Implementation Guidelines for ISO 20022 Interbank Messages

SIC and euroSIC

Clearing Day Information (camt.019)

Version 1.2 – 16.04.2015

General notes

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About this document

Target audience

The "Implementation Guidelines for ISO 20022 Interbank Messages" are addressed to all participants of the Swiss RTGS systems SIC and euroSIC, using the ISO 20022 message standard.

Purpose

The Implementation Guidelines consist of a base document with general information concerning all message types and various module documents – one each per ISO 20022 message type, e.g. this document for the message type "camt.019" – with message-specific information, including information on the application-specific handling of individual elements. They specify the messages to be submitted to and delivered from the RTGS systems SIC and euroSIC in the ISO 20022 message standard.

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, a brief amendment description and a statement of the sections concerned.

Associated documents

Supplementary information to the Implementation Guidelines can be found in the reference documents listed in the Base Document.

Amendment control

All the amendments carried out on this document are listed below, with the version, the date of the amendment, a brief amendment description and a statement of the sections concerned.

Version	Date	Amendment description	Section
1.0	01.01.2014	First edition	all
1.1	30.04.2014	Element added: • RptOrErr/BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/ClsrInf/Prd	3.6, 4.2, 5.3, 5.4
1.2	16.04.2015	Document name changed, Logo replaced, Wording adapted to the terminology of the RTGS plattform.	all

Table of contents

1 Overview of documentation structure

These Implementation Guidelines are modular in structure:

- The base document contains general information applying to all messages.
- The module documents – one for each ISO 20022 message type – contain message-specific information, including information on the application-specific handling of certain elements.
- For each Implementation Guideline, an XML schema (XSD) and generic XML sample messages will be published.

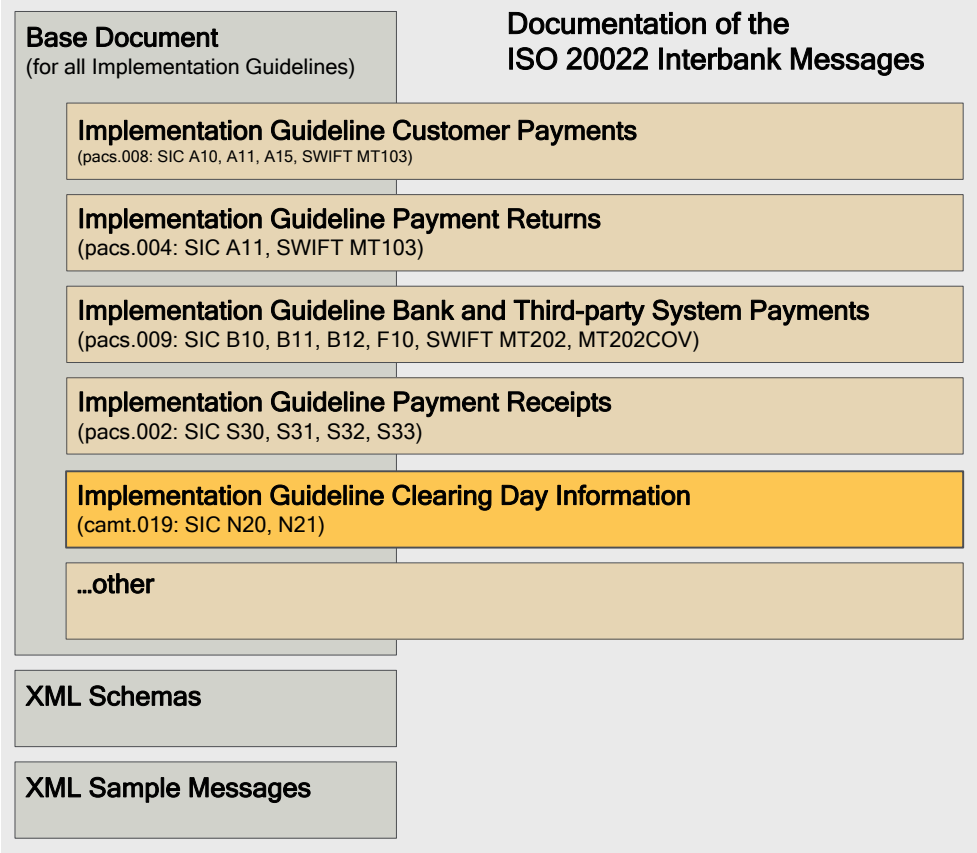
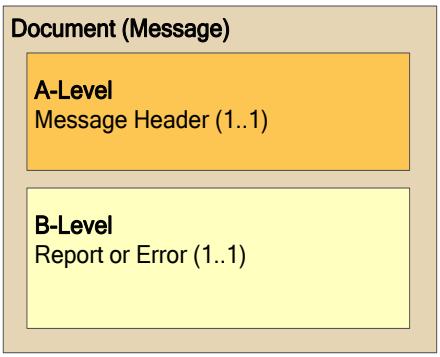


Figure 1: Documentation structure

2 SWIFT MX definitions

The "Return Business Day Information" message (camt.019) is sent from the RTGS systems to the participants, to inform participants about events on that clearing day (clearing closing times or the start of day-end processing), or about RTGS events (general settlement stop/general settlement restart or general system stop/general system restart). It is used on the basis of the SWIFT MX schema "camt.019.001.05" that has been modified for the RTGS systems and compatible with them.

The structure of the message is based on the ISO 20022 standard but is not (yet) a message published by ISO for inclusion in the standard.



The "camt.019.001.05.ch.01" message is essentially structured as follows:

- ***A-Level:*** Message level, element *"Message Header"*. This block must occur exactly once.
- ***B-Level:*** Transaction level, element *"Report or Error"*. This block must occur exactly once.

Figure 2: Basic message structure of the "camt.019.001.05.ch.01" message

3 Business specifications for the RTGS systems

3.1 Use cases

The "camt.019" message is used in the following situations in the RTGS systems:

Use case	Input/Output	ISO/MX message
Clearing stop times for the current day	O	camt.019
Start of day-end processing (DEP)	O	camt.019
Notification of general settlement stop/ general settlement restart	O	camt.019
Notification of general system stop/general system restart	O	camt.019

Table 1: Use cases for "camt.019" in the RTGS systems

The "Input/Output" column in the table indicates whether the message was created by the participant (I) or by the RTGS systems (O).

3.2 Event types

The use cases in the "camt.019" message are distinguished by entering the event type in the <*QryNm*> element in the *"Message Header"*:

Event type	Code value	Use case
Clearing stop times	CSPINF	Clearing stop times for the current day
Start of day-end processing	TEVINF	Start of day-end processing (DEP)
General settlement stop/ general settlement restart	HLTINF	Notification of general settlement stop/general settlement restart
General system stop/general system restart	SSTINF	Notification of general system stop/ general system restart

Table 2: Event types and their code values in the "camt.019" message

Note: In what follows in this document, the event types are always referenced by their code value.

3.3 References in the "Return Business Day Information" message (camt.019)

Along the processing chain, one reference is sent in the "camt.019" message:

A-Level: *MsgHdr/MsgId* – unique message identification for the "camt.019" message

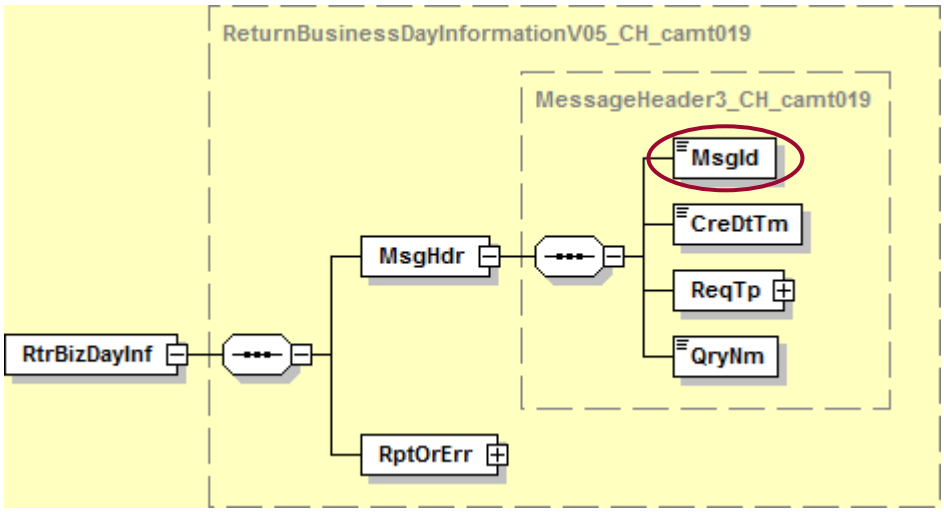


Figure 3: References in the "camt.019" message

3.4 Code values for clearing day events

In the "camt.019" message, the clearing day events (clearing day times) are identified by code values in the *Evt/Tp/Prtry/Id* element:

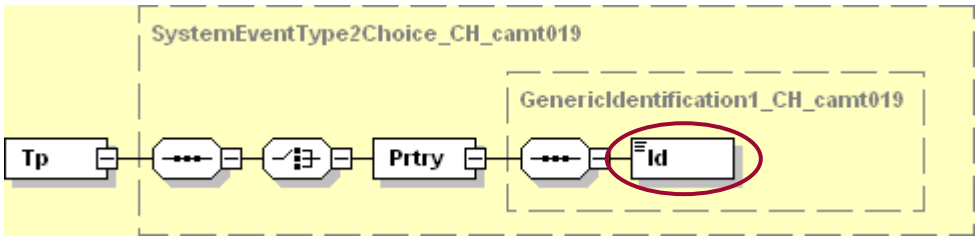


Figure 4: Entering the code to describe the clearing day events

The following code values are defined:

Code value	Event
CS1	Clearing stop 1
CS2	Clearing stop 2
CS3	Clearing stop 3

Table 3: Code values for clearing day events

3.5 Times for clearing day events

For each clearing day event, the planned time of the event is sent in the *Evt/SchdldTm* element.

In the use case "Start of day-end processing" (TEVINF), the *Evt/FctvTm* element contains – in addition to the planned time of clearing stop 1 – the time at which the message from the system manager about the start of day-end processing arrived in the RTGS systems.

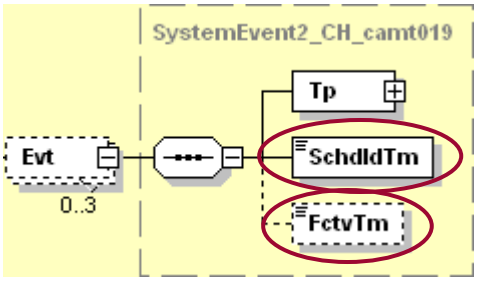


Figure 5: Times of clearing day events

3.6 Code values for RTGS events

In the "camt.019" message, the RTGS events that have been reported are specified in more detail using codes in the *ClsrInf/Rsn/Prtry* element:

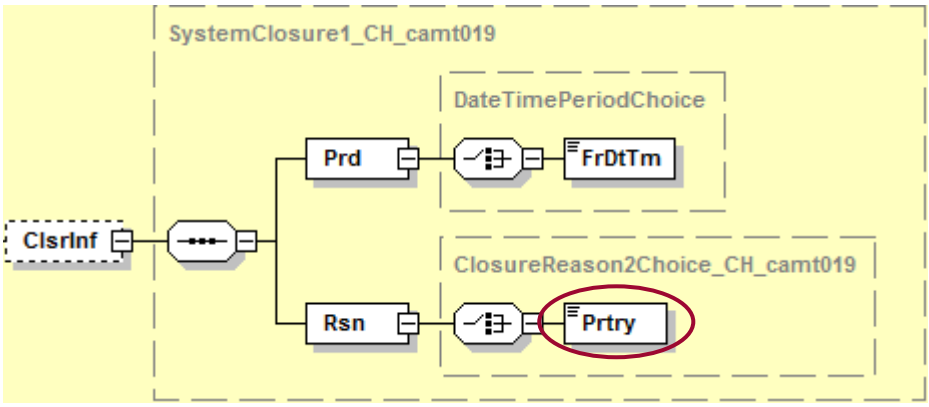


Figure 6: Entering codes to describe RTGS events

The following code values are defined:

Code value	Event
GSTS	General Settlement Stop
GSTR	General Settlement Restart
GSYS	General System Stop
GSYR	General System Restart

Table 4: Code values for RTGS events

3.7 Code values for backup delivery

For event type TEVINF, the delivery of messages on the backup medium is shown in the *BizDayInf/SysSts/Sts/Prtry/Id* element of the "camt.019" message:

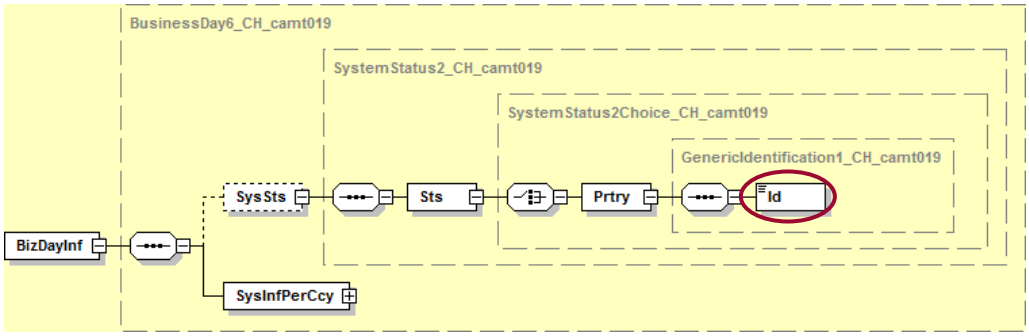


Figure 7: Entering the code for backup delivery

The following code values are defined:

Code value	Event
NOBDM	No messages will be sent on the backup medium
BDMSG	Unacknowledged or undelivered messages will be sent on the backup medium

Table 5: Code values for backup delivery

3.8 Acknowledging the message

The "camt.019" message is always acknowledged by the RTGS systems with the "camt.025" message.

3.9 Further business specifications

Further business specifications can be found in the Base Document.

4 Technical specifications for the RTGS systems

4.1 Message Header (MsgHdr, A-Level)

The *"Message Header"* (A-Level of the message) occurs exactly once in the message and contains the following elements:

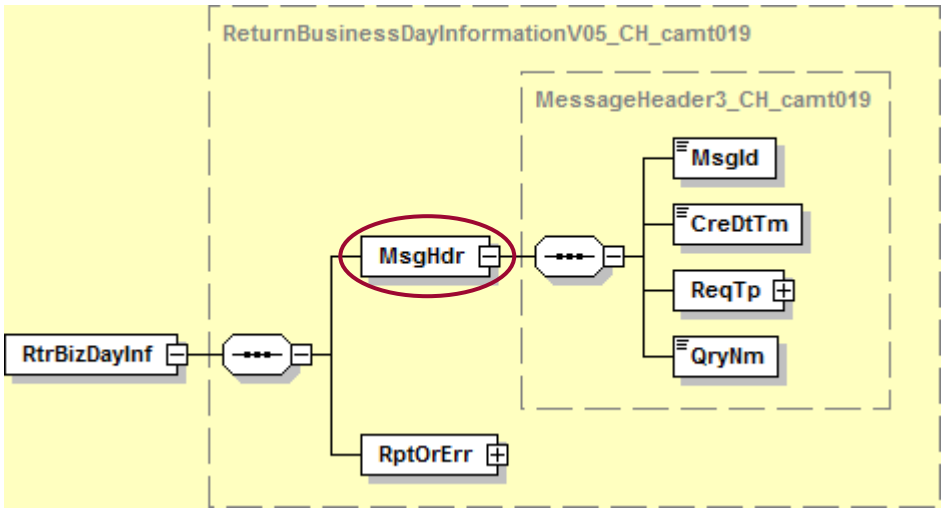


Figure 8: Message Header (MsgHdr)

The following table specifies all the elements of the *"Message Header"* of the "camt.019" message that are relevant in the context of the RTGS systems.

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	**XML Tag**	**Mult.**	**Mult.**	**Definition**	**Event Type**	**SIC**
Document +RtrBizDayInf	RtrBizDayInf	1..1	1..1			
MsgHdr	MsgHdr	1..1	1..1			
MsgHdr +MsgId	MsgId	1..1	1..1	**Message Identification**		**MT N20: F03** **MT N21: F03** **MT N22: F03** **MT N23: F03**
MsgHdr +CreDtTm	CreDtTm	0..1	1..1	**Creation Date Time**		
MsgHdr +ReqTp	ReqTp	0..1	1..1			
MsgHdr +ReqTp ++Prtry	Prtry	1..1	1..1			
MsgHdr +ReqTp ++Prtry +++Id	Id	1..1	1..1	**RTGS Code** Fix "CSC" for SIC, "CEC" for euroSIC.		
MsgHdr +QryNm	QryNm	0..1	1..1	**Event Type** Unique identification of the event type; the following code values are available: CSPINF = Clearing stop times TEVINF = Start of day-end processing HLTINF = General settlement stop/general settlement restart SSTINF = General system stop/general system restart		

Table 6: Message Header (MsgHdr, A-Level)

4.2 Report or Error (RptOrErr, B-Level)

The *"Report or Error"* element (B-Level of the message) contains the information about the clearing times or RTGS events.

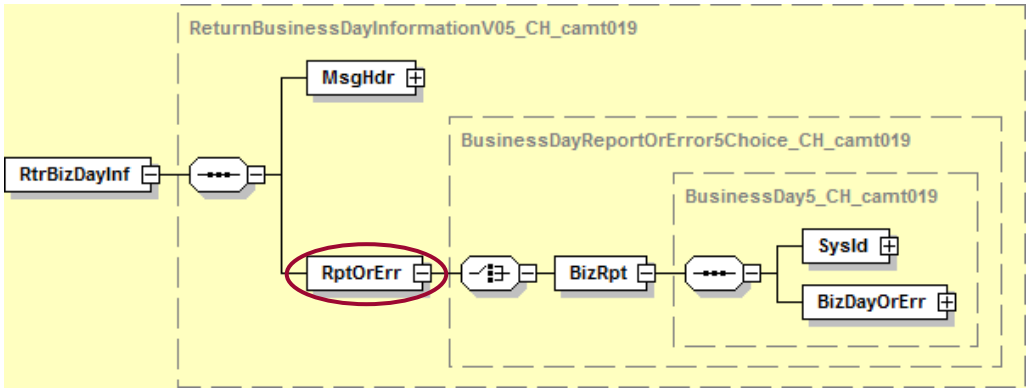


Figure 9: Report or Error (RptOrErr)

To show information about the clearing day events, the sub-element *BizRpt/ BizDayOrErr/BizDayInf/SysInfPerCcy/Evt* is used:

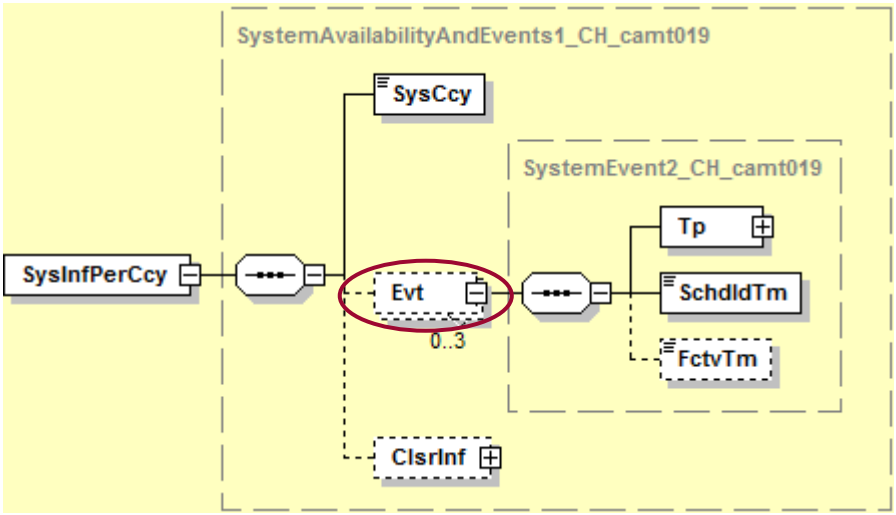


Figure 10: Showing clearing day events in the Event (Evt) element

To show information about RTGS events, the sub-element *BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/ClsrInf* is used:

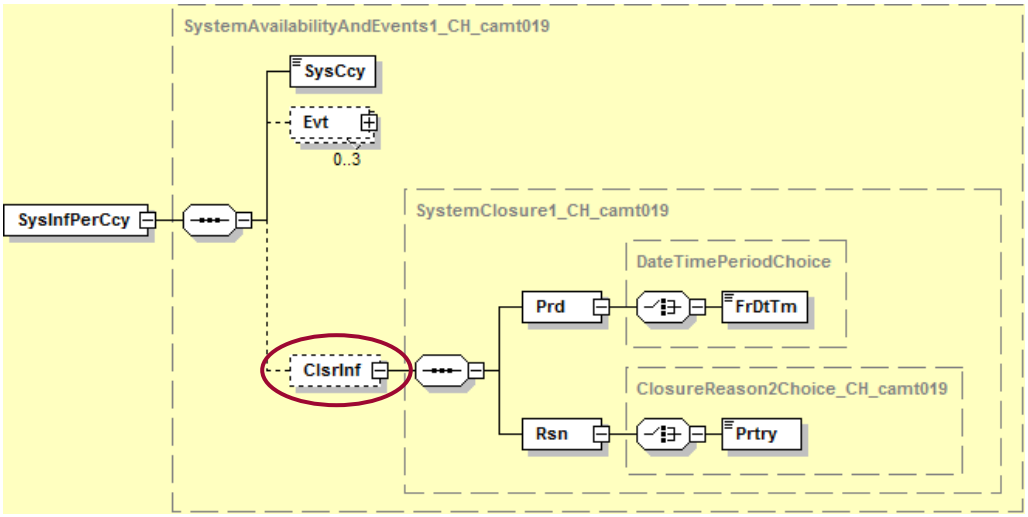


Figure 11: Showing RTGS events in the Closure Information (ClsrInf) element

The following table specifies all the elements of the *"Report or Error"* of the "camt.019" message that are relevant in the context of the RTGS systems.

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	**XML Tag**	**Mult.**	**Mult.**	**Definition**	**Event Type**	**SIC**
RptOrErr	RptOrErr	1..1	1..1			
RptOrErr +BizRpt	BizRpt	1..n	1..1			
RptOrErr +BizRpt ++SysId	SysId	1..n	1..1			
RptOrErr +BizRpt ++SysId +++Ctry	Ctry	1..1	1..1	**Country** Fix "CH".		
RptOrErr +BizRpt ++BizDayOrErr	BizDayOrErr	1..1	1..1	**Business Day Information**		
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf	BizDayInf	1..1	1..1			
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysSts	SysSts	0..1	0..1	**Message Delivery Status** Information about unacknowledged or undelivered messages at the time of the start of day-end processing.	CSPINF: Not used. HLTINF: Not used. SSTINF: Not used.	
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysSts +++++Sts	Sts	1..1	1..1			
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysSts +++++Sts ++++++Prtry	Prtry	1..1	1..1			

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	**XML Tag**	**Mult.**	**Mult.**	**Definition**	**Event Type**	**SIC**
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysSts +++++Sts ++++++Prtry +++++++Id	Id	1..1	1..1	**Backup Delivery Code** The provided code value indicates whether messages will be delivered on the backup medium. The following code values are defined: NOBDM = No messages will be delivered on the backup medium BDMSG = Unacknowledged or undelivered messages will be delivered on the backup medium		
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy	SysInfPerCcy	0..n	1..1			
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++SysCcy	SysCcy	0..1	1..1	**Currency** Fix "CHF" for SIC, "EUR" for euroSIC.		
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++Evt	Evt	0..n	0..3	**Business Day Event Information** One occurrence of the element will be provided for each clearing day event (clearing stop). Max. 3 occurrences are permitted.	TEVINF: Exactly 1 occurrence will be provided: Clearing stop 1 CSPINF: 1 - 3 occurrences will be provided. Start of clearing day - 3x: Clearing stop 1, 2 and 3 Postponement of clearing stop 1 - 3x: Clearing stop 1, 2 and 3 Postponement of clearing stop 2 - 2x: Clearing stop 2 and 3 Postponement of clearing stop 3 - 1x: Clearing stop 3 HLTINF: Not used. SSTINF: Not used.	
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++Evt ++++++Tp	Tp	1..1	1..1	**System Event** The <Prtry> element will be provided.		

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	**XML Tag**	**Mult.**	**Mult.**	**Definition**	**Event Type**	**SIC**
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++Evt ++++++Tp +++++++Prtry	Prtry	1..1	1..1			
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++Evt ++++++Tp +++++++Prtry ++++++++Id	Id	1..1	1..1	**System Event Code (proprietary)** The following codes are defined: CS1 = Clearing stop 1 CS2 = Clearing stop 2 CS3 = Clearing stop 3	TEVINF: Only CS1 will be provided.	
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++Evt ++++++SchdldTm	SchdldTm	1..1	1..1	**Scheduled Time** Scheduled time for the indicated clearing stop.		**MT N20: F29A, F29B, F29C** **MT N21: F29D**
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++Evt ++++++FctvTm	FctvTm	0..1	0..1	**Effective Time**	TEVINF: Documents the time at which the system manager's message to start end-of-day processing arrived in the RTGS system. CSPINF: Not used.	**MT N21: F91**
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++ClsrInf	ClsrInf	0..n	0..1	**RTGS Stop Information** Information about a general settlement stop/ settlement restart or system stop/system restart.	TEVINF: Not used. CSPINF: Not used.	

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	**XML Tag**	**Mult.**	**Mult.**	**Definition**	**Event Type**	**SIC**
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++ClsrInf ++++++Prd	Prd	0..1	1..1			
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++ClsrInf ++++++Prd +++++++FrDtTm	FrDtTm	1..1	1..1	**Input Timestamp** Documents the reception time of the system manager message regarding general settlement stop/settlement restart or system stop/system restart in the RTGS system.		**MT N22: F91** **MT N23: F91**
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++ClsrInf ++++++Rsn	Rsn	1..1	1..1			
RptOrErr +BizRpt ++BizDayOrErr +++BizDayInf ++++SysInfPerCcy +++++ClsrInf ++++++Rsn +++++++Prtry	Prtry	1..1	1..1	**RTGS Event Code** Code to identify the RTGS event.	HLTINF: GSTS = General Settlement Stop GSTR = General Settlement Restart SSTINF: GSYS = General System Stop GSYR = General System Restart	**MT N22: F53** **MT N23: F53**

Table 7: Report or Error (RptOrErr, B-Level)

5 Examples

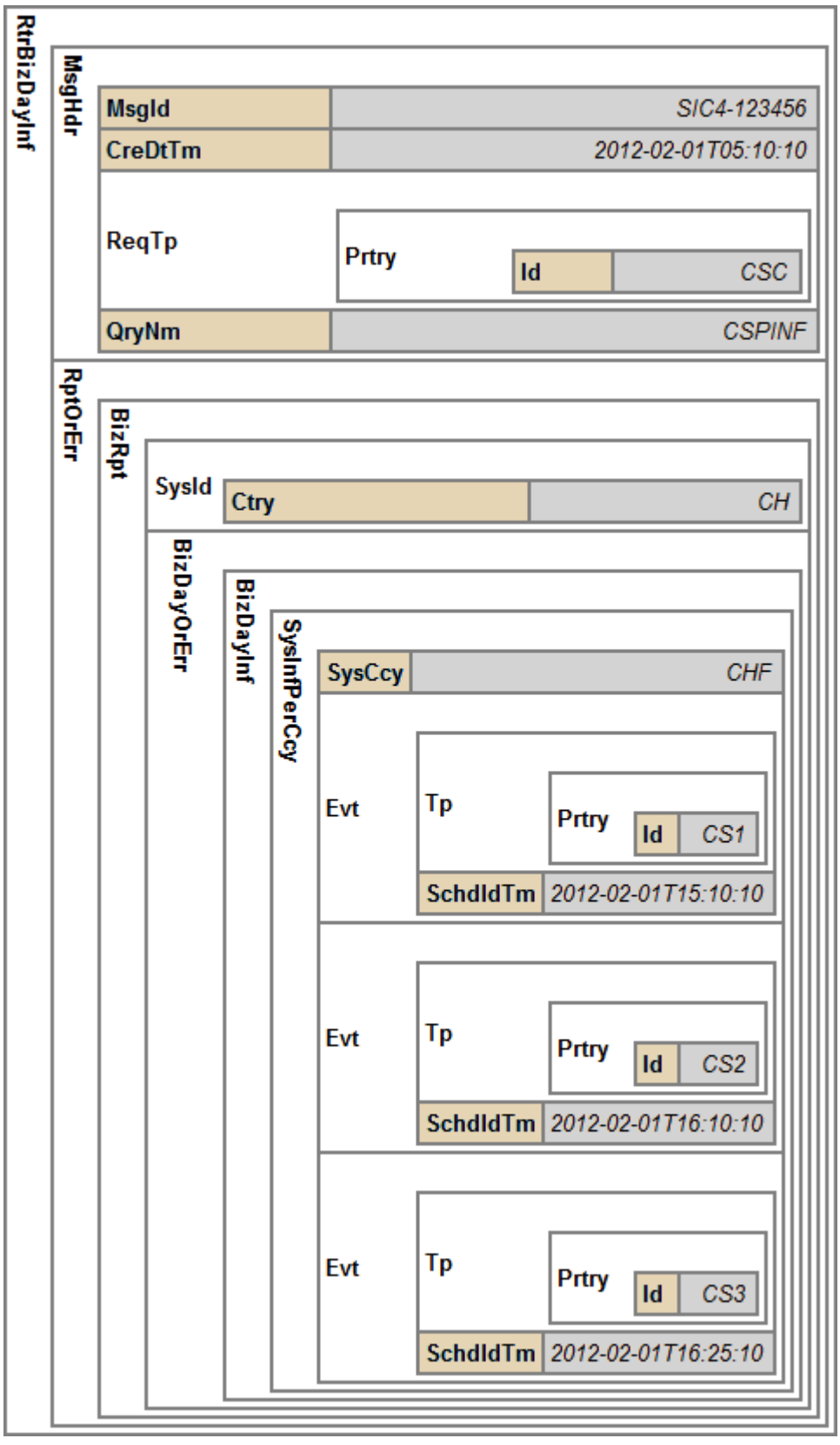
For XML versions of the examples see Appendix A.

5.1 IInformation about clearing stop times for the current day

The example shows the information for the participant about the planned clearing stop times at the start of the clearing day:

Business element	Content
Message identification	SIC4-123455
Creation date and time of the message	2012-02-01T16:10:15
RTGS code	CSC
Event type	CSPINF
System identification (country)	CH
System currency	CHF
Clearing day event code	CS1
Scheduled time	2012-02-02T15:00:00
Clearing day event code	CS2
Scheduled time	2012-02-02T16:00:00
Clearing day event code	CS3
Scheduled time	2012-02-02T16:15:00

"camt.019" message for the event type CSPINF

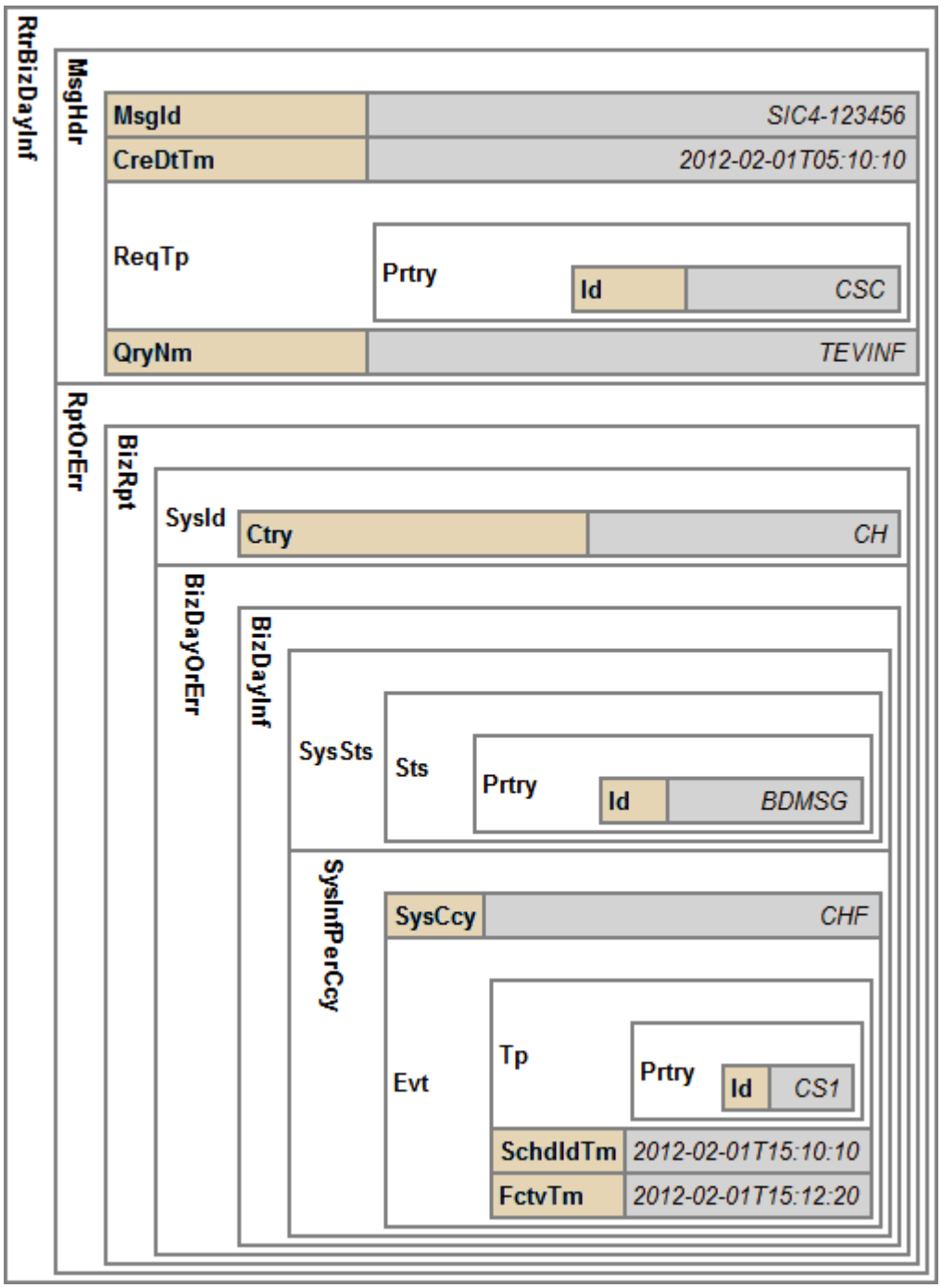


5.2 Information about the start of day-end processing

The example shows the information for the participant about the start of day-end processing (DEP):

Business element	Content
Message identification	SIC4-123456
Creation date and time of the message	2012-02-02T16:12:25
RTGS code	CSC
Event type	TEVINF
System identification (country)	CH
System currency	CHF
Backup delivery	Ja
Clearing day event code	CS1
Scheduled time	2012-02-02T15:00:00
Actual time of start of DEP	2012-02-02T16:15:20

"camt.019" message for the event type TEVINF

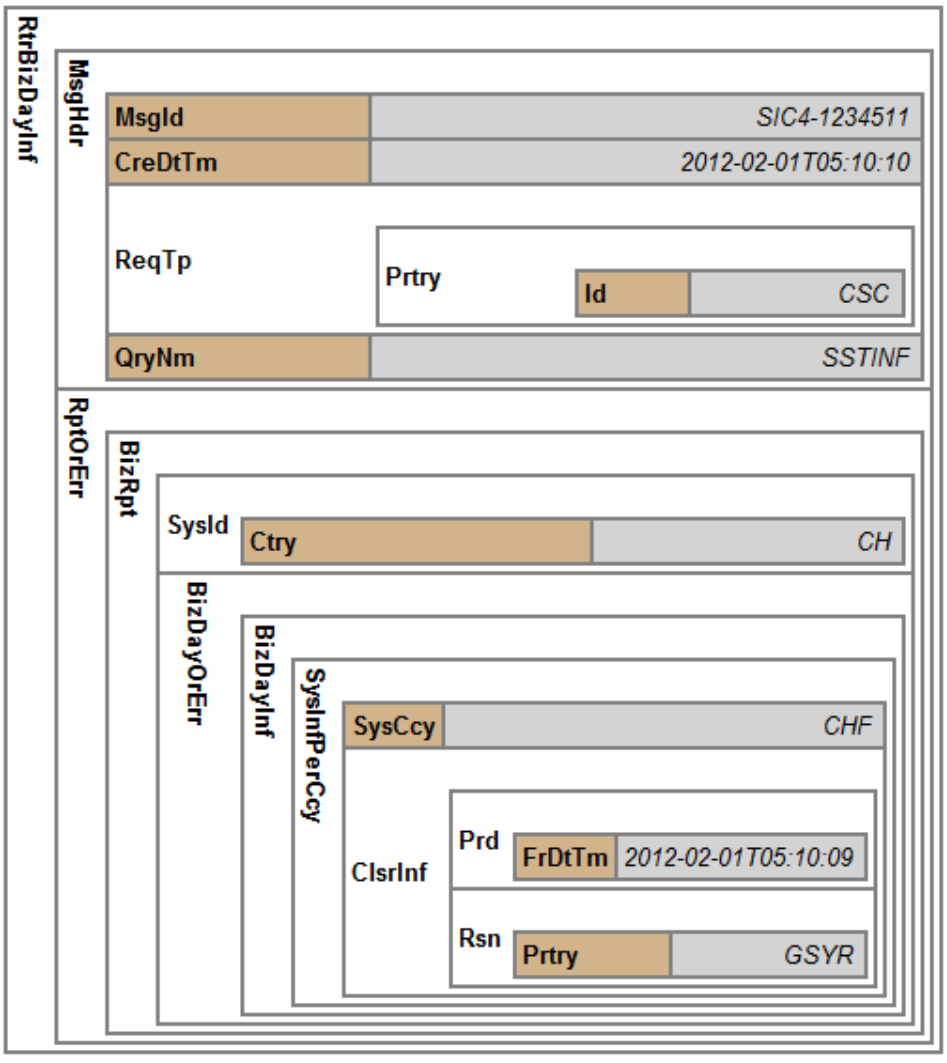


5.3 Information about a general settlement stop

The example shows the information for the participant about a general settlement stop:

Business element	Content
Message identification	SIC4-123458
Creation date and time of the message	2012-02-01T05:10:10
RTGS code	CSC
Event type	HLTINF
System identification (country)	CH
System currency	CHF
Input timestamp	2012-02-01T05:10:09
RTGS event code	GSTS

"camt.019" message for the event type HLTINF

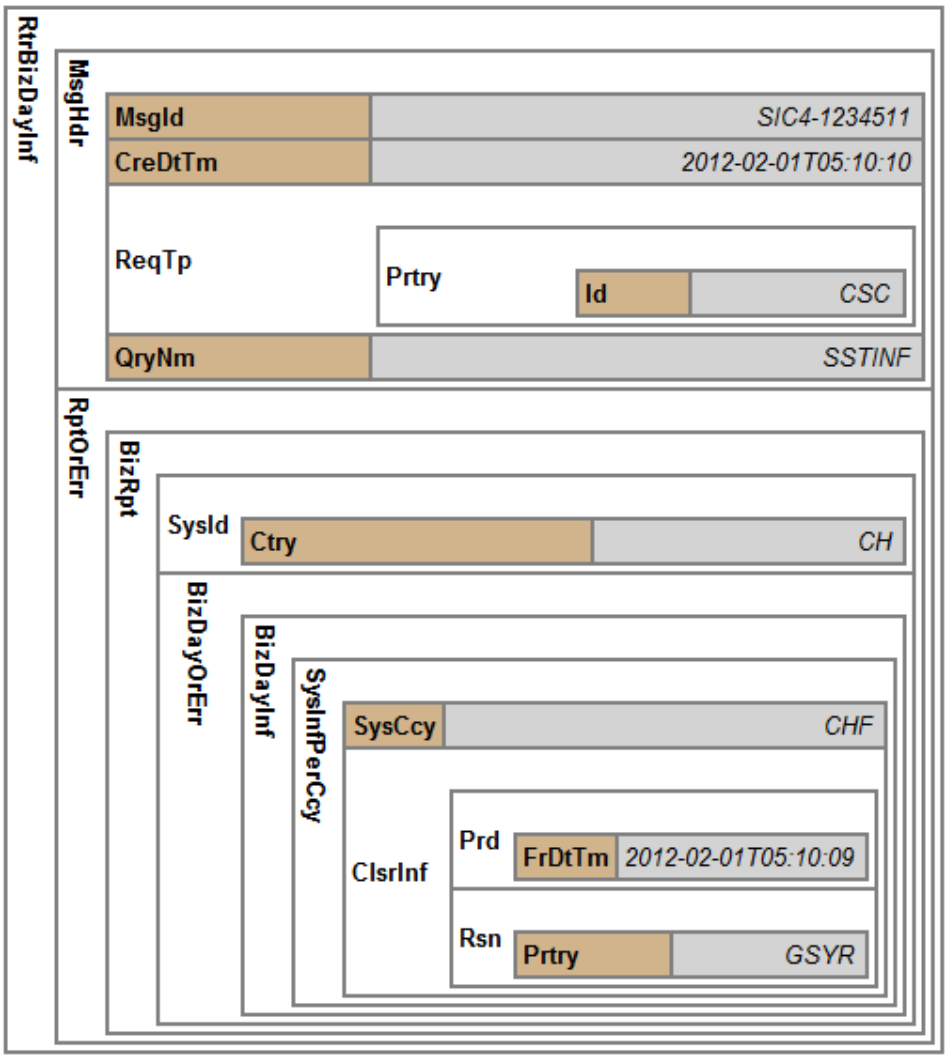


5.4 Information about a general system restart

The example shows the information for the participant about a general system restart:

Business element	Content
Message identification	SIC4-1234511
Creation date and time of the message	2012-02-01T05:10:10
RTGS code	CSC
Event type	SSTINF
System identification (country)	CH
System currency	CHF
Input timestamp	2012-02-01T05:10:09
RTGS event code	GSYR

"camt.019" message for the event type SSTINF



Appendix A: XML schema and examples

XML schema

The XML schema for "camt.019" for the RTGS systems

- ***camt.019.001.04.ch.01.xsd***

is published on the SIX Interbank Clearing Ltd website.

It should preferably be opened using specific XML software.

Examples

The examples shown in section 5 are published on the SIX Interbank Clearing Ltd website as XML files:

- ***camt_019_Beispiel_CSPINF.xml***
- ***camt_019_Beispiel_TEVINF.xml***
- ***camt_019_Beispiel_HLTINF.xml***
- ***camt_019_Beispiel_SSTINF.xml***

Validation Portal

The above mentioned example messages as well as this implementation guideline, the XML schema and additional examples can also be downloaded from the SIC & euroSIC Validation Portal Interbank Messages (https://validation.iso-payments.ch/SIC4).

After successful registration users can upload their own messages and have them validated against this implementation guideline.

Appendix B: Table of figures

Appendix C: Table of tables