with the recipient. If there is an error, the whole message is rejected.	CH-DD: RS-PID CH-TA: LSV+/BDD identification	RR12	
1.8	Group Header +Initiating Party ++Contact Details	CtctDtIs	0..1	O	Details of the software used and the particular version.			
1.8	Group Header +Initiating Party ++Contact Details +++Name	Nm	0..1	O	Recommendation: Should contain the name of the software used to create this message, maximum 70 characters.		CH16	
1.8	Group Header +Initiating Party ++Contact Details +++Other	Othr	0..1	O	Recommendation: Should contain the version of the software used to create this message.			

Table 3: Group Header (GrpHdr, A-Level)

**2.2.2 Payment Information (PmtInf, B-Level)**

The Payment Information (B-Level of the message) contains information about the creditor and other key elements such as the payment method or requested collection date which apply to all transactions (C-Levels) for this B-Level.

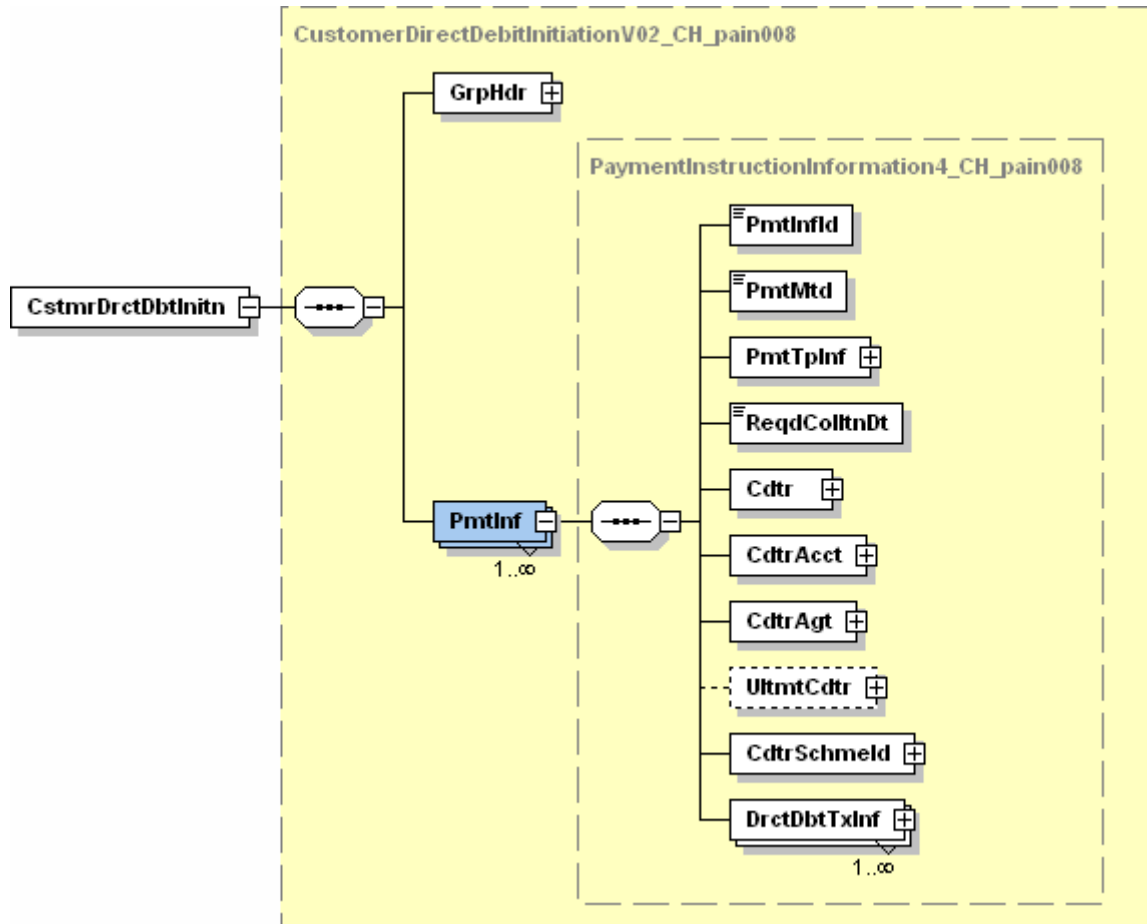


Figure 7: Payment Information (PmtInf)

The following table specifies all the elements of the Payment Information for the Swiss Direct Debit procedure that are relevant to the Swiss ISO 20022 Payments Standard.

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.0	Payment Information	PmtInf	1..n	M				
2.1	Payment Information +Payment Information Identification	PmtInfId	1..1	M	Value must be unique within the message. If there is an error, the whole message is rejected and the A-Level is referenced in the "pain.002". Only the SWIFT character set is permitted for this element.		DU02	
2.2	Payment Information +Payment Method	PmtMtd	1..1	M	Permitted value according to ISO 20022: DD		CH16	
2.6	Payment Information +Payment Type Information	PmtTpInf	0..1	M				
2.8	Payment Information +Payment Type Information ++Service Level	SvcLvl	0..1	M				
2.10	Payment Information +Payment Type Information ++Service Level +++Proprietary	Prtry	1..1	M		CH-DD: The code "CHDD" must be sent. CH-TA: The code "CHTA" must be sent.	CH16	
2.11	Payment Information +Payment Type Information ++Local Instrument	LclInstrm	0..1	M	Only the same kind of direct debits may be submitted within one message, i.e. different codes may not be sent in the same message. In the event of errors, the entire message will be rejected and the A-Level will be referenced in the "pain.002".		CH16	
2.13	Payment Information +Payment Type Information ++Local Instrument +++Proprietary	Prtry	1..1	D		CH-DD: Only code "DDCOR1" and "DDB2B" permitted. CH-TA: Only code "LSV+" and "BDD" permitted.	CH16	
2.15	Payment Information +Payment Type Information ++Category Purpose	CtgyPurp	0..1	BD	Purpose of payment Only to be used after consultation with the creditor's financial institution.	CH-TA: Must not be used. If sent, the entire B-Level will be rejected.	CH17	
2.16	Payment Information +Payment Type Information ++Category Purpose +++Code	Cd	1..1	M	Codes according to external ISO code list. If there is an error, the B-Level (incl. all associated C-Levels) is rejected.		CH16	
2.17	Payment Information +Payment Type Information ++Category Purpose +++Proprietary	Prtry	1..1	M	Proprietary purpose of payment			

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.18	Payment Information +Requested Collection Date	ReqdColltnDt	1..1	M	<p>If the delivery deadlines are not adhered to, either</p> <p>a) the "Requested Collection Date" (or "Interbank Settlement Date") can be set to the next possible Target day / interbank settlement day) or</p> <p>b) the order (B-Level, incl. all associated C-Levels) can be rejected.</p> <p>In both cases (amendment or rejection), the creditor is notified accordingly in a "pain.002".</p> <p>If a delivery or authorisation is received too late, then the preferred processing date for the direct debits is automatically amended to the next possible processing date.</p>	CH-DD: Submissions will be accepted no earlier than 2 years before and no later than 90 calendar days after the specified preferred processing date. CH-TA: Submissions will be accepted no earlier than 30 calendar days before and no later than 10 calendar days after the specified preferred processing date.	DT01 DT06 CH03 CH04	
2.19	Payment Information +Creditor	Cdtr	1..1	M	At some institutions, the details of the creditor are taken from the master data, and in that case the data in the "Creditor" element is ignored.	CH-DD: The details of the creditor are taken from the master data, and the address data from the <PstAdr> element in the message that is submitted.		
2.19	Payment Information +Creditor ++Name	Nm	0..1	M	Maximum 70 characters		CH16	
2.19	Payment Information +Creditor ++Postal Address	PstAdr	0..1	O	The address is either - structured using the sub-elements <StrtNm>, <PstCd>, <TwnNm>, <Ctry> or is - unstructured using the sub-elements <Ctry> and <AdrLine>.		CH16	
2.19	Payment Information +Creditor ++Postal Address +++Street Name	StrtNm	0..1	O				
2.19	Payment Information +Creditor ++Postal Address +++Post Code	PstCd	0..1	O				
2.19	Payment Information +Creditor ++Postal Address +++Town Name	TwnNm	0..1	O				
2.19	Payment Information +Creditor ++Postal Address +++Country	Ctry	0..1	O	Country where creditor is domiciled. Must contain a valid Country Code (ISO 3166). If there is an error, the B-Level (incl. all associated C-Levels) is rejected.		BE09	

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.19	Payment Information +Creditor ++Postal Address +++Address Line	AdrLine	0..7	O	No more than two lines may be used.		CH16	
2.20	Payment Information +Creditor Account	CdtrAcct	1..1	M				
2.20	Payment Information +Creditor Account ++Identification	Id	1..1	M	This element is to be used as follows: - IBAN or - proprietary account number in <Othr>/<Id>			
2.20	Payment Information +Creditor Account ++Identification +++IBAN	IBAN	{Or	1..1	D	Must include a valid Country Code in Pos. 1-2 (ISO 3166) and valid check digits in Pos. 3-4 (ISO 7064). If there is an error, the B-Level (incl. all associated C-Levels) is rejected.	CH-DD: Must be a valid account at PostFinance. CH-TA: Must be used. Only IBAN of Switzerland or the Principality of Liechtenstein may be used.	BE09 CH16 AC01
2.20	Payment Information +Creditor Account ++Identification +++Other	Othr	Or}	1..1	D	If there is an error, the B-Level (incl. all associated C-Levels) is rejected.	CH-TA: Must not be used.	CH17
2.20	Payment Information +Creditor Account ++Identification +++Other ++++Identification	Id		1..1	M	Must be used if "Other" is used. If there is an error, the B-Level (incl. all associated C-Levels) is rejected.	CH-DD: Must contain a valid Post Office account number (format fixed 9-digit numerical, last position is check digit Modulo 10 recursive).	CH16 CH17 AC01
2.21	Payment Information +Creditor Agent	CdtrAgt	1..1	M				
2.21	Payment Information +Creditor Agent ++Financial Institution Identification	FinInstnId	1..1	M				
2.21	Payment Information +Creditor Agent ++Financial Institution Identification +++Clearing System Member Identification	ClrSysMmbld	0..1	M				
2.21	Payment Information +Creditor Agent ++Financial Institution Identification +++Clearing System Member Identification ++++Member Identification	Mmbld	1..1	M	Institutional identification of the creditor agent If there is an error, the B-Level (incl. all associated C-Levels) is rejected.	CH-DD: Fix value: 09000	RC01	
2.21	Payment Information +Creditor Agent ++Financial Institution Identification +++Other	Othr	0..1	D		CH-DD: Must not be used.		

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.21	Payment Information +Creditor Agent ++Financial Institution Identification +++Other ++++Identification	Id	1..1	D	ISR participant number of the creditor agent	CH-TA: Must be used, if the ISR reference number is used.	AC01 CH21	
2.23	Payment Information +Ultimate Creditor	UltmtCdtr	0..1	O	Can be used at B-Level or C-Level but not at both at the same time. If used here at B-Level, this "Ultimate Creditor" applies to all C-Levels.	CH-TA: Is not currently passed on.	CH07 CH17	
2.23	Payment Information +Ultimate Creditor ++Name	Nm	0..1	O	Maximum 70 characters		CH16	
2.23	Payment Information +Ultimate Creditor ++Postal Address	PstlAdr	0..1	O	The address is either - structured using the sub-elements <StrtNm>, <PstCd>, <TwnNm>, <Ctry> or is - unstructured using the sub-elements <Ctry> and <AdrLine>.		CH16	
2.23	Payment Information +Ultimate Creditor ++Postal Address +++Street Name	StrtNm	0..1	O				
2.23	Payment Information +Ultimate Creditor ++Postal Address +++Post Code	PstCd	0..1	O				
2.23	Payment Information +Ultimate Creditor ++Postal Address +++Town Name	TwnNm	0..1	O				
2.23	Payment Information +Ultimate Creditor ++Postal Address +++Country	Ctry	0..1	O	Must contain a valid Country Code (ISO 3166). If there is an error, the B-Level (incl. all associated C-Levels) is rejected.		BE09	
2.23	Payment Information +Ultimate Creditor ++Postal Address +++Address Line	AdrLine	0..7	O	No more than two lines may be used.		CH16	
2.23	Payment Information +Ultimate Creditor ++Identification	Id	0..1	O				
2.23	Payment Information +Ultimate Creditor ++Identification +++Organisation Identification	Orgld {Or	1..1	D	Identification for legal entities. Only "BIC Or BEI" permitted, or "Other" must be used. If used, the "Private Identification" must not be present.		CH21 CH17	

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.23	Payment Information +Ultimate Creditor ++Identification +++Private Identification	Prvtld  Or}	1..1	D	Identification for private individuals. Only "Date And Place Of Birth" permitted, or "Other" must be used. If used, the "Organisation Identification" must not be present.		CH21 CH17	
2.27	Payment Information +Creditor Scheme Identification	CdtrSchmeld	0..1	M				
2.27	Payment Information +Creditor Scheme Identification ++Identification	ld	0..1	M	The sub-element "Private Identification" must be used.			
2.27	Payment Information +Creditor Scheme Identification ++Identification +++Private Identification	Prvtld	1..1	M				
2.27	Payment Information +Creditor Scheme Identification ++Identification +++Private Identification ++++Other	Othr	0..n	M	Only one occurrence of "Other" is permitted, no other sub-elements allowed.			
2.27	Payment Information +Creditor Scheme Identification ++Identification +++Private Identification ++++Other +++++Identification	ld	1..1	M	If there is an error, the B-Level (incl. all associated C-Levels) is rejected. Only the SWIFT character set is permitted for this element.	CH-DD: RS-PID, last two digits: check digits Modulo 97-10 (ISO 7064) CH-TA: LSV+ identification of the creditor	CH11	
2.27	Payment Information +Creditor Scheme Identification ++Identification +++Private Identification ++++Other +++++Scheme Name	SchmeNm	0..1	M	The sub-element "Proprietary" must be used.		CH21	
2.27	Payment Information +Creditor Scheme Identification ++Identification +++Private Identification ++++Other +++++Scheme Name +++++Proprietary	Prtry	1..1	M		CH-DD: The code "CHDD" must be sent. CH-TA: The code "CHLS" must be sent.	CH16	

Table 4: Payment Information (PmtInf, B-Level)

**2.2.3 Direct Debit Transaction Information (DrctDbtTxInf, C-Level)**

The Direct Debit Transaction Information (C-Level of the message) contains all the details about the debtor and other information about the transaction (sending information, purpose of payment etc.).

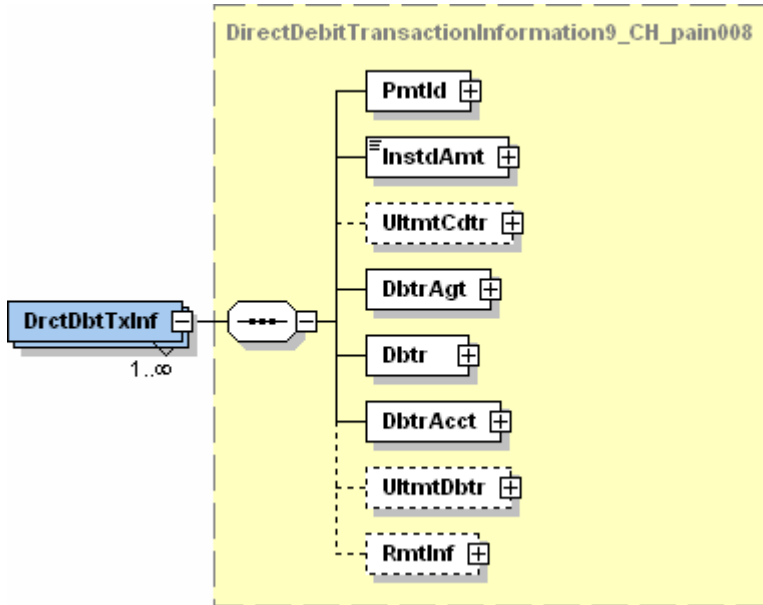


Figure 8: Direct Debit Transaction Information (DrctDbtTxInf)

The following table specifies all the elements of the Direct Debit Transaction Information for the Swiss Direct Debit procedure that are relevant to the Swiss ISO 20022 Payments Standard.



ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.28	Direct Debit Transaction Information	DrctDbtTxInf	1..n	M				
2.29	Direct Debit Transaction Information +Payment Identification	PmtId	1..1	M				
2.30	Direct Debit Transaction Information +Payment Identification ++Instruction Identification	InstId	0..1	M	Point-to-point reference which allows unique identification of the transaction in the event of an error. Value must be unique within the B-Level. If there is an error, the whole B-Level is rejected and referenced in the "pain.002". Only the SWIFT character set is permitted for this element.		DU05	
2.31	Direct Debit Transaction Information +Payment Identification ++End To End Identification	EndToEndId	1..1	M	Only the SWIFT character set is permitted for this element. If not present, the value "NOTPROVIDED" must be sent.	CH-DD: For an automated accounts receivable, the use of a unique end-to-end ID is strongly recommended. CH-TA: Is not currently passed on.	CH16	
2.44	Direct Debit Transaction Information +Instructed Amount	InstdAmt	1..1	M	Amount must be 0.01 or more and 999,999,999.99 or less.		AM01 AM02 CH20	
		@ Ccy		M	Only "CHF" and "EUR" permitted.		AM03	
2.69	Direct Debit Transaction Information +Ultimate Creditor	UltmtCdtr	0..1	D	Can be used at B-Level or C-Level but not at both at the same time. If there is an error, the C-Level is rejected.	CH-TA: Is not currently passed on.	CH07	
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Name	Nm	0..1	O	Maximum 70 characters		CH16	
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Postal Address	PstAdr	0..1	O	The address is either - structured using the sub-elements <StrtNm>, <PstCd>, <TwnNm>, <Ctry> or is - unstructured using the sub-elements <Ctry> and <AdrLine>.		CH16	
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Postal Address +++Street Name	StrtNm	0..1	O				
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Postal Address +++Post Code	PstCd	0..1	O				
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Postal Address +++Town Name	TwnNm	0..1	O				
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Postal Address +++Country	Ctry	0..1	O	Must contain a valid Country Code (ISO 3166). If there is an error, the C-Level is rejected.		BE09	

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.69	Direct Debit Transaction Information +Ultimate Creditor ++Postal Address +++Address Line	AdrLine	0..7	O	No more than two lines may be used.		CH16	
2.70	Direct Debit Transaction Information +Debtor Agent	DbtrAgt	1..1	M				
2.70	Direct Debit Transaction Information +Debtor Agent ++Financial Institution Identification	FinInstnId	1..1	M		CH-DD: The sub-element <ClrSysMmbld> must be sent. CH-TA: The sub-element <ClrSysMmbld> must be sent.		
2.70	Direct Debit Transaction Information +Debtor Agent ++Financial Institution Identification +++Clearing System Member Identification	ClrSysMmbld	0..1	D		CH-DD: Must be used. CH-TA: Must be used.	CH21	
2.70	Direct Debit Transaction Information +Debtor Agent ++Financial Institution Identification +++Clearing System Member Identification ++++Member Identification	Mmbld	1..1	M	Institutional identification of the debtor agent If there is an error, the C-Level is rejected.	CH-DD: Fix value: 09000	RC01	
2.72	Direct Debit Transaction Information +Debtor	Dbtr	1..1	M				
2.72	Direct Debit Transaction Information +Debtor ++Name	Nm	0..1	M	Maximum 70 characters		CH16, CH21	
2.72	Direct Debit Transaction Information +Debtor ++Postal Address	PstAdr	0..1	O	The address is either - structured using the sub-elements <StrtNm>, <PstCd>, <TwnNm>, <Ctry> or is - unstructured using the sub-elements <Ctry> and <AdrLine>.		CH16	
2.72	Direct Debit Transaction Information +Debtor ++Postal Address +++Street Name	StrtNm	0..1	O			CH17	
2.72	Direct Debit Transaction Information +Debtor ++Postal Address +++Post Code	PstCd	0..1	O			CH17	
2.72	Direct Debit Transaction Information +Debtor ++Postal Address +++Town Name	TwnNm	0..1	O			CH17	

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.72	Direct Debit Transaction Information +Debtor ++Postal Address +++Country	Ctry	0..1	O	Country where debtor is domiciled. Must contain a valid Country Code (ISO 3166). If there is an error, the C-Level is rejected.		BE09	
2.72	Direct Debit Transaction Information +Debtor ++Postal Address +++Address Line	AdrLine	0..7	O	No more than two lines may be used.		CH16	
2.73	Direct Debit Transaction Information +Debtor Account	DbtrAcct	1..1	M				
2.73	Direct Debit Transaction Information +Debtor Account ++Identification	Id	1..1	M	This element is to be used as follows: - IBAN or - proprietary account number in <Othr>/<Id>			
2.73	Direct Debit Transaction Information +Debtor Account ++Identification +++IBAN	IBAN	{Or	1..1	D If this is used, "Other" cannot be present. Must include a valid Country Code in Pos. 1-2 (ISO 3166) and valid check digits in Pos. 3-4 (ISO 7064). If there is an error, the C-Level is rejected.	CH-DD: Must be a valid account at PostFinance. CH-TA: Only IBAN of Switzerland or the Principality of Liechtenstein may be used.	BE09 CH16 MD01 AC01	
2.73	Direct Debit Transaction Information +Debtor Account ++Identification +++Other	Othr	Or}	1..1	D If this is used, "IBAN" cannot be present. If there is an error, the C-Level is rejected.		CH17	
2.73	Direct Debit Transaction Information +Debtor Account ++Identification +++Other ++++Identification	Id	1..1	D	Proprietary account identification If there is an error, the C-Level is rejected.	CH-DD: Must contain a valid Post Office account number (format fixed 9-digit numerical, last position is check digit Modulo 10 recursive).	CH16 CH17 MD01 AC01	
2.74	Direct Debit Transaction Information +Ultimate Debtor	UltmtDbtr	0..1	O	If there is an error, the C-Level is rejected.	CH-TA: Is not currently passed on.	CH07	
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Name	Nm	0..1	O	Maximum 70 characters		CH16	
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Postal Address	PstlAdr	0..1	O	The address is either - structured using the sub-elements <StrtNm>, <PstCd>, <TwnNm>, <Ctry> or is - unstructured using the sub-elements <Ctry> and <AdrLine>.		CH16	
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Postal Address +++Street Name	StrtNm	0..1	O				

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Postal Address +++Post Code	PstCd	0..1	O				
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Postal Address +++Town Name	TwnNm	0..1	O				
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Postal Address +++Country	Ctry	0..1	O	Must contain a valid Country Code (ISO 3166). If there is an error, the C-Level is rejected.		BE09	
2.74	Direct Debit Transaction Information +Ultimate Debtor ++Postal Address +++Address Line	AdrLine	0..7	O	No more than two lines may be used.		CH16	
2.88	Direct Debit Transaction Information +Remittance Information	RmtInf	0..1	O		CH-DD: May only be used unstructured. CH-TA: Must be structured and can optionally be used unstructured in addition.	CH16	
2.89	Direct Debit Transaction Information +Remittance Information ++Unstructured	Ustrd	0..n	D	Notification to the debtor. Maximum 1 instance may be provided.		CH17	
2.90	Direct Debit Transaction Information +Remittance Information ++Structured	Strd	0..n	D	If there is an error, the C-Level is rejected. Maximum 1 instance may be provided.	CH-DD: Must not be used. CH-TA: Must be used.	CH15 CH17 CH21	
2.110	Direct Debit Transaction Information +Remittance Information ++Structured +++Creditor Reference Information	CdtrRefInf	0..1	M				
2.111	Direct Debit Transaction Information +Remittance Information ++Structured +++Creditor Reference Information ++++Type	Tp	0..1	M				
2.112	Direct Debit Transaction Information +Remittance Information ++Structured +++Creditor Reference Information ++++Type +++++Code Or Proprietary	CdOrPrtry	1..1	M				

ISO 20022 Standard				Swiss ISO 20022 Payments Standard				
Index	Message Item	XML Tag	Mult.	St.	General Definition	Direct Debit Type-specific Definition	Error	
2.114	Direct Debit Transaction Information +Remittance Information ++Structured +++Creditor Reference Information ++++Type +++++Code Or Proprietary +++++Proprietary	Prtry	1..1	D	Indicates the type of reference number. Permitted values are: • ESR: ISR reference number • IPI: IPI reference number		CH16	
2.116	Direct Debit Transaction Information +Remittance Information ++Structured +++Creditor Reference Information ++++Reference	Ref	0..1	M	DD reference in the form of ISR reference number or IPI purpose of payment		CH16	

Table 5: Direct Debit Transaction Information (DrctDbtTxInf, C-Level)

## 2.3 Business specifications

### 2.3.1 Character set

In ISO 20022 XML messages, characters from the Unicode character set UTF-8 (8-Bit Unicode Transformation Format) must always be used (message has to be UTF-8 encoded). In XML messages under the Swiss ISO 20022 Payments Standard, only the "Latin Character Set" from this is permitted.

#### Characters without conversion (SWIFT character set)

The following characters, corresponding to the SWIFT character set, are accepted without conversion, as in the EPC Guidelines:

- a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z
- A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
- 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
- . (full stop)
- , (comma)
- : (colon)
- ' (apostrophe, also accepted as escaped character &apos;)
- + (plus)
- (minus)
- / (slash)
- ( (open round bracket)
- ) (closed round bracket)
- ? (question mark)
- space

#### Characters with conversion

In addition, certain other characters are also permitted in Switzerland (specified in Appendix C). These characters can be converted if necessary for subsequent further processing. If characters are sent that are not specified in Appendix C, the message is rejected.

#### Character set for references

For certain references, only characters from the SWIFT character set are permitted:

- Message Identification (A-Level)
- Payment Information Identification (B-Level)
- Creditor Scheme Identification (Creditor Identifier, B-Level)
- Instruction Identification (C-Level)
- End To End Identification (C-Level)

Furthermore, these references must not begin with "/" and must not contain "/".

### **Formatting conventions for fields showing amounts**

In the XML context, different formats are permitted in fields showing amounts. To ensure that the payment is processed without problem, the following formatting is recommended:

- Do not use leading or final filler characters (space, white space, zero, plus signs).
- Always use a decimal point.
- Even where the amount is a whole number, always send decimal places (the number of decimal places depends on the currency).

Regardless of the format that is used, financial institutions are allowed to convert all fields showing amounts into a standard format for further processing.

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### **2.3.2 Collection types in the Swiss Direct Debit procedure**

The direct debit procedures that are used in Switzerland today by the banks (LSV<sup>+</sup>/BDD) and by PostFinance (Debit Direct) support a procedure with right of objection (customer direct debit) and without right of objection (business-to-business direct debit). These are identified as follows in the "Payment Type Information/Local Instrument/Proprietary" element:

- LSV<sup>+</sup>/BDD procedure: Customer direct debit contains "LSV<sup>+</sup>", business-to-business direct debit contains "BDD"
- Debit Direct procedure: Customer direct debit contains "DDCOR1", business-to-business direct debit contains "DDB2B".

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### **2.3.3 Duplicate checking**

Duplicate checking at Swiss financial institutions takes place at the Document (Message) level, and takes account of the following elements: unique "Message Identification" combined with "Initiating Party". The financial institutions check for uniqueness over a period of 90 days. For producers, this means that they must ensure that their messages for transmission are identified uniquely within a period of at least 90 days. Messages with the same "Message Identification" will be rejected. It is recommended that the "Message Identification" is normally kept unique for as long as possible, to facilitate follow-up investigations in the long term. In some cases at certain financial institutions, duplicate checking may also be carried out for other elements (B- or C-Level).

### 3 Example of a collection as "pain.008" message

#### 3.1 Business situation in the example

For the details of the example in XML, the following assumptions were made:

The creditor "Muster AG, Seldwyla, CH" creates a "pain.008" message dated 23.03.2015 with two payment groups. Payment group 1 contains a single transaction for a collection on 30.03.2015. Payment group 2 contains two transactions for 25.03.2015.

For XML versions of the example, see Appendix A.

**Note:** Various sample files for CH-DD direct debits can be found via the following path: <https://isotest.postfinance.ch/corporates/> (under "Best Practice test cases").

#### 3.2 Data in the example

##### Payment group 1 with one collection on 30.03.2015

Data for payment group 1:

Field designation	Content
Identifier for the group	PMTINF-01
Schema name	CHLS
Service level	CHTA
Requested collection date	30.03.2015
Name/address of the creditor	MUSTER AG, SELDWYLA, CH
IBAN of the creditor	CH7081232000001998736
LSV <sup>†</sup> identification of the creditor	ABC1W
IID of the creditor agent	81232
ISR participant number of the creditor agent	010001456

Data for the transaction:

Field designation	Content
Transaction reference	INSTRID-01-01
Currency/Amount	CHF 3421.00
Name/address of the debtor	Herr Peter Haller Rosenweg 4 CH-8004 Zürich
IID of the debtor agent	230
IBAN of the debtor	CH2210230000123456789
Structured purpose (as ISR reference)	200002000000004443332000061



**Payment group 2 with one collection on 25.03.2015**

Data for payment group 2:

Field designation	Content
Identifier for the group	PMTINF-02
Schema name	CHLS
Service level	CHTA
Requested collection date	25.03.2015
Name/address of the creditor	MUSTER AG, SELDWYLA, CH
IBAN of the creditor	CH7081232000001998736
LSV <sup>+</sup> identification of the creditor	ABC1W
IID of the creditor agent	81232
ISR participant number of the creditor agent	010001456

Data for the first transaction in this payment group:

Field designation	Content
Transaction reference	INSTRID-02-01
Currency/Amount	CHF 885.50
Name/address of the debtor	Hans Tester Probeweg 88 9998 Irgendwo
IID of the debtor agent	4835
IBAN of the debtor	CH9804835011062385295
Unstructured purpose	Gemäss Rechnung 4712
Structured purpose (as ISR reference)	185744810000000000200800628

Data for the second transaction in this payment group:

Field designation	Content
Transaction reference	INSTRID-02-02
Currency/Amount	CHF 66.00
Name/address of the debtor	Peter Error Rudolfsweg 11 Sion
IID of the debtor agent	700
IBAN of the debtor	CH2007000031023502601
Structured purpose (as ISR reference)	215703000075200334559000126

## Appendix A: XML schema and example

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### XML-Schema

The original XML schema

- ***pain.008.001.02.ch.03.xsd***

is published on the [www.iso-payments.ch](http://www.iso-payments.ch) website.

It should preferably be opened using specific XML software.

### Example

On the [www.iso-payments.ch](http://www.iso-payments.ch) website, the example described in this document is published as XML file:

- ***pain\_008\_Swiss-DD\_Beispiel\_1.xml*** (Example from section 3)

## Appendix B: Symbols for graphical XML representation

### Expand and collapse symbols

Wherever parts of the tree structure can be expanded or collapsed, expand and collapse symbols are added to the symbols in the graphical representation. These consist of a small square containing either a plus sign or a minus sign.

- ⊕ Expand symbol: if you click on the plus sign the tree structure is expanded so subsequent symbols (attributes or child elements) are displayed. The expand symbol then changes to a collapse symbol.
- ⊖ Collapse symbol: if you click on the minus sign, the tree structure is collapsed again, i.e. the subsequent symbols disappear again. The collapse symbol then changes to an open symbol again.

### Elements

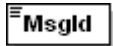
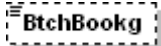
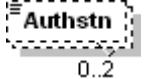
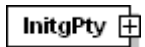

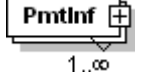

Elements are shown as rectangles containing the name of the element. For mandatory elements, the rectangle is shown with a continuous line, for optional elements the line is dotted.

For complex elements, which, unlike simple elements could contain attributes or other elements (so-called child elements), the rectangle has an expand or collapse symbol on the right.

Three little lines in the top left corner of the rectangle indicate that the element contains data (otherwise the element contains child elements).

Elements which are allowed to occur more than once are shown as 2 superimposed rectangles. Bottom right, you can see the minimum and maximum number of occurrences.

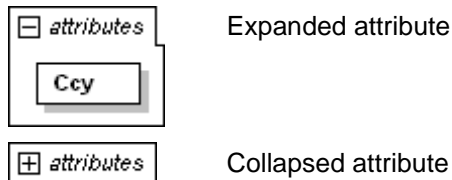
Examples:

	Mandatory simple element
	Optional simple element
	Optional simple element which can occur a maximum of twice
	Mandatory complex element (with child elements) with collapsed tree structure
	Mandatory complex element (with child elements) with expanded tree structure
	Mandatory complex element (with child elements) which can occur any number of times
	Mandatory complex element (with attributes)

**Attributes**

Attributes are also shown as rectangles, containing the name of the attribute. They are surrounded by a box containing the word "attributes" and an expand or collapse symbol. For mandatory attributes, the rectangle is drawn with a continuous line, for optional attributes the line is dotted.

Example:



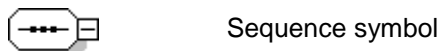
**Choice**

To the right of a choice symbol, the connecting lines branch off to the possible elements, of which only one can be present in the XML message.



**Sequence**

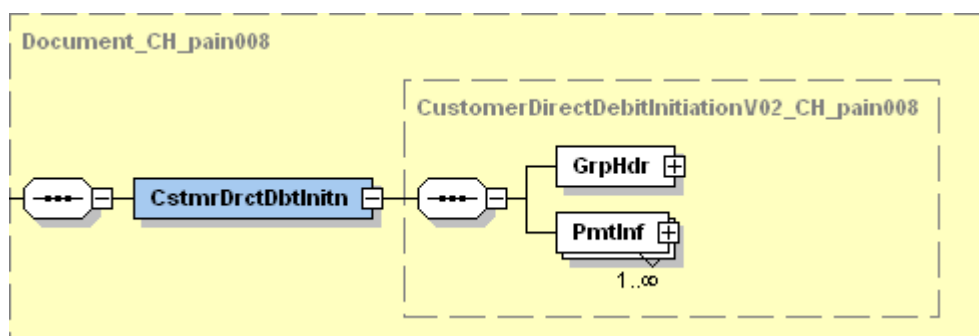
To the right of a sequence symbol, the connecting lines branch off to the elements which are to be used in the XML message in the order shown (optional elements and attributes can of course also be omitted).



**Frame**

For increased clarity, all the child elements, attributes and other information belonging to a complex element are surrounded by a dotted frame with a yellow shaded background.

Example:



## Appendix C: Character conversion table

The characters shown in the following Table 6 are also permitted in Switzerland, as explained in section 2.3.1 "Character set".

The "Conversion to" column shows a possible conversion to other characters.

Character	Designation	Conversion to
!	EXCLAMATION MARK	.
" oder &quot;	QUOTATION MARK	.
#	NUMBER SIGN	.
%	PERCENT SIGN	.
&amp; <sup>1</sup>	AMPERSAND	+
*	ASTERISK	.
;	SEMICOLON	.
&lt; <sup>1</sup>	LESS-THAN SIGN	.
> oder &gt;	GREATER-THAN SIGN	.
÷	DIVISION SIGN	.
=	EQUALS SIGN	.
@	COMMERCIAL AT	.
–	LOW LINE	.
\$	DOLLAR SIGN	.
£	POUND SIGN	.
[	LEFT SQUARE BRACKET	.
]	RIGHT SQUARE BRACKET	.
{	LEFT CURLY BRACKET	.
}	RIGHT CURLY BRACKET	.
\	REVERSE SOLIDUS	.
`	GRAVE ACCENT	.
´	ACUTE ACCENT	.
~	TILDE	.
à	LATIN SMALL LETTER A WITH GRAVE	a
á	LATIN SMALL LETTER A WITH ACUTE	a
â	LATIN SMALL LETTER A WITH CIRCUMFLEX	a
ä	LATIN SMALL LETTER A WITH DIAERESIS	ae or a
ç	LATIN SMALL LETTER C WITH CEDILLA	c
è	LATIN SMALL LETTER E WITH GRAVE	e
é	LATIN SMALL LETTER E WITH ACUTE	e
ê	LATIN SMALL LETTER E WITH CIRCUMFLEX	e

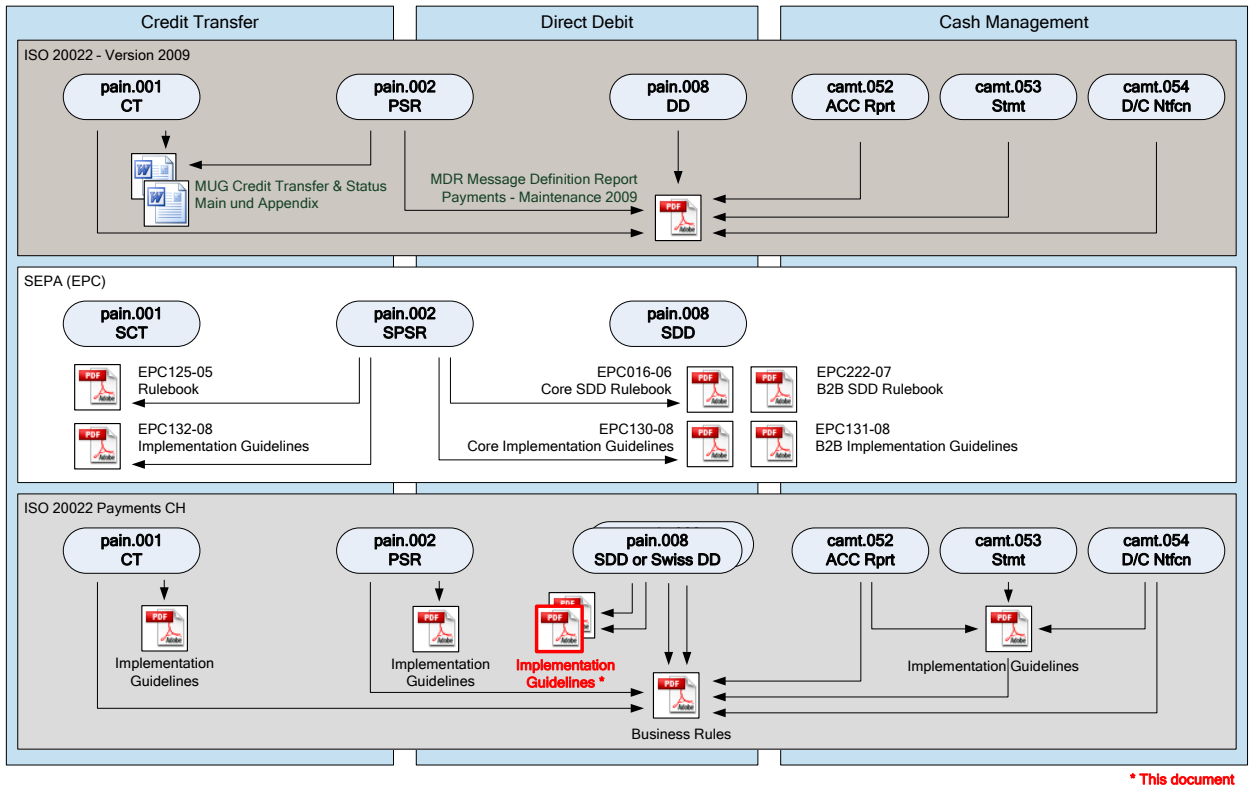
<sup>1</sup> Die Zeichen & (AMPERSAND) und < (LESS-THAN SIGN) dürfen als Text in XML-Elementen nur "escaped" dargestellt werden.

Character	Designation	Conversion to
ë	LATIN SMALL LETTER E WITH DIAERESIS	e
ì	LATIN SMALL LETTER I WITH GRAVE	i
í	LATIN SMALL LETTER I WITH ACUTE	i
î	LATIN SMALL LETTER I WITH CIRCUMFLEX	i
ï	LATIN SMALL LETTER I WITH DIAERESIS	i
ñ	LATIN SMALL LETTER N WITH TILDE	n
ò	LATIN SMALL LETTER O WITH GRAVE	o
ó	LATIN SMALL LETTER O WITH ACUTE	o
ô	LATIN SMALL LETTER O WITH CIRCUMFLEX	o
ö	LATIN SMALL LETTER O WITH DIAERESIS	oe or o
ù	LATIN SMALL LETTER U WITH GRAVE	u
ú	LATIN SMALL LETTER U WITH ACUTE	u
û	LATIN SMALL LETTER U WITH CIRCUMFLEX	u
ü	LATIN SMALL LETTER U WITH DIAERESIS	ue or u
ý	LATIN SMALL LETTER Y WITH ACUTE	Y
ß	LATIN SMALL LETTER SHARP S	ss or s
À	LATIN CAPITAL LETTER A WITH GRAVE	A
Á	LATIN CAPITAL LETTER A WITH ACUTE	A
Â	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	A
Ä	LATIN CAPITAL LETTER A WITH DIAERESIS	AE or A
Ç	LATIN CAPITAL LETTER C WITH CEDILLA	C
È	LATIN CAPITAL LETTER E WITH GRAVE	E
É	LATIN CAPITAL LETTER E WITH ACUTE	E
Ê	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	E
Ë	LATIN CAPITAL LETTER E WITH DIAERESIS	E
Ì	LATIN CAPITAL LETTER I WITH GRAVE	I
Í	LATIN CAPITAL LETTER I WITH ACUTE	I
Î	LATIN CAPITAL LETTER I WITH CIRCUMFLEX	I
Ï	LATIN CAPITAL LETTER I WITH DIAERESIS	I
Ò	LATIN CAPITAL LETTER O WITH GRAVE	O
Ó	LATIN CAPITAL LETTER O WITH ACUTE	O
Ô	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	O
Ö	LATIN CAPITAL LETTER O WITH DIAERESIS	OE or O
Ù	LATIN CAPITAL LETTER U WITH GRAVE	U
Ú	LATIN CAPITAL LETTER U WITH ACUTE	U
Û	LATIN CAPITAL LETTER U WITH CIRCUMFLEX	U
Ü	LATIN CAPITAL LETTER U WITH DIAERESIS	UE or U
Ñ	LATIN CAPITAL LETTER N WITH TILDE	N

Table 6: Character conversion

## Appendix D: Basis for the Swiss recommendations

The Swiss recommendations (Business Rules and these Implementation Guidelines for the Swiss direct debit procedure) are based on documents from ISO and EPC.



\* This document

Figure 9: Basis for the Swiss recommendations

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