



# Implementation Guidelines for ISO 20022 Interbank Messages

SIC and euroSIC

Clearing Day Information (camt.019)

Version 2.1, valid from 18 November 2022

## Change history

All the changes carried out in this document are listed below with the version number, the change date, a brief description of the change and references to the chapters affected.

Version	Date	Description of the change	Chapter
2.1	07.04.2022	Errata per SIC Platform Release 4.9	
		New CH schema version camt.019.001.07.ch.02.xsd (Details according to separate document "Overview and Change Log for the XML schemas")	1.4
2.0	30.11.2021	Complete revision due to update of ISO 20022 version 2019	All
		New "Introduction" chapter (replaces and includes the previous "Overview of the documentation structure" chapter and annexes)	1
		New ISO 20022 schema version	12
		Change the definition from SWIFT MX to ISO 20022	2
		Revision of "Technical specifications for the RTGS systems": <ul style="list-style-type: none"> <li>Altered identification of the clearing system: New codes SIC/SEU in the <i>RptOrErr/BizRpt/SysId/MktInfrstrctrId/Cd</i> element, no longer required elements <i>RptOrErr/BizRpt/SysId/Ctry</i> and <i>MsgHdr/ReqTp</i> removed from the schema</li> <li>Extension of the schema inside the B-level for possible future use:               <ul style="list-style-type: none"> <li><i>.../SysInfPerCcy/Evt</i>: Schema extended from 0..3 to 0..n (maximum usage remains unchanged)</li> <li><i>.../SysInfPerCcy/Evt/Tp/Prtry</i>: Inclusion of the <i>&lt;SchmeNm&gt;</i> and <i>&lt;Issr&gt;</i> elements</li> <li><i>.../SysInfPerCcy/Evt</i>: Inclusion of the <i>&lt;StartTm&gt;</i> and <i>&lt;EndTm&gt;</i> sub-elements</li> <li><i>.../SysInfPerCcy/ClsrInf</i>: Schema extended from 0..1 to 0..n (maximum usage remains unchanged)</li> <li><i>.../SysInfPerCcy/ClsrInf</i>: Inclusion of the <i>&lt;ToDtTm&gt;</i> and <i>&lt;DtTmRg&gt;</i> sub-elements</li> </ul> </li> </ul>	4.1, 4.2
1.4	28.02.2020	Last edition based on previous ISO 20022 version status	
1.0	21.03.2016	First edition	All

Table 1: Change history

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## General notes

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If you detect any errors in this document or have any ideas or suggestions for improvements we would be extremely grateful if you would notify these by e-mail to [operations.sic@six-group.com](mailto:operations.sic@six-group.com).

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# 1 Introduction

## 1.1 Overview of the documentation structure

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 is 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 using the ISO 20022 message standard.

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.

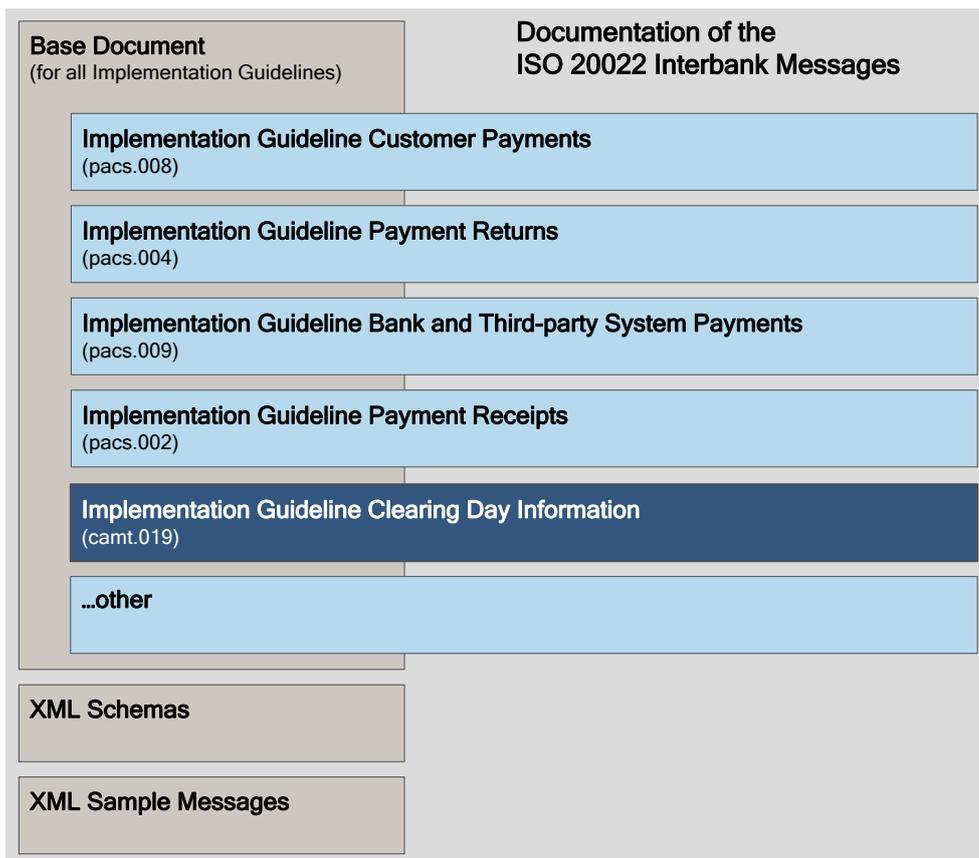


Figure 1: Documentation structure for message type "camt.019"

## 1.2 Target audience

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

## 1.3 Change control

All modifications made to this document are listed in the change history (Table 1) showing the version, the date of the change, a brief description and references to the chapters concerned.

## 1.4 XML schema

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

- ***camt.019.001.07.ch.02.xsd***

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

It should preferably be opened using for-purpose XML software.

## 1.5 Validation portal

After registration, users can upload their own messages to the SIC & euroSIC Validation Portal Interbank Messages ([validation.iso-payments.ch/SIC4](http://validation.iso-payments.ch/SIC4)) and validate them against this Implementation Guideline. In addition, sample XML messages are available in the download area of the validation portal.

## 1.6 Reference documents

Additional information on the Implementation Guidelines can be found in the reference documents listed in the Base document.

## 2 ISO 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).

The "Return Business Day Information" message is based on the ISO 20022 XML schema "camt.019.001.07".



The "camt.019" message is essentially structured as follows:

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

Figure 2: Basic message structure of the "camt.019" message

## 3 Business specifications for the RTGS systems

### 3.1 General

The "camt.019" message is used in the following use cases:

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 2: 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	TEVINP	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 3: 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

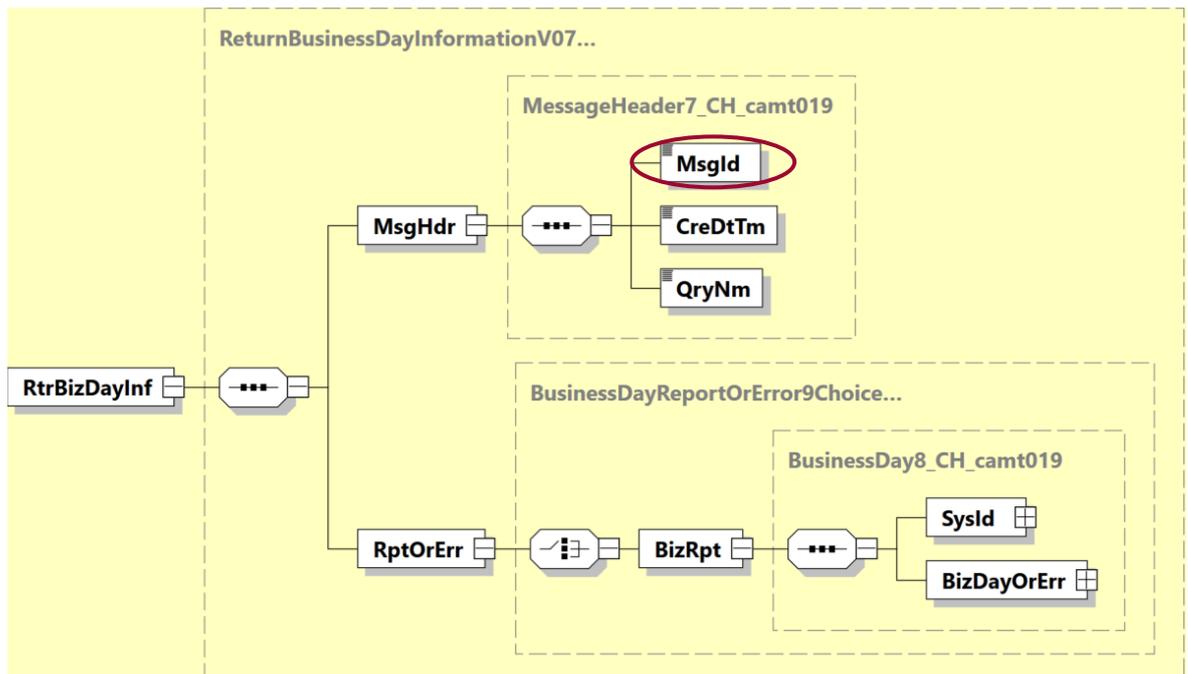


Figure 3: References in the "camt.019" message

### 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 `.../BizDayOrErr/BizDayInf/SysInfPerCcy/Evt/Tp/Prtry/Id` element:

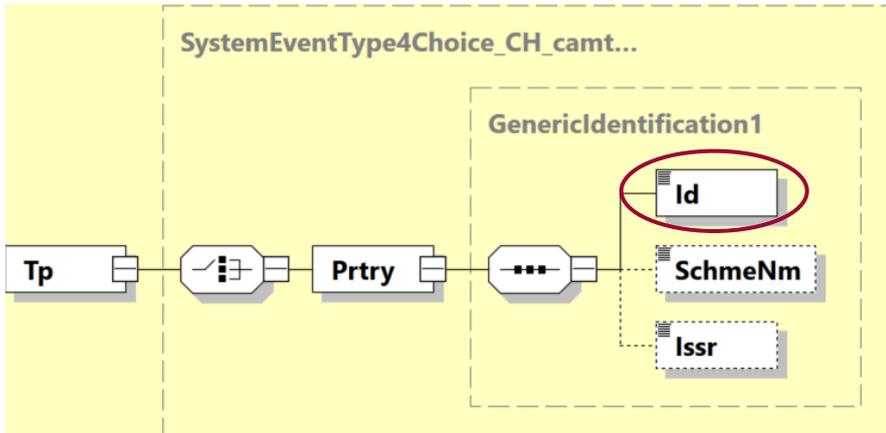


Figure 4: Specifying the code to describe the clearing day events

The following code values are defined:

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

Table 4: 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 "Start of day-end processing" (TEVINf) use case, the `.../Evt/FctvTm` element contains not only the planned time of clearing stop 1, but also the effective time at which the message from the system manager about the start of day-end processing arrived in the RTGS systems.

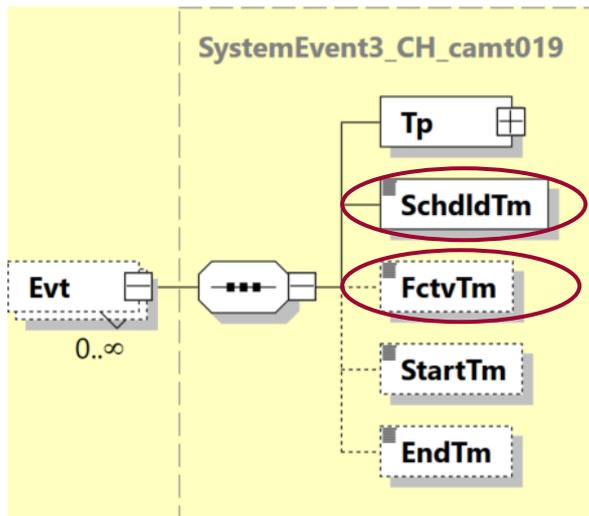


Figure 5: Times of clearing day events

### 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:

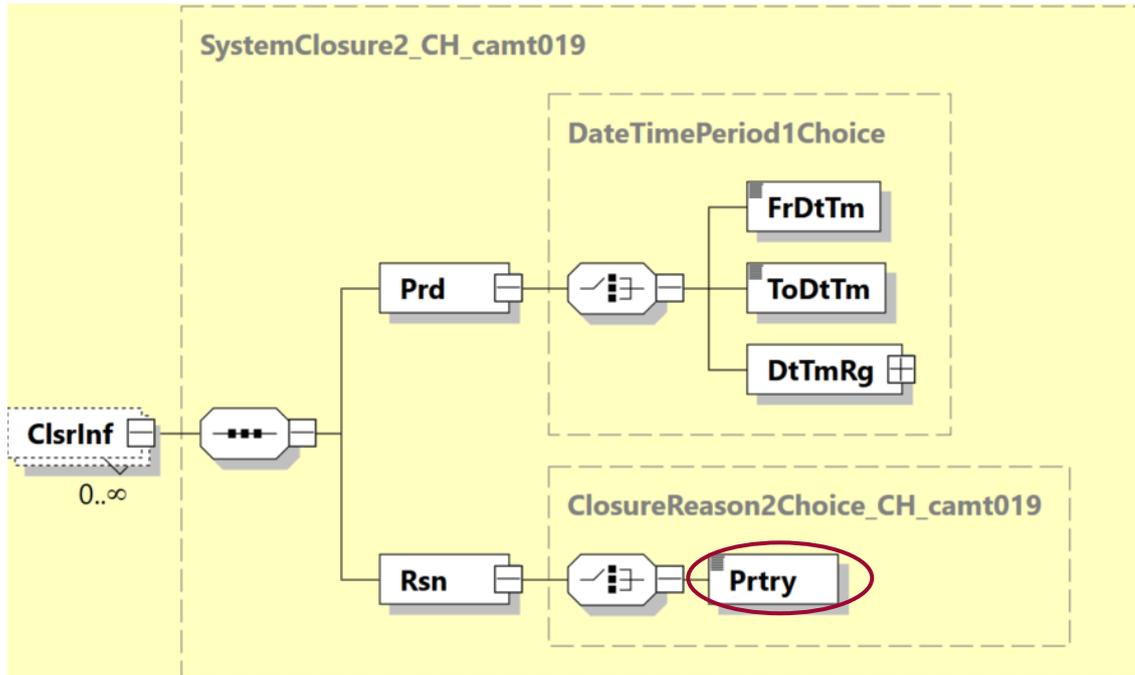


Figure 6: Specifying codes to describe the RTGS events

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 5: Code values of the RTGS events

### 3.7 Code values for backup delivery

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

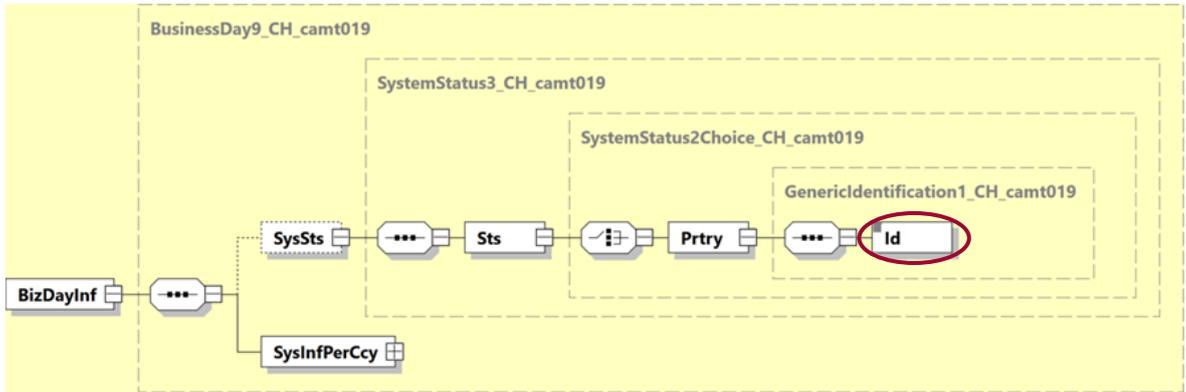


Figure 7: Specifying the code for backup delivery

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 6: Code values for backup delivery

### 3.8 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" block (A-level of the message) occurs exactly once in the message and contains the following elements:

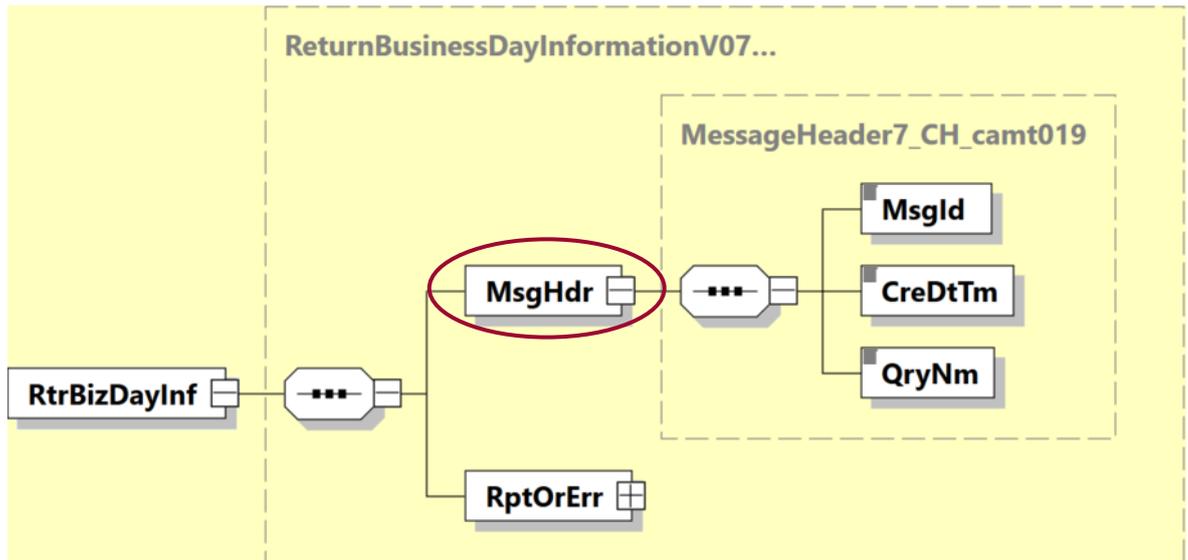


Figure 8: Message Header (MsgHdr)

The following table specifies all the elements of the "Message Header" block 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 specific Definition	
Document +Return Business Day Information V07	RtrBizDayInf	1..1	1..1			
Message Header	MsgHdr	1..1	1..1			
Message Header +Message Identification	MsgId	1..1	1..1	<b>Message Identification</b> Only the restricted character set for references (excluding spaces) is permitted for this element.		
Message Header +Creation Date Time	CreDtTm	0..1	1..1	<b>Creation Date Time</b>		
Message Header +Query Name	QryNm	0..1	1..1	<b>Event Type</b> 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 7: Message Header (MsgHdr, A-level)

## 4.2 Report or Error (RptOrErr, B-level)

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

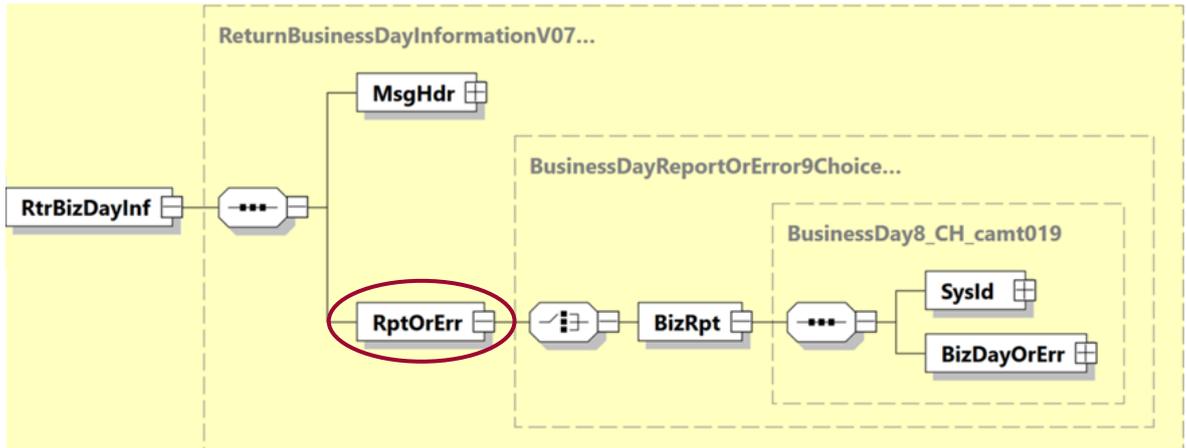


Figure 9: Report or Error (RptOrErr)

The `.../BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/Evt` sub-element is used to provide details about the clearing day events:

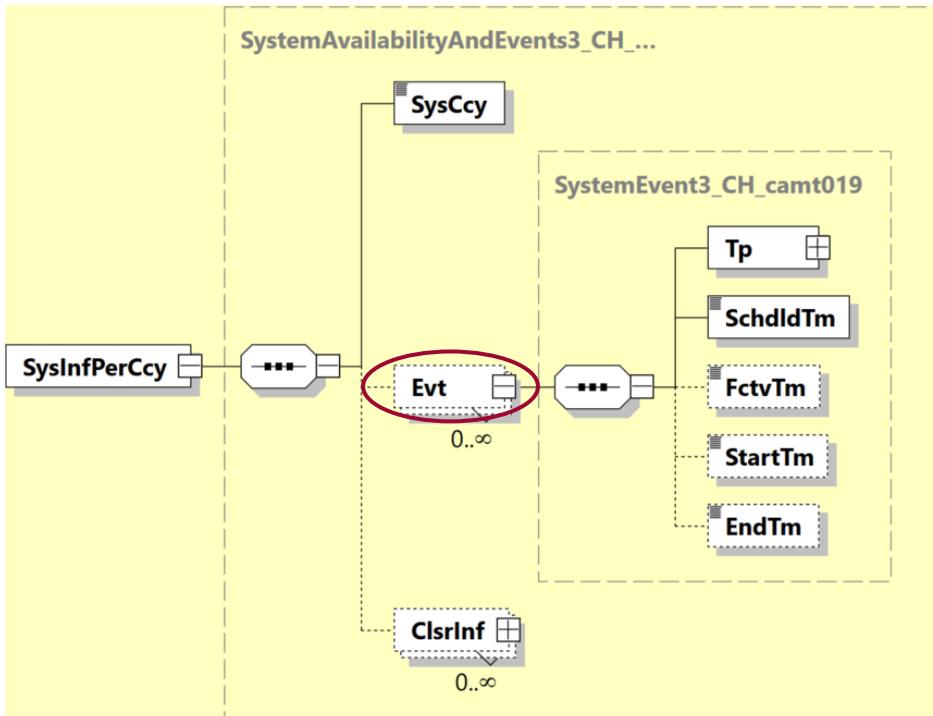


Figure 10: Listing the clearing day events with Event (Evt) elements

The `.../BizRpt/BizDayOrErr/BizDayInf/SysInfPerCcy/ClsrInf` sub-element is used to show information about RTGS events:

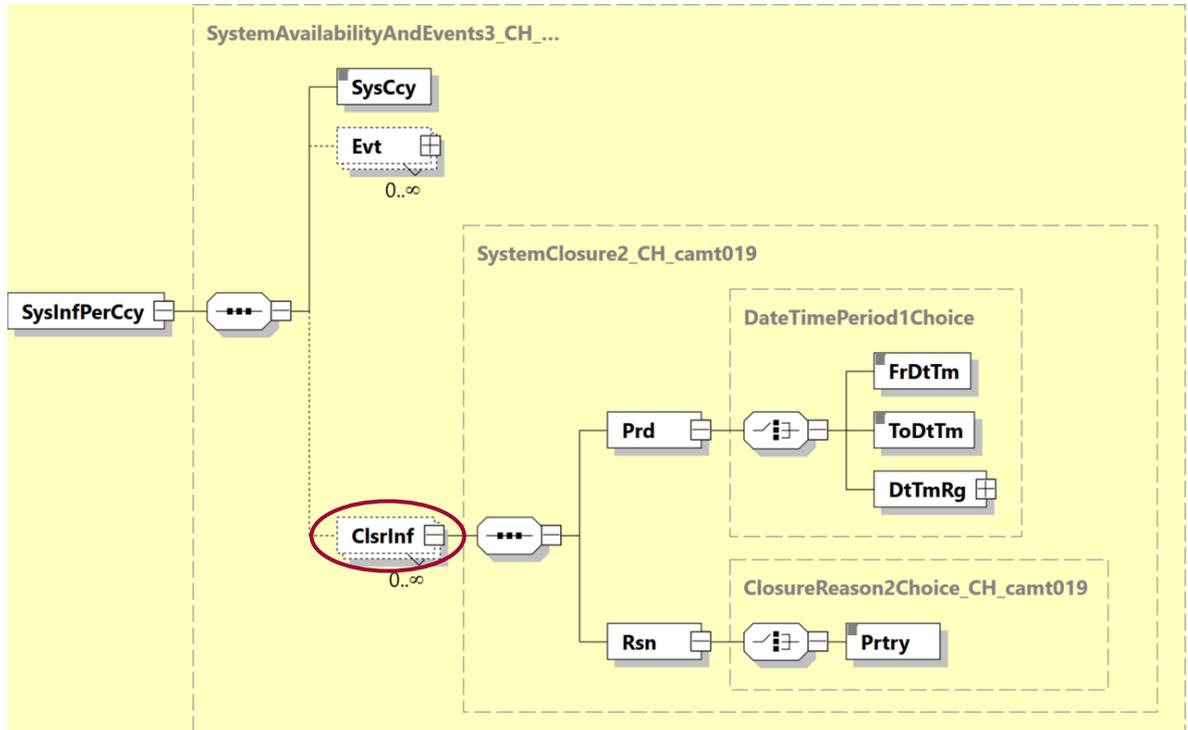


Figure 11: Listing the RTGS events with Closure Information (`ClsrInf`) elements

The following table specifies all the elements of the "Report or Error" block 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 specific Definition
Report Or Error	RptOrErr	1..1	1..1		
Report Or Error +Business Report	BizRpt	1..n	1..1		
Report Or Error +Business Report ++System Identification	SysId	1..n	1..1		
Report Or Error +Business Report ++System Identification +++Market Infrastructure Identification	MktInfrstrctrId	1..1	1..1	<b>Market Infrastructure Identification</b>	
Report Or Error +Business Report ++System Identification +++Market Infrastructure Identification ++++Code	Cd	1..1	1..1	<b>Clearing System Identification (code)</b> Unambiguous identification of the clearing system, the following code values are available: SIC (CHF only) = value SIC must be used euroSIC (EUR only) = value SEU must be used	
Report Or Error +Business Report ++Business Day Or Error	BizDayOrErr	1..1	1..1		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information	BizDayInf	1..1	1..1	<b>Business Day Information</b>	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status	SysSts	0..1	0..1	<b>Message Delivery Status</b> 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.

ISO 20022 Standard			Swiss ISO 20022 Payments Standard		
Message Item	XML Tag	Mult	Mult	Definition	Event Type specific Definition
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status +++++Status	Sts	1..1	1..1		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status +++++Status +++++Proprietary	Prtry	1..1	1..1		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Status +++++Status +++++Proprietary +++++Identification	Id	1..1	1..1	<b>Backup Delivery Code</b> 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	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency	SysInfPerCcy	0..n	1..1		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++System Currency	SysCcy	0..1	1..1	<b>Currency</b> Fix CHF for SIC, EUR for euroSIC.	

ISO 20022 Standard			Swiss ISO 20022 Payments Standard		
Message Item	XML Tag	Mult	Mult	Definition	Event Type specific Definition
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event	Evt	0..n	0..n	<b>Business Day Event Information</b> One occurrence of the element will be provided for each clearing day event (clearing stop). Max. 3 occurrences are permitted.	TEVINFIN: Exactly 1 occurrence will be provided: Clearing stop 1 CSPINFIN: 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 HLTINFIN: Not used. SSTINFIN: Not used.
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type	Tp	1..1	1..1	<b>System Event</b> The <Prtry> element will be provided.	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary	Prtry	1..1	1..1		



ISO 20022 Standard			Swiss ISO 20022 Payments Standard		
Message Item	XML Tag	Mult	Mult	Definition	Event Type specific Definition
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary +++++Identification	Id	1..1	1..1	<b>System Event Code (proprietary)</b> The following codes are defined: CS1 = Clearing stop 1 CS2 = Clearing stop 2 CS3 = Clearing stop 3	TEVINFIN: Only CS1 will be provided.
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary +++++Scheme Name	SchmeNm	0..1	0..1	Is not used by RTGS (retained in message definition for possible future use).	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event +++++Type +++++Proprietary +++++Issuer	Issr	0..1	0..1	Is not used by RTGS (retained in message definition for possible future use).	

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	XML Tag	Mult	Mult	Definition	Event Type specific Definition	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++Scheduled Time	SchlddTm	1..1	1..1	<b>Scheduled Time</b> Scheduled time for the indicated clearing stop.		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++Effective Time	FctvTm	0..1	0..1	<b>Effective Time</b>	TEVINP: Documents the time at which the system manager's message to start day-end processing arrived in the RTGS system. CSPINP: Not used.	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++Start Time	StartTm	0..1	0..1	<b>New Clearing Day</b> Is not used by RTGS (retained in message definition for possible future use).		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Event ++++++End Time	EndTm	0..1	0..1	<b>Past Clearing Day</b> Is not used by RTGS (retained in message definition for possible future use).		

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	XML Tag	Mult	Mult	Definition	Event Type specific Definition	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information	ClsrInf	0..n	0..n	<b>Stop or Restart Information</b> RTGS Information about a general settlement stop/settlement restart or system stop/system restart. Max. 1 occurrence is permitted.	TEVINP: Not used. CSPINF: Not used.	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period	Prd	0..1	1..1			
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period +++++From Date Time	FrDtTm  {Or	1..1	1..1	<b>Input Timestamp</b> Documents the reception time of the system manager message regarding general settlement stop/settlement restart or system stop/system restart in the RTGS system.		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information +++++Period +++++To Date Time	ToDtTm	1..1	1..1	Is not used by RTGS (retained in message definition for possible future use).		

ISO 20022 Standard			Swiss ISO 20022 Payments Standard			
Message Item	XML Tag	Mult	Mult	Definition	Event Type specific Definition	
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information ++++++Period +++++++Date Time Range	DtTmRg  Or}	1..1	1..1	Is not used by RTGS (retained in message definition for possible future use).		
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information ++++++Reason	Rsn	1..1	1..1			
Report Or Error +Business Report ++Business Day Or Error +++Business Day Information ++++System Information Per Currency +++++Closure Information ++++++Reason +++++++Proprietary	Prtry	1..1	1..1	<b>Event Code</b> Code to identify the RTGS event.	HLTINF: GSTS = General Settlement Stop GSTR = General Settlement Restart  SSTINF: GSYS = General System Stop GSYR = General System Restart	

Table 8: Report or Error (RptOrErr, B-level)