



# TEMENOS

The software specialist for banking and finance



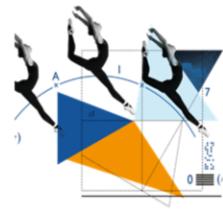
# TPH Training - Day 4

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### Objectives

- Understand the Clearing Framework
  - Inward Framework
  - Outward Framework
  - Credit Transfer
  - Direct Debit
  - Single Transfer
  - Bulk Transfer
  - Clearing Tables
    - PP.CLEARING
    - PP.CLEARING.SETTING
    - PP.CLEARING.NATURECODE
- Process SEPA Credit Transfer Payments



End of Day 1 – Learning objectives will be met.



**SCOPE:** TPH Clearing Framework business processes, transactions, rules for execution and related messages for Credit Transfers, Direct Debits and Reversals from Customer to Bank and between banks across an automated clearing house (ACH) and real time gross settlement systems (RTGS).

Inward Framework – Framework to accept both XML and non XML messages. It is also capable of accepting both bulk and single messages. It can be used with IIB as the ESB, any other ESB other than IIB as well as without IIB.

Generic local clearing payment processing – Based on highly flexible configuration process local clearing payments end to end. Can process both credit transfers as well as direct debits including returns, refunds, reversals etc.

Outward Framework – Raise settlement entries and in-charge of outward file generation.

- Enables receiving
  - XML file using IIB (ESB from IBM)
  - XML files using an ESB other than IIB
  - XML files without ESB
  - Non XML files

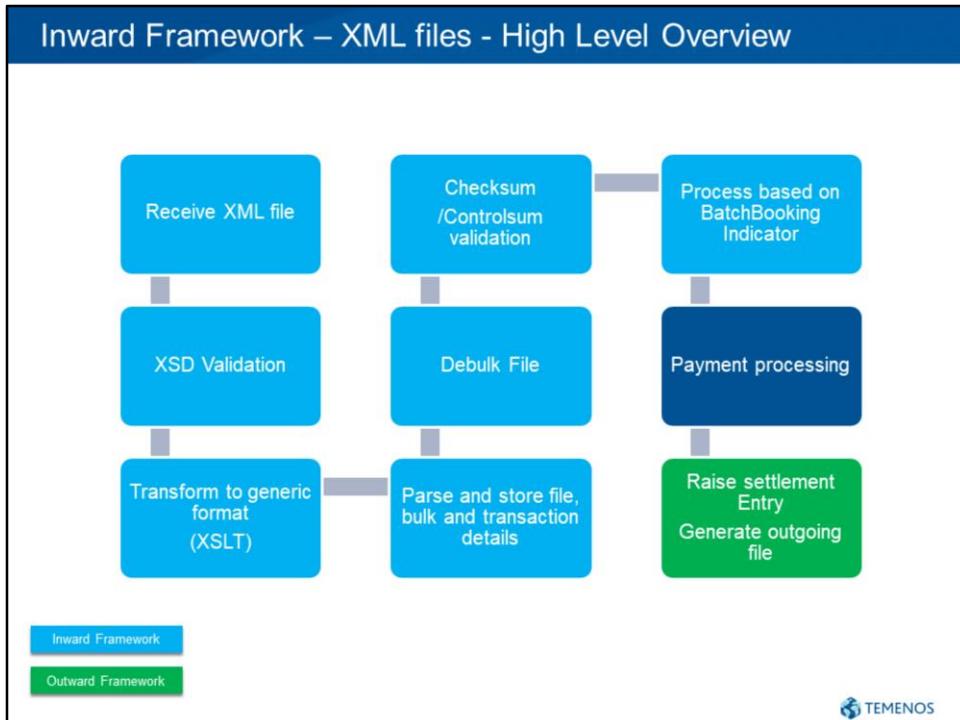


Inward Clearing Framework is responsible for receiving and mapping payment messages/files in ISO20022 message format or in the payment hub format. It supports the following functionality –

Validate ISO20022 message against the Schema (XSD) and reject the message/file, if it is invalid. Rejected file/message details will be recorded in TPH in PPT.RECEIVEDFILEDETAILS with “REJECTED” status, along with the reason for rejection.

Transform ISO20022 or other XML file to TPH internal format in the ESB. Provide ability to accept and process any proprietary message formats of the bank. Proprietary formats need to be transformed into ISO20022 or TPH internal format, before they are fed to the Message Transformation service in the ESB.

Identify incoming business event/transaction type and invoke appropriate business workflow. Default the “ClearingTransactionType” attribute based on the incoming business event/transaction type.



XSD Validation - ISO published XSDs

pain.001,pain.008,pain.007,pacs.003,pacs.008,pacs.004,pacs.007,pacs.002,camt.056, camt.029

XSLT Transformation – Transform to generic schema. Queue name is hardcoded at this juncture. One queue per message

Check sum validation - Done only for pain.001 and pain.008 messages. This is skipped for INST payments as they are single message. Skipping is done based on queue name.

Debulk file – Debulk into single transactions. Each transaction will contain the file and bulk header along with transaction information. Bulk number and transaction number are assigned at this juncture.

Once debulked, messages are posted into a JMS queue from where it is consumed by the OFS layer.

## File Acceptance

- An XML file received could result in
  - XSD validation failure and/or
  - XSLT transformation failure and/or
  - Checksum validation failure
  - File Duplicate
- Send ACK/NACK based on configuration

PP.MSG.ACCEPTANCE.PARAM		IN_PAIN001
Originating Channel	IN_PAIN001	PAIN001
Single Multiple Indicator	S	
Validate API	InwardMappingFramework.mapCTITransaction	
Check Duplicate Indicator	Y	
ACK Required Indicator	N	



When a file is received by the payments hub, system provides flexibility to send an ACKnowledgement or a Negative ACKnowledgement to the sender of the file. This is configuration driven.

Configuration in PP.MSGACCEPTANCEPARAM defines the API to be used to send ACK/NACK at file level.

## File Validations – File Duplicate

- Enable or disable based on PP.MSG.ACCEPTANCE.PARAM

PP.MSG.ACCEPTANCE.PARAM IN_PAIN001	
Originating Channel	IN_PAIN001
Single Multiple Indicator	S
Validate API	InwardMappingFramework.mapCTITransaction
Check Duplicate Indicator	<input checked="" type="checkbox"/> Y
ACK Required Indicator	<input type="checkbox"/> N

- If file level duplicate check is enabled, system will verify based on

```
<?xml version="1.0" encoding="UTF-8"?>
<Sample XML file generated by XMLSpy v2011 rel. 2 0>
<Document xmlns="urn:laq:std:iso:20022:tech:ggdipain.001">
<CdtTrxRfInitn>
<GrpHdr>
<MsgId>MDSE43</MsgId>
<SeqNm>00000000000000000000</SeqNm>
<CreDtTm>2022-07-12T10:00:00Z</CreDtTm>
<NbOfTxns>1</NbOfTxns>
<CtrlSum>52_03</CtrlSum>
<InitgPty>
<Nm>SCT2211</Nm>
<PstlAdr>
<BlkgtNm>FRANKFURT</BlkgtNm>
<PstCd>D-64007</PstCd>
<TwnNm>Frankfurt</TwnNm>
<Ctry>DE</Ctry>
</PstlAdr>
</InitgPty>
</CdtTrxRfInitn>
</Document>
```

- Internal file that holds the message IDs to check for duplicates – PRF.DUPLICATEFILECHECK



- Perform additional validations for messages received by invoking a Validation API attached to the Channel (Queue name) in PP.MSG.ACCEPTANCE.PARAM.
- Perform duplicate check based on Unique File Reference [Future Roadmap – To provide ability to perform flexible Technical Duplicate check based on additional attributes in the file/message]
- Accept or reject the file based on the above validations.

## File Validations

- Total number of transactions
  - The total number of transactions specified in the message should be equal to the number of transactions received in the message
    - Total number of transactions in the Group Header = Sum of ('Total number of transactions' per bulk.)
- Total amount
  - Total amount specified in the message should be equal to the sum of the individual payments in the file
    - Control Sum of the GroupHeader = Sum of (Control Sum per bulk)



System does File Validations using this calculation.

## Bulk Validation

- Batch Booking Indicator (In pain.001)
  - "True" - Total amount for all payments within the segment is mentioned.
- Currency check
  - Currencies of all transactions within a bulk should be the same.
- Total number of transactions within a bulk
  - Total number of transactions specified at the bulk level should be equal to the number of transactions received within the bulk.
    - Value of tag NoOfTxs (in PmtInf) = Count of individual payments within the bulk
- Total amount of the bulk
  - Total bulk amount specified in the message should be equal to the sum of individual transaction amounts in the batch.
    - ControlSum in PmtInf = Sum of amounts of all individual transactions within a bulk



System does Bulk Validations using this calculation.

## Viewing status of files received

User Menu > Received Files

File Reference	Queue Name	Company	File Status	File Name	Source	Single Multiple Ind
SALBATCH9	SWIFT		REJECTED		SWIFT	S
PPMAC00001	SWIFT		REJECTED		SWIFT	S
PPMAC00002	PMTROUTER		REPAIR			
PPMAC00003	PR-BATCH		RECEIVED			

**Received File Details PPMAC00002**

View	Audit	Initiating Party Details
Message/File Reference PPMAC00002		
Received Date Time 20180703110659718		
Message/File Status REPAIR		
Queue Name PMTRROUTER		

**Received File Details SALBATCH9**

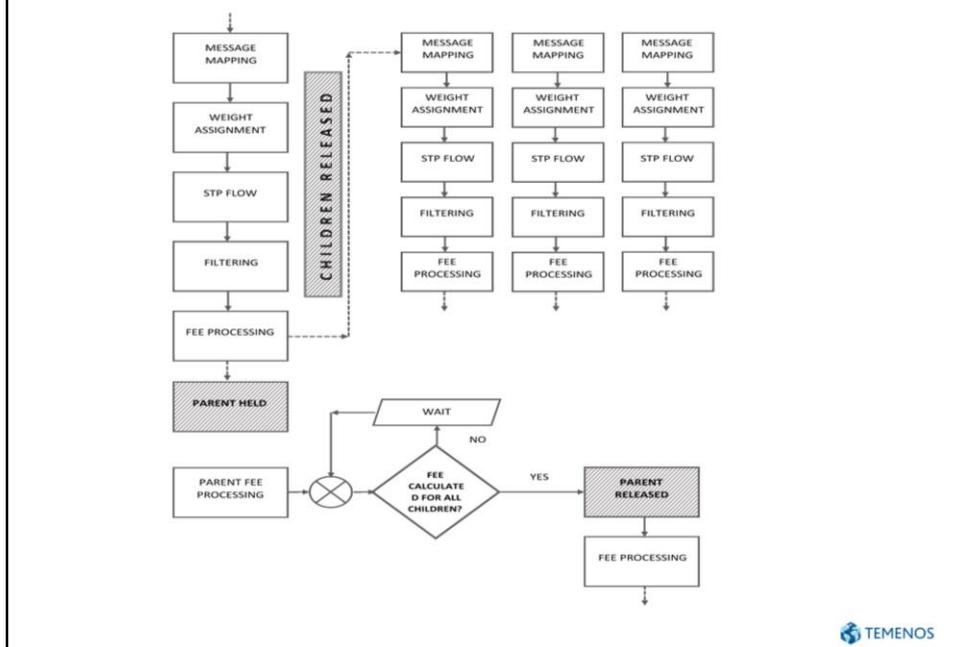
View	Audit	Initiating Party Details
Message/File Reference SALBATCH9		
Received Date Time 2018070219004718		
Channel SWIFT		
Single Multiple Indicator S		
Message/File Status REJECTED		
Error Code MAC10006		
File Type Indicator P		
Queue Name SWIFT		

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File will have status REPAIR when

- Underlying configuration data record – PP.MSGACCEPTANCEPARAM is not available
- Receiver BIC is present in the XML file, but based on the receiver BIC, company could not be determined. Receiver BIC would always be the BIC of the process company. If the Receiver BIC is Incorrect, then, file cannot be processed there on.
- In case a file or bulk has the status ‘Repair’ then the file or individual bulk can be resubmitted from the File / Received messages GUI. This should be done after the configuration problem is solved in the system.

## Batch Processing – Flow Diagram



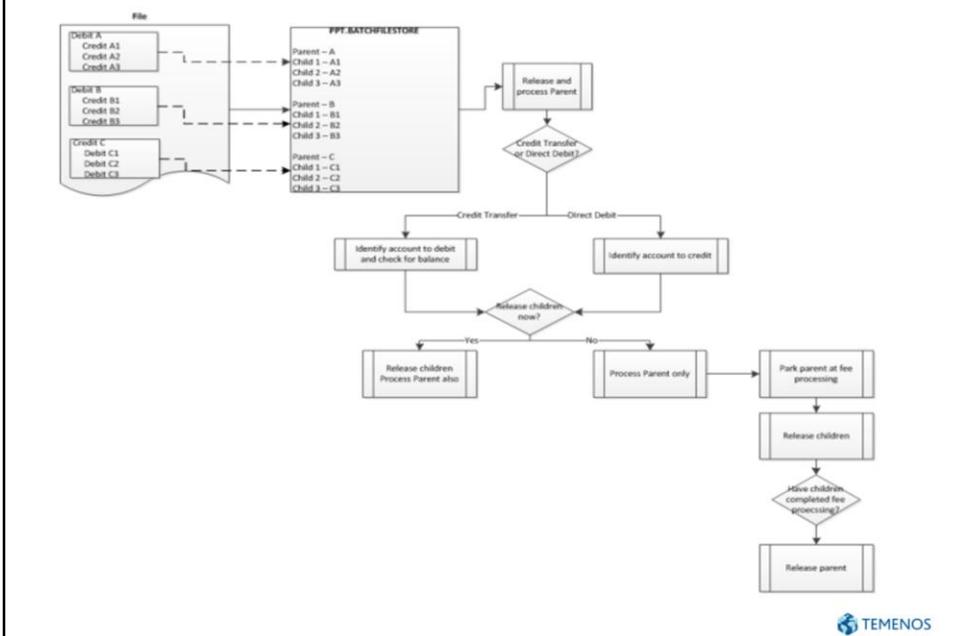
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TPH supports processing of bulk payments otherwise called batch payments. This framework enables handling of

- Single debit and multiple credits (Credit Transfer Batches)
- Single credit and multiple debits (Direct Debit Batches)

Each batch consists of a parent transaction and one or more child transactions.

## Batch Processing – Flow Diagram



All transactions are staged in a staging table named PP.BATCHFILESTORE. It is from this table that the parent is released first for processing.

In case of a credit transfer batch, the account belonging to the parent is the one to be debited. Hence, system will perform balance reservation on the account (If configured to do so). In case of a direct debit batch, balance reservation is not required.

When processing a batch, it is possible for some of the child transactions to be 'Book' payments and some to be 'Outgoing' payments. Hence, it could be required to charge a separate fee per transaction. This fee per transaction could also differ based on the country/party to which the payment is being sent to. To enable this process, the batch processing framework allows the following

Payments are staged in PP.BATCHFILESTORE

Parent is released and processed first and parked in 637

Children are released and processed

Once children cross fee calculation, parent is released

Children

Get parked in status 706 (Awaiting settlement) if they are to be sent via Clearing

Get sent out as SWIFT messages (If they are non local-clearing messages)

Get book and status moves to 999 if they are BOOK payments.

Fee for the children are calculated and recorded as informational fee

Parent's fee is calculated. Informational fee is now transformed as real fee for the parent and is debited from the parent. Parent completes processing and is set to

status 999 (As it is a book payment)

In certain cases, it would be required to charge a fee per batch (A fixed fee irrespective of the number of transactions in a batch) or a fee based on number of transactions in a batch (Irrespective of the type of transaction). To enable this, the batch processing framework allows the following

Payments are staged in PP.BATCHFILESTORE

Parent is released and processed until payment finalisation in the STP process

Children are released

Children

Get parked in status 706 (Awaiting settlement) if they are to be sent via Clearing

Get sent out as SWIFT messages (If they are non local clearing messages)

Get book and status moves to 999 if they are BOOK payments.

Parent's fee is calculated and parent completes processing and is set to status 999 (As it is a book payment)

## Process Flow – Message Acceptance

Message Received in Queue

Received Message/File Details - List								
File Reference	Queue Name	Company	File Status	File Name	Source	Single Multiple Ind		
PPMAC0005	PR-BATCH		RECEIVED					

Message Acceptance Service

Received Message/File Details - List								
File Reference	Queue Name	Company	File Status	File Name	Source	Single Multiple Ind		
PPMAC0005	PR-BATCH	BNK	ACCEPTED		PMTROUTER	B		

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## View accepted and de-bulked messages

PPT.BATCHFILESTORE - Default List

Transaction Ref	Originatingreference	Originatingchannel	FilerefERENCE	Filename	
<a href="#">PPBFS-18449-0779588367.00</a>	99999999999999	PMTROUTER	PPMAC0005		
<a href="#">PPBFS-18449-0779588367.01</a>	99999999999999	PMTROUTER	PPMAC0005		
<a href="#">PPBFS-18449-0779588367.02</a>	99999999999999	PMTROUTER	PPMAC0005		
<a href="#">PPBFS-18449-0779588367.03</a>	99999999999999	PMTROUTER	PPMAC0005		



## Debulked as 'P'arent and 'C'hild messages

**PPT.BATCHFILESTORE - Default List**

Transaction Ref	Originatingreference	Originatingchannel	Filereference	Filename
<a href="#">PPBFS-18449-0779588367.00</a>	99999999999999	PMTROUTER	PPMAC0005	
<a href="#">PPBFS-18449-0779588367.01</a>	99999999999999	PMTROUTER	PPMAC0005	
<a href="#">PPBFS-18449-0779588367.02</a>	99999999999999	PMTROUTER	PPMAC0005	
<a href="#">PPBFS-18449-0779588367.03</a>	99999999999999	PMTROUTER	PPMAC0005	

**PPT.BATCHFILESTORE : PPBFS-18449-0779588367.00**

Originating Reference	99999999999999	
Originating Channel	PMTROUTER	
File Reference	PPMAC0005	
Company ID	BNK	
Message Content	BSPARENT PBH0RG80010001DEMOGBPX 11029 Apple Inc. Hollyhill Industrial Estate Hollyhill,Cork,Republic of Ireland Premium Corporate Customer 9999999999999AOLSAL20170417201704171602020000000000000150000000 03	
Message Format	BSPARENT	
Status	R	
Processing Date	17 APR 2017	17 APR 2017
Input Channel	AOL	
Incoming Message Type	SAL	
Transaction Type Indicator	P	

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2<sup>nd</sup> screen print shows the de-bulked message.

This salary batch has 1 parent and 3 children

For two of the children – Beneficiary is not in out books. So, it will be an outgoing payment and hence a SWIFT 103 will be generated.

## De-bulked 'C'hild payments



## Parent Processed till Fee Determination

Parent mapped in POR.TRANSACTION

Pending and Processed Payments

Company	FT Number	Ccy	Amt	⊖	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	⊖
BNK	BNK17107GHG0LDGF	GBP	150.00							9999999999999999	4	Completed - Message Mapping	⊖

Batch File Store - List

Originating Reference	Channel	File Reference	Company ID	Message Format	Status
99999999999999	PMTROUTER	PPMAC0005	BNK	BSPARENT	M →

Pending and Processed Payments

Company	FT Number	Ccy	Amt	⊖	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	⊖
BNK	BNK17107GHG0LDGF	GBP	150.00	BNK	11029	GBP	17 APR 2017			9999999999999999	637	Waiting - Fee Processing	⊖



Status 4 – Message Mapped

## Start payment processing for 'C'child

Mapping Service  
(Children)

Batch File Store - List						
Originating Reference	Channel	File Reference	Company ID	Message Format	Status	
9999999999999999	PMTROUTER	PPMAC0005	BNK	BSPARENT	M	⊕ →
9999999999999999	PMTROUTER	PPMAC0005	BNK	BSCHILD	M	⊕ →
9999999999999999	PMTROUTER	PPMAC0005	BNK	BSCHILD	M	⊕ →
9999999999999999	PMTROUTER	PPMAC0005	BNK	BSCHILD	M	⊕ →

Child Records

Mapping Service  
(Children)

Pending and Processed Payments												Results 1 - 4 of 4	
Company	FT Number	Ccy	Amt	↓	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	↓
BNK	BNK17107GHGOLDGF	GBP	15.00	BNK	11029	GBP	17 APR 2017		9999999999999999	637	Waiting - Fee Processing	⊕	⊕
BNK	BNK17107HMOKHMLF	GBP	100.00						89139020225599	89139020225599	4	Completed - Message Mapping	⊕
BNK	BNK17107KGSCMHGK	GBP	20.00						89139020225600	89139020225600	4	Completed - Message Mapping	⊕
BNK	BNK17107BHMJKJDO	GBP	30.00						89139020225601	89139020225601	4	Completed - Message Mapping	⊕

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1. Screen print 1 - Children mapped
2. Screen print 2 – Children mapped and ready for Weight

Start payment processing for 'C'hild



## Start payment processing for 'C'hild-Child Payment Scenarios

Scenario 1-First Child is reversed due to some failure and reach 993 status

Company ID : BNK	INF	Message mapped according to parameters.	HDR01
FT Number : BNK17107MDK0HMLF	INF	Weight assigned successfully	
	INF	Inbound Coinedrent processed successfully	
	INF	SL successfully determined	
	INF	Automated Report Test not required for this weight and specific weight	
	INF	Payment Successfully initiated	
	INF	Debit Authority successful - Debit Authority indicator set	S
	INF	Credit Party Successfully Determined	GBP1280000020001
	INF	Credit Party Rate Detected	A0WNG
	INF	Over Account successfully Determined	Y
	INF	Direction and Transfer type successfully determined	BC
	INF	Product determination successful	HAAPMPHC1811314019-20161022PMTRUTERDEFULTLEADERBOOKBNK
	INF	Credit Party successfully determined	74151..BNK/
	INF	Debit Main Account Successfully Validated	BNK000120000000000100P
	INF	Credit Main Account Successfully validated	BNK74152600
	INF	The Funds Authorization process is skipped for the payment	=====
	INF	Client Condition read successfully	=====
	INF	Client Condition read successfully	=====
	INF	Data determination successful	PWCD20170417CV0201704200502/201704200502/C00180/201704170X020
	INF	Duplicate check performed successfully	
NON_FATAL_ERROR	INF	Returned from T22 CurrencyExchangeService through output variable calculateValues.messageInfo	FVCT0001 EB.RTN.SELL.MD.REVAL.RATE.MSS
		CH02 payment is reversed, STP successfully completed	
	INF	End of STP processing in Single Row service	000019
	INF	Status code changes to ready for Risk Filter	
	INF	Risk filtering skipped	B
	INF	Record key - ClientCharge table uses for peeling off	Y20181021?????BNK?????
	INF	Fee Processing Skipped for Credit side charges	

Pending and Processed Payments												
Company	FT Number	Ccy	Amnt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	
BNK	BNK17107GHGOLDGF	GBP	150.00	BNK	11029	GBP	17 APR 2017	9999999999999999	637	Waiting - Fee Processing	00 B	
BNK	BNK17107MDK0HMLF	GBP	100.00	BNK	GBP1280000020001	GBP	17 APR 2017	89139020225599	89139020225599	993	Payment Reversal Successful	00 B
BNK	BNK17107KGCMH0K	GBP	20.00	BNK	GBP1280000020001	GBP	17 APR 2017	89139020225600	89139020225600	687	Payment Generation Successful	00 B
BNK	BNK17107BHMKJ00	GBP	30.00	BNK	GBP1280000020001	GBP	17 APR 2017	89139020225601	89139020225601	687	Payment Generation Successful	00 B

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## View processed details for First 'C'child

<b>Payment Information</b> Results 1 - 1 of 1 Company ID : BNK FT Number : BNK17107FMOKHMLF Options : <a href="#">Batch information</a>	<b>Batch Information for Child Payments</b> BNK17107FMOKHMLF Batch Information for Child Payments Parent FT Number BNK17107GHG2LDGF Parent Account Company ID BNK Parent Account 11029 Parent Account Currency GBP Parent Business Line 999 Parent Client ID 100282 Parent Residency US Batch Reference 99999999999999																																	
<b>Posting Lines</b> Results 1 - 1 of 1 Company ID : BNK FT Number : BNK17107FMOKHMLF Options : <a href="#">Posting Lines</a>																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pstg Line No</th> <th>Reserv Key</th> <th>Acc Comp Id</th> <th>Acc Num</th> <th>Acc Ccy</th> <th>Deb/Cre Ind</th> <th>Ccy</th> <th>Amt</th> <th>Value Date</th> <th>Rev Ind</th> <th><a href="#">View Statement</a></th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>BNK</td> <td>GBP12800000020001</td> <td>GBP</td> <td>D</td> <td>GBP</td> <td>100</td> <td>20170419</td> <td></td> <td><a href="#">View Statement</a></td> </tr> <tr> <td>2</td> <td></td> <td>BNK</td> <td>11029</td> <td>GBP</td> <td>C</td> <td>GBP</td> <td>100</td> <td>20170419</td> <td></td> <td><a href="#">View Statement</a></td> </tr> </tbody> </table> <p style="text-align: center;">1st Child Payment is failed due to some reason and payment is reversed so that Batch Suspense Account is debited and Parent Debit Account is credited instead of crediting customer account.</p>		Pstg Line No	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Deb/Cre Ind	Ccy	Amt	Value Date	Rev Ind	<a href="#">View Statement</a>	1		BNK	GBP12800000020001	GBP	D	GBP	100	20170419		<a href="#">View Statement</a>	2		BNK	11029	GBP	C	GBP	100	20170419		<a href="#">View Statement</a>
Pstg Line No	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Deb/Cre Ind	Ccy	Amt	Value Date	Rev Ind	<a href="#">View Statement</a>																								
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2		BNK	11029	GBP	C	GBP	100	20170419		<a href="#">View Statement</a>																								
<b>Fees Appd for Debit Credit Charges</b> Results 1 - 1 of 1 Company ID : BNK FT Number : BNK17107FMOKHMLF Options : <a href="#">Fees Applied</a>																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Fee Type</th> <th>Fee Desc</th> <th>Type Of Chge</th> <th>Fee Ccy</th> <th>Fee Amt</th> <th>Chg Ccy</th> <th>Chg Amt</th> <th>Chg Pty Indic</th> <th>Tax Pty Indic</th> <th><a href="#">View</a></th> </tr> </thead> <tbody> <tr> <td>TRANSACTIONFEE</td> <td>Transaction Fee</td> <td>I</td> <td>GBP</td> <td>5</td> <td>GBP</td> <td>5</td> <td>D</td> <td></td> <td><a href="#">View</a></td> </tr> </tbody> </table>		Fee Type	Fee Desc	Type Of Chge	Fee Ccy	Fee Amt	Chg Ccy	Chg Amt	Chg Pty Indic	Tax Pty Indic	<a href="#">View</a>	TRANSACTIONFEE	Transaction Fee	I	GBP	5	GBP	5	D		<a href="#">View</a>													
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TRANSACTIONFEE	Transaction Fee	I	GBP	5	GBP	5	D		<a href="#">View</a>																									

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## Start payment processing for 'C'child-Child Payment Scenarios

Second Child Payment is successful

Repair View Screen : OE110722999

Payment Processing Information		Processing Company	
Status	SHK	SHK	
Transaction Reference	SHK117107NONGCMRHK	Processing Date	17 APRIL 2017
Reference Number			
Source Reference Number	991396000223600		
Priority	1		
Source Reference	991396000223600		
Source	AOL		
Output Channel	NOSTRO		
Direction	O		
Transaction Currency	GBP		
Transfer Type	C	Transaction Amount	20.00
Incoming Message Type	SAL	Charge Option	SHK
Balance Reservation	S	Receiver Institution	BARCODE22
		Receiver Institution N/C	/SC204744

Debit Credit Info	Error Information	Charge Information	Routing Information	Additional Information	Audit																																																																		
<table border="1"> <tr> <td colspan="2">Debit Side Information</td> <td colspan="2">Credit Side Information</td> <td colspan="2"></td> </tr> <tr> <td>Debit Account Company</td> <td>SHK</td> <td>Credit Account Company</td> <td>SHK</td> <td>Credit Account Number</td> <td>23701</td> </tr> <tr> <td>Debit Account Number</td> <td>GBP1280000020001</td> <td>Credit Account Currency</td> <td>GBP</td> <td>Credit Amount</td> <td>20.00</td> </tr> <tr> <td>Debit Account Currency</td> <td>GBP</td> <td>Credit Account Amount</td> <td>20.00</td> <td>Credit Value Date</td> <td>18 APR 2017</td> </tr> <tr> <td>Debit Amount</td> <td>20.00</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Debit Value Date</td> <td>18 APR 2017</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ordering Account</td> <td>/11028</td> <td>Beneficiary Account</td> <td>/12345</td> <td></td> <td></td> </tr> <tr> <td>Ordering Name</td> <td>Coca-Cola</td> <td>Beneficiary Name</td> <td>TMR</td> <td></td> <td></td> </tr> <tr> <td>Ordering Address</td> <td>1 COCA-COLA PLAZA</td> <td>Beneficiary Address</td> <td>PRINCES STREET</td> <td></td> <td></td> </tr> <tr> <td>Ordering Town/PostalCode - 1</td> <td>ATLANTA</td> <td>Beneficiary Town/PostalCode - 1</td> <td>EDINBURGH</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>Beneficiary Town/PostalCode - 2</td> <td>EH2</td> <td></td> <td></td> </tr> </table>						Debit Side Information		Credit Side Information				Debit Account Company	SHK	Credit Account Company	SHK	Credit Account Number	23701	Debit Account Number	GBP1280000020001	Credit Account Currency	GBP	Credit Amount	20.00	Debit Account Currency	GBP	Credit Account Amount	20.00	Credit Value Date	18 APR 2017	Debit Amount	20.00					Debit Value Date	18 APR 2017					Ordering Account	/11028	Beneficiary Account	/12345			Ordering Name	Coca-Cola	Beneficiary Name	TMR			Ordering Address	1 COCA-COLA PLAZA	Beneficiary Address	PRINCES STREET			Ordering Town/PostalCode - 1	ATLANTA	Beneficiary Town/PostalCode - 1	EDINBURGH					Beneficiary Town/PostalCode - 2	EH2		
Debit Side Information		Credit Side Information																																																																					
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Ordering Name	Coca-Cola	Beneficiary Name	TMR																																																																				
Ordering Address	1 COCA-COLA PLAZA	Beneficiary Address	PRINCES STREET																																																																				
Ordering Town/PostalCode - 1	ATLANTA	Beneficiary Town/PostalCode - 1	EDINBURGH																																																																				
		Beneficiary Town/PostalCode - 2	EH2																																																																				

 TEMENOS

## View processed details for Second 'C'child

Payment Information										Posting Lines			
Company ID : BNK FT Number : BNK17107KGDCMHGK Options : Posting Lines										Results 1 - 1 of 1 Posting Lines Results 1 - 1 of 1 Pstg Line No   Reserv Key   Acc Comp Id   Acc Num   Acc Ccy   Deb Cre Ind   Ocy   Amt   Value Date   Rev Ind 1   BNK   GBP1280000020001   GBP   D   GBP   20   20170418   View Statement 2   BNK   23701   GBP   C   GBP   20   20170418   View Statement			
Successful Payment and reached to status 687.													

Payment Information										Fees Appd for Debit Credit Charges					
Company ID : BNK FT Number : BNK17107KGDCMHGK Options : Fees Applied										Results 1 - 1 of 1 Fee Type   Fee Desc   Type Of Chge   Fee Ccy   Fee Amt   Chg Ccy   Chg Amt   Chg Pty Indc   Tax Pty Indc TRANSACTIONFEE   Transaction Fee   I   GBP   5   GBP   5   D   View					



## View processed details for Second 'C'hild

IFT Number : BNK17107K0GCMH0K	INF	Inbound ClefWord processed successfully	*
	INF	SLA successfully determined	H2MF
	INF	Automated Repair tool not required for this weight and specific weight	
	INF	Payment Successfully initiated	
	INF	Debt Authority successful - Debt Authority Indicator set	S
	INF	Debt Party Successfully Determined	IGBP1280000000001
	INF	Own Account successfully determined	N
	INF	Direction and Transfer type successfully determined	OIC
	INF	Product determination successful	HWA/PPH/PC18113/KZDR-20181102P/ROUTER/DEFAULT/DEFAULT
	INF	Debt Main Account successfully validated	BNK1GBP1280000000001/GBP
	INF	The Funds Authorization process is skipped for the payment	*****
	INF	Client Condition read successfully	LORD/NOSTRO/PREP/BNK/DEFAULT/20180101
	INF	RAD Output Channel is successfully determined	NOSTRO/BNK/DEFAULT/20180101
	INF	If & Q fund is successfully selected	BNK1G2701/GBP
	INF	Credit Account is successfully determined	23701 / BNK / BNK
	INF	Credit Party successfully validated	DEFAULT/20180101/****
	INF	Bank condition read successfully	
	INF	Credit Bank Conditions updated successfully	
	INF	Date Determination Successful	HWA/2B170417/C/VO/20170418/52/20170418/52/20170417/20180101
	INF	Duplicate check performed successfully	
	INF	STP successfully completed	60019
	INF	End of STP processing in Single Row service	
	INF	Status code changed to ready for Risk Filter	
	INF	Risk Filtering successful	
	INF	Record Key - Clientcharges table used for peeling off	1-20181021/****/BNK/****
	INF	Fee Processing is successful	
	INF	The Balance Check with charges process is skipped for the payment	
	INF	Posting-lines and statement lines generated successfully and passed to Ledger	
	INF	Posting completed successfully	
	INF	Outbound ClefWord Processed Successfully	BNK17107K0GCMH0K
	INF	Successful validation of a message that SWIFT OUT is expected to send	fnOutboundDocIdentifierGenerator
	INF	All MT103 message (or its equivalent on the basis of the RTGS / Material agreement) is sent to T24 Delivery Module	The Message type - MT103 is successfully released

 TEMENOS

## Start payment processing for 'C'child-Child Payment Scenarios

Third Child Payment is successful

Report View Screen (ID: 1110796200)

Payment Processing Information		Processing Options	
Status	INIT	Processor	BK
Transaction Reference Number	BBP1771789HUKJSD	Processing Date	17 APR 2017
Sender's Reference Number	BBP1602200001		
Priority	1		
Related Reference	BBP1602200001		
Source	AOL		
Output Channel	NETBRO		
Direction	0		
Transaction Category	GBP		
Transfer Type	C	Transaction Amount	30.00
Incoming Account Type	SA	Charge Option	0%
Balance Reservation	S		
		Receiver Institution	MOLBANK
		Receiver Institution N/C	/SG400015

Debit Credit Info		Error Information		Charge Information		Routing Information		Additional Information		Audit	
Debit Side Information		Credit Side Information									
Debit Account Company	BBK	Credit Account Company	BBK	Credit Account Number	72389						
Debit Account Number	BBP1602200001	Credit Account Currency	GBP	Credit Amount	30.00						
Debit Account Currency	GBP										
Debit Amount	30.00										
Debit Value Date	18 APR 2017										
Ordering Account	711009	Beneficiary Account	87891	Credit Value Date	18 APR 2017						
Ordering Name	COCA COLA	Beneficiary Name	JOHN HENRY								
Ordering Address	7 COCA-COLA PLAZA	Beneficiary Address	WALLSTREET								
Ordering Town/Postal Code	1	Beneficiary Town/Postal Code	NEW YORK								
			2								

 TEMENOS

## View processed details for Third 'C'child

Payment Information		Debit Credit Customer Information						
		Results 1 - 1 of 1						
Company ID :	BNK							
FT Number :	BNK17107BHMKJ00							
Options	Debit Credit Cust Info							

Payment Information		Fees Appd for Debit Credit Charges						
		Results 1 - 1 of 1						
Company ID :	BNK							
FT Number :	BNK17107BHMKJ00							
Options	Fees Applied							

Payment Information		Posting Lines						
		Results 1 - 1 of 1						
Company ID :	BNK							
FT Number :	BNK17107BHMKJ00							
Options	Posting Lines							

 TEMENOS

## Start payment processing for 'C'child-Child Payment Scenarios

Scenario 2- Child payment is captured with reversal reason in statement text also.

Pending and Processed Payments											
Company	FT Number	Ccy	Amt	↓ Acc Comp	Acc Num	↓ Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description
BNK	BNK10005BCJHDFG	GBP	250.00	BNK	10023102001	GBP	05 JAN 2010		9999999999999999	637	Waiting - Fee Processing
BNK	BNK10005HOCJLOC	GBP	100.00	BNK	GBP1400900010001	GBP	05 JAN 2010	9139020225599H	987	Payment Generation Successful	
BNK	BNK10005HMB0FLB	GBP	80.00	BNK	GBP1400900010001	GBP	05 JAN 2010	9139020225600A	993	Payment Reversal Successful	
BNK	BNK10005HD00GP0	GBP	70.00	BNK	GBP1400900010001	GBP	05 JAN 2010	9139020225601H	687	Payment Generation Successful	

Results 1 - 1 of 1											
Payment Information				Posting Lines							
Company ID	BNK	Postg Line No	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Debs Cre Ind	Dcy	Amt	Value Date	Rev Ind
		1	ACLK1000545731	BNK	GBP1400900010001	GBP	D	80	80	20100105	<a href="#">View Statement</a>
		2	ACLK1000545731	BNK	10023102001	GBP	C	80	80	20100105	<a href="#">View Statement</a>

Child Payment is failed and it is reversed and reversal reason is set to 993. Batch Suspense Account is debited and Parent debit Account is credited

Results 1 - 1 of 1											
Payment Information				Statement Line							
Company ID	BNK	Statement Line No	Post Line Num	Statement Line	Line Cont Flag						
		1	1	BANKSTMTCOMDBNKB10005HMB0FLBmber	N Statement Line						
		2		Sender BIC	N Statement Line						
		3		Receiver BIC	N Statement Line						
		1	2	ChildReversal Transaction Number BNK10005HMB0FLB	N Statement Line						
		2		Child Reversal Reason The Credit Party Identifier (National ID) is invalid--/ABNA	N Statement Line						

Child Payment is failed and reversed and Statement line is captured with reversal reason for what reason child payment is failed.

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## Start payment processing for 'C'hild-Child Payment Scenarios

Payment Information		Audit Trail	
Event Type	Event Description	Error Code	Add Info
INF	Message mapped according to parameters		
INF	Weight assigned successfully	HPI	
INF	Inbound Correlation processed successfully		
INF	SLA successfully determined	DEFAULT	
INF	Automated Rekey Tool not required for this weight and specific weight	HPI	
INF	Payment Successfully initiated		
INF	Debit Authority successful - Debit Authority indicator set	S	
INF	Debit Party Successfully Determined	(QSP14000000010001)	
INF	Own Account successfully Determined	N	
INF	Debit and Transfer type successfully determined	OIC	
INF	Product determination successful	HVAISALCHILD-200912221401SAL-CH	
INF	Debit Main Account Successfully Validated	BKGBP1400000010021QSP	
INF	Debit Party Name comparison performed successfully	HOK API timestamp, before call 2010102117022626	
INF	The Funds Authorization process is skipped for the payment		
INF	Client Condition read successfully	SAL-CHLDIAOL*****SAL-CHLDIAOL*****	
ERR	The Credit Party Identifier (National ID) is invalid.	RNS10015	/ABNA
ERR	The Credit Party Identifier (BIC / National ID) could not be determined for the payment	RNS10001	
INF	Client Condition read successfully	SAL-CHLDIAOL*****SAL-CHLDIAOL*****	
ERR	Dates could not be calculated because RNS was unsuccessful(CVD and Processing Date empty/Channel could not be determined).	DAT10001	
INF	Child payment is reversed. STP successfully completed		



## Payment processing for 'C'child

Pending and Processed Payments													
Company	IFT Number	Ccy	Amt	↓	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Gender Ref	Status Code	Description	↓
BNK:	BNK171707GHGOLDGF	GBP	150.00		BNK	11029	GBP	17 APR 2017	9999999999999999	637	Waiting - Fee Processing	66	■
BNK:	BNK171707MDKDHMF	GBP	100.00		BNK	GBP128000000220001	GBP	17 APR 2017	89139020225599	993	Payment Reversal Successful	66	■
BNK:	BNK171707KGCGMHGK	GBP	20.00		BNK	GBP128000000220001	GBP	17 APR 2017	89139020225600	687	Payment Generation Successful	66	■
BNK:	BNK171707BH4LKJBD	GBP	30.00		BNK	GBP128000000220001	GBP	17 APR 2017	89139020225601	687	Payment Generation Successful	66	■

### Payment Completion

1. Payment Reversed (993)
2. Payment Generation Successful (687)
3. Payment Generation Successful (687)



## Resume 'P'arent processing

Resume Parent Processing – Check if all children have calculated fee

Pending and Processed Payments												Results 1-4 of 4	
Company	FT Number	Ccy	Amnt	⌚	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	⌚
BNK	BNK17107GHGOLDGF	GBP	150.00	⌚	BNK	11029	GBP	17 APR 2017	9999999999999999	638	Waiting -Fee Processing	⌚	
BNK	BNK17107FMDXKHMLF	GBP	100.00	⌚	BNK	GBP12800000020001	GBP	17 APR 2017	89139020225599	993	Payment Reversal Successful	⌚	
BNK	BNK17107KGCMHKG	GBP	20.00	⌚	BNK	GBP12800000020001	GBP	17 APR 2017	89139020225600	687	Payment Generation Successful	⌚	
BNK	BNK17107BHMKJJD0	GBP	30.00	⌚	BNK	GBP12800000020001	GBP	17 APR 2017	89139020225601	687	Payment Generation Successful	⌚	



FeeDeterminationService started and parent resumed.

## View status of parent

Pending and Processed Payments

Company	FT Number	Ccy	Amt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	
BNK	BNK17107GHG0LDGF	GBP	150.00	BNK	11029	GBP	17 APR 2017		9999999999999999	999	Payment complete	<a href="#">View</a>
BNK	BNK17107FDK0MLF	GBP	100.00	BNK	GBP12800000020001	GBP	17 APR 2017	89139020225599	89139020225599	993	Payment Reversal Successful	<a href="#">View</a>
BNK	BNK17107DCCMHGK	GBP	20.00	BNK	GBP12800000020001	GBP	17 APR 2017	89139020225600	89139020225600	687	Payment Generation Successful	<a href="#">View</a>
BNK	BNK17107BHMKJDD	GBP	30.00	BNK	GBP12800000020001	GBP	17 APR 2017	89139020225601	89139020225601	687	Payment Generation Successful	<a href="#">View</a>

Results 1 - 4 of 4

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Payment Information

Results 1 - 1 of 1		Posting Lines									
Company ID:	BNK	Postg Line No.	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Deb Crd Ind	Ccy	Amt	Value Date	Rev Ind
FT Number:	BNK17107GHG0LDGF	1	ACLK1710744809	BNK	11029	GBP	D	GBP	150	20170419	<a href="#">View Statement</a>
		2	ACLK1710744809	BNK	GBP12800000020001	GBP	C	GBP	150	20170419	<a href="#">View Statement</a>

Options: [Posting Lines](#)

Results 1 - 1 of 1

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Payment Information

Results 1 - 1 of 1		Debit Credit Customer Information						
Company ID:	BNK	FTNumber	MainOrChrgAcctType	AccCompID	AccNum	AccCcy	AccType	
FT Number:	BNK17107GHG0LDGF	BNK17107GHG0LDGF	D	BNK	11029	GBP	C	<a href="#">View</a>
		C	BNK	GBP12800000020001	GBP	I		

Options: [Debit Credit Cust Info](#)

Results 1 - 1 of 1

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Payment Information

Results 1 - 1 of 1		Fees Appd for Debit Credit Charges						
Fee Type	Fee Desc	Type Of Chge	Fee Ccy	Fee Amt	Chg Ccy	Chg Amt	Chg Pty Indc	Tax Pty Indc
TRANSACTIONFEE	Transaction Fee	I	GBP	20	GBP	20	D	<a href="#">View</a>

FT Number: BNK17107GHG0LDGF

Options: [Fees Applied](#)

Results 1 - 1 of 1

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Parent complete

## Batch Processing – Parent held due to insufficient funds

- Payment is Accepted
- Payment is parked due to insufficient funds-Whole Batch Parked
- It goes to Status 49 (Waiting-Balance check DDA Approval)

Approve release of funds for parent transaction

Unauthorised Manual Requests								Results 1 - 1 of 1			
Account Number:	77097	Currency :	EUR								
Customer ID	100160	Customer Name:	Yhs								
Available amount:	10,000.00	Working balance	10,000.00								
Reservation Key	Payment Currency	Payment Amount	Reserved Amount	Excess amount	Value date	Created Date and Time	Decision	Decision Reason	<input type="button" value="[- please select -]"/>		
BNK18107H000LMHM	USD	15,000.00	13,971.79	-3,971.79	17 APR 18	17 APR 18 101224446					



## Approve release of funds for parent transaction

Manual Requests Decision - ACFIA1810700815

Account Number	77097	Currency	EUR
Payment Currency	USD	Payment Amount	10000.00
Value Date	3.JAN.17 A	Inst. Reg. Date	2.JAN.06 J
Inst. Reg. Time	15:58:14	Created Date	17 APR 2018
Created Time	101224448	Transaction reference	BANK181071000LMRIM
Decision	Approved	Decision Reasons 1 -	Funds expected to receive Oversight
Funds Auth Status	UNAUTHORISED	Reservation Key	ACFA1810700815
Request Source	PP	Reservation ID	ACLK18107033780
Request Code	01	Approval Code	<input type="radio"/> Manually authorised <input checked="" type="radio"/> RECYCLER
Request Desc	No Funds		

Audit

Override 1	Account 77097 unauthorised overdraft of 3971.79 available 10000 Requested 13971.79 EUR
Override 2	Ac 77097 Today's Balance EUR 10000 will fall below Locked 13971.79 from 17 APR 2018
Record Status	INAU
Current No	1
Inputter 1	99854_BPUTTER_OFIS_BSPFA
Date / Time 1	04.JUL.18 16:00
Authoriser	
Company	G80010001 Model bank

Account 77097 unauthorised overdraft of 3971.79 available 10000 Requested 13971.79 EUR  
Ac 77097 Today's Balance EUR 10000 will fall below Locked 13971.79 from 17 APR 2018

ID<- RECORD WAS READ FROM HOLD FILE

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Approve the request for funds and show overrides raised by the DDA

## Authorise request for funds

**Unauthorised Manual Requests**

Results 1 - 1 of 1

Reservation Key	Payment Currency	Payment Amount	Reservation Amount	Excess amount	Value date	Created Date and Time	Decision	Decision Reason
BNK18107HDOLMHM	USD	15,000.00	13,971.79	-3,971.79		17 APR 18 10122446	APPROVED	Funds expected to receive Overnight <input checked="" type="checkbox"/>

Manual Requests Authorise ACF1810700815

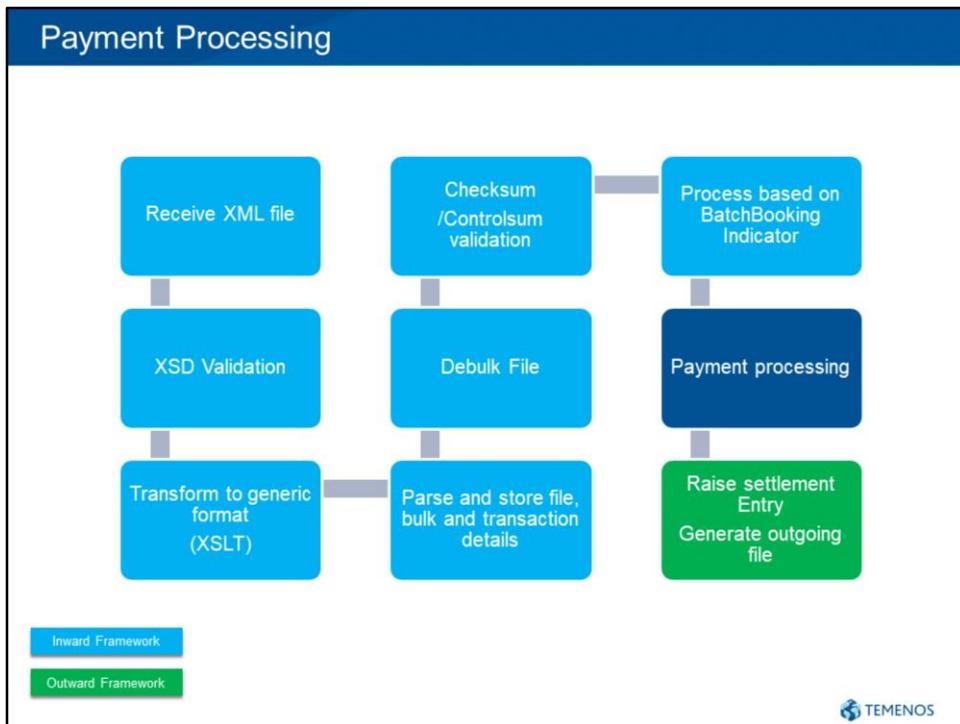
**Customer**

Account Number	77097	Currency	EUR
Payment Currency	USD	Payment Amount	15,000.00
Value Date	2 JAN 17 J	Init Req Date	2 JAN 04 J
Created Date	17 APR 2018	Created Time	10:58:14
Transaction reference	BNK18107HDOLMHM	Init Req Time	10122446
Decision	Approved	Decision Reason 1	Funds expected to receive Overnight
Funds Auth Status	AUTHORISED	Reservation Key	ACF1810700815
Request Source	PP	Reservation ID	ACF1810703780
Request Code	01		
Request Desc	No Funds		

- Payment gets released to move to the next stage
- Child transactions are released and processed

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## Authorise the request for funds



XSD Validation - ISO published XSDs

pain.001,pain.008,pain.007,pacs.003,pacs.008,pacs.004,pacs.007,pacs.002,camt.056, camt.029

XSLT Transformation – Transform to generic schema. Queue name is hardcoded at this juncture. One queue per message

Check sum validation - Done only for pain.001 and pain.008 messages. This is skipped for INST payments as they are single message. Skipping is done based on queue name.

Debulk file – Debulk into single transactions. Each transaction will contain the file and bulk header along with transaction information. Bulk number and transaction number are assigned at this juncture.

Once debulked, messages are posted into a JMS queue from where it is consumed by the OFS layer.

## Understanding the key words

37

Credit Transfer	Direct Debit	Cheque	Settlement Type	Clearing Type
File /Transaction Based	Clearing Transaction Type	Clearing Nature Code	Debit Authority	Mandates
Reachability	Channel Validations	Cancellation	Queries and Answers	Investigation



Settlement Type – Type of settlement with the clearing house. All credit transfers are always pre-settled.

A Settlement transaction is created only if the SettlementBookingIndicator is configured in the Clearing Setting table for the respective clearing, message type (bulk format) and clearing transaction type.

If SettlementBookingIndicator = Y or L then a clearing settlement transaction is created (for value L a pending settlement transaction is created, which will be executed on the settlement date).

The settlement transaction is created based on the information provided as part of the file and bulk level information of the TPH generic format, such as the total bulk amount, bulk currency and the BulkSchemaIndicator indicator.

PP.CLEARING

- Define the clearing

PP.CLEARING  
SETTING

- Define the attributes of the clearing

PP.CLEARING  
NATURECODE

- Define the variations in clearing messages

## PP.CLEARING

Admin Menu > Payment Hub > Local Clearing GUI > Clearing

The screenshot shows the 'PP.CLEARING' configuration interface under 'STEP2'. It includes fields for CompanyID (BNK), ClearingCurrency (EUR), ClearingCountryCode (EU), ClearingName (SEPA Clearing from STEP2), ClearingFileTransactionInd (F selected), RTGSSystem (N selected), SendingBIC (DEMOGBP), RMACheck (N selected), MaxTransPerBulk (5), MaxBulksPerFile (2), MaxFilesPerCycle (2), BulkingCriteriaAPI (Y selected), FileGenerationRequired (N selected), OutMessageFormatAPI (EBAPFRPP), ClearingRIC (Allow U T FB Characters, BulkFileRefAPI, PhysicalFileNameAPI, MandateValidationAPI, File Transfer Indicator T selected, OutboundMsgGeneration API N selected), and Skip Reachability (N selected). The TEMENOS logo is visible at the bottom right.

This is the master table that lists all the clearings (incoming and outgoing) that will be used in the payment system. Every clearing must have a record in this table. Even clearings that are settled through SWIFT channel must be configured in this table (e.g. CHATS, TARGET2 etc.)

- Company ID - The company to which the configuration belongs to
- Clearing Currency - The currency in which the payments can be cleared. This can be multiple as well (In Hong Kong, 4 currencies are supported as part of the local clearing)
- Clearing Country Code - The country of the clearing
- Clearing Name - Name of the clearing – This is just free text description
- File Transaction Indicator - Whether the clearing is a file based/bulk (F) clearing or a Transaction/single (T) type of clearing
- RTGS Indicator - Whether the clearing is a RTGS based clearing (Y – RTGS based clearing, N or Blank if it is not a RTGS based clearing)
- RMA Check - Whether RMA check is required for messages. This could be required for SWIFT format based clearings like TARGET2
- Bulking Criteria API - API to be used to bulk payments when settling with the clearing house. Used only for file based clearings. These APIs are only released by Product and cannot be user defined.
- File Generation Required - Whether an outgoing file to clearing is to be generated by TPH or outside (example Country layer). If outgoing file generation is handled in the country layer this would be set to 'N'

- Max Tx/Bulk - Maximum number of transactions that can be placed in a bulk.  
Applicable only or file based clearings
- Max Bulks/File - Maximum number of bulks that can be placed in a file. Applicable only or file based clearings
- Max Files/Cycle - Maximum number of file that can be generated per clearing cycle. Applicable only or file based clearings
- Physical File Name API – API to be used to determine the name of the file to be generated. If no API is defined, the file reference generated would become the file name.
- Mandate Validation API - API to be invoked to perform Direct Debit mandate validations for the Clearing.

## PP.CLEARING.SETTING

Admin Menu > Payment Hub > Local Clearing GUI > Clearing Setting

This table stores the configuration details about the clearings that will be used in various steps of the processing flow which will influence the way the clearing payment must be processed (accounts to be used, time of settlement creation, possible messages types, manual verification, Settlement Cycle (shift) etc.)

Holds various information about the clearing such as -

- Company - Company to which the configuration belongs to
- Clearing ID - Clearing to which the configuration belongs to
- Currency - Currency of the clearing
- Clearing Nature Code - If you wish to have specific behaviour based on clearing nature code, specify the clearing nature code. Else, can be set to \*
- Clearing Transaction Type - If you wish to have specific behaviour based on clearing transaction type, specify the clearing transaction type (CT, DD, RF etc). Else, can be set to \*
- Message Direction indicates

S – Send messages to clearing

R – Receive messages from clearing

If you wish to configure different suspense accounts for incoming and outgoing payments, this can be used.

- Message Payment Type - If you wish to have specific behaviour based on message type - like different suspense accounts for incoming and outgoing payments, this can be used.
- Clearing Account Company, Clearing Account Number, Clearing Account Currency –

Define the NOSTRO account with the clearing

- Suspense Account Company, Suspense Account Number, Suspense Account Currency – Define the suspense that needs to be used while booking. This is used for file based clearings. For instance when a credit bulk is processed,
- When the parent transaction is processed, the ordering party is debited and the suspense account defined in PP.BATCHSUSPENSE is credited.
- When a child transaction is processed, the suspense account defined in PP.BATCHSUSPENSE is debited and this suspense account is credited.
- Settlement Booking Indicator – To be set to ‘Y’, when net settlement is required. To be set to Y for file based clearings. This will ensure that all child transactions (which are outgoing) to be parked in status 706. At a scheduled time, based on the clearing cut off, a time scheduled process will perform the settlement with the clearing house and move these payments to their end status.
- Manual Verification Required – To be set to ‘Y’ only for incoming direct debit payments where mandate verification is manual. Currently used by incoming direct debits from BACS.
- Validation required – If set to ‘Y’, validations would be performed on the payment. Validations are controlled by product and an API is attached to perform the same. Related API should be configured. Validate API – API for validations to be performed on the clearing payment.
- Automated return – When an incoming debit, credit or return comes to TPH, if it contains incorrect information to process the payment, then, if this field is set to ‘Y’, the incoming payment will get automatically returned. Meaning, original incoming payment will move to status “Completed with Return”(996) and a new return payment will be created in status 4. This new payment will get processed and will get parked in status 706 for settlement.
- Create return booking – Indicator that defines if the payment needs to be booked to a return suspense account. In a post settlement clearing like SEPA, for direct debits, when a direct debit is returned, a return message needs to be sent but booking should not happen. Set this to ‘N’, when you do not want a return booking to happen on a return message at the time of processing the outgoing return message.
- Create return message - Specifies if a return message can be generated for a clearing. If a clearing does not support return messages, set this to ‘N’
- Return Account Company, Return Account Number, Return Account Currency - Define the suspense accounts to be used while booking return messages.
- Create reject message indicator - Create a reject message. Applicable for post settlement clearings and clearings that support reject.

SEPA SCT : N

SEPA SDD : Y

- Acceptance days - Number of days before which the payment must be returned if it supports return

## PP.CLEARING.SETTING - Contd

41

ReturnSuspenseAccountCurrency	<input type="radio"/> Y <input type="radio"/> N
Create Reject Message Indicator	<input type="radio"/> Y <input type="radio"/> N
AcceptanceDays	<input type="radio"/> Y <input type="radio"/> N
Clearing Transaction Type	<input type="radio"/> Y <input type="radio"/> N
AuthRefundAllowedDays	<input type="radio"/> Y <input type="radio"/> N
UnAuthRefundAllowedDays	<input type="radio"/> Y <input type="radio"/> N
ImposeReturnValueDate	<input type="radio"/> Y <input type="radio"/> N
MandateVerificationIndicator	<input type="radio"/> Y <input type="radio"/> N
AutoRegisterMandateIndicator	<input type="radio"/> Y <input type="radio"/> N
MandateAmendmentIndicator	<input type="radio"/> Y <input type="radio"/> N
MandateJmftCheckIndicator	<input type="radio"/> Y <input type="radio"/> N
Crd Restriction Check Indicator	<input type="radio"/> Y <input type="radio"/> N
Max Inst Time Out	<input type="radio"/> Y <input type="radio"/> N
Negative Cancel Response	<input type="radio"/> Y <input type="radio"/> N
Original Transaction Returns	<input type="radio"/> Y <input type="radio"/> N
Suspense Account Number Contra	<input type="radio"/> Y <input type="radio"/> N
Suspense Acc Number Contra Ccy	<input type="radio"/> Y <input type="radio"/> N
Suspense Acc Number Contra Cmpy	<input type="radio"/> Y <input type="radio"/> N
Cheques Auto Clear	<input type="radio"/> Y <input type="radio"/> N
Reserved10	<input type="radio"/> Y <input type="radio"/> N
Reserved9	<input type="radio"/> Y <input type="radio"/> N
Reserved8	<input type="radio"/> Y <input type="radio"/> N
Reserved7	<input type="radio"/> Y <input type="radio"/> N
Reserved6	<input type="radio"/> Y <input type="radio"/> N
Reserved5	<input type="radio"/> Y <input type="radio"/> N
Reserved4	<input type="radio"/> Y <input type="radio"/> N
Reserved3	<input type="radio"/> Y <input type="radio"/> N
Reserved2	<input type="radio"/> Y <input type="radio"/> N
Reserved1	<input type="radio"/> Y <input type="radio"/> N

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## PP.CLEARING.NATURECODE

Admin Menu > Payment Hub > Local Clearing GUI > Clearing Nature Code

PP.CLEARING.NATURE.CODE STEP2.SCT

CompanyID	BNK
Clearing Nature Code Desc	EN SEPA Credit Transfer

Company ID	It is the company code for which the clearing nature record is created.
Clearing NatureCodeDescription	This field defines the code identifying the nature of clearing payment (sub producttype). It is updated in the payment order during mapping.
Cheque Type	This field indicates the cheque type that is known in T24, relating to the given clearing nature code. It is used for cheque debits products during validation of the cheque status.



The clearing nature code table holds the various payment products types that are possible through a file based clearing .Clearing nature codes is an input to light weight product determination. Based on the product, different client charges, client agreements can be set up for the clearing product.

Example: Based on client requirement, cheque return payment in cheque credit file may be required to be processed Non- STP (manual intervention) whereas cheque credits in the file need to be processed STP.

For a file based clearing, clearing nature code is set in the payment order during mapping process. Clearing payments from same clearing having same message payment type can be differentiated based on clearing nature code (sub product type) thereby influencing payment processing.

Example: For Direct Debit payments from BACS clearing, clearing nature code indicates if it is Direct Debit First Collection, Direct Debit Last Collection, Cheque Debit, Cheque Credit, Returned cheque etc.

## PP.CLEARING DIRECTORY

Admin Menu > Payment Hub >Clearing Directory GUI >  
Clearing Directory

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This table is used to setup a participant to a clearing in the generic clearing directory.

**Bic Code:** This is the unique BIC related to the institution from the BIC Directory.

**Receiver:** BIC to be used in the header of the SWIFT message.

**Account Holder :** BIC identifying the settlement bank.

**InstitutionName :** Participant's company name.

**CityHeading:** Participant's establishment.

**Participation Type:** This field specifies the type of participation by the participants.

DP – Direct Participant IP – Indirect Participant

**NationalClearingCode :** The National identifier of the institution/branch.

**CT Reachability:** Defines the reachability for Credit Transfers

**DD Reachability:** Defines the reachability for Direct Debit Transfers

**FastDD Reachability:** Defines the reachability for CORE Direct Debit Transfers

**B2B Reachability:** Defines the reachability for B2B Direct Debit Transfers

**Override through Upload:** This field indicates if this directory can be uploaded or not

## PP.SOURCE.SETTING

PP.SOURCE.SETTING STEP2	
TransactionType	MessagePaymentType
CT	pacs.008IS
RT	pacs.008
RJ	pacs.002CT
RV	pacs.007
RF	pacs.003
<b>Transaction Type</b>	Indicates the Transaction Type for which the record is created. Example : CT,DD
<b>Message payment type</b>	Indicates the message type of the Payment.
<b>AutomatedCancelIndicator</b>	Indicates Whether the payment has to be automatically cancelled by STP flow or not
<b>Createcustomerstatusmsg</b>	Create Customer Status Message for which the record is created – Indicates whether Customer Status Report to be generated for the payment
<b>Batchfeeholdindicator</b>	This field is to decide if the parent is to be held at fee or if children should be released after payment finalization is specified. Set to 'Y' to hold parent at fee.
<b>Maxalloweddays</b>	The number of the maximum allowed days to process the payment

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Automated Cancel Indicator : AutomatedCancelIndicator to "Y", to cancel the payment automatically, when the payment cannot be processed due to errors, such as missing account, invalid debit authorisation, etc. If STP cancellation is not configured, system will move the payment to Repair queue for manual exception handling.

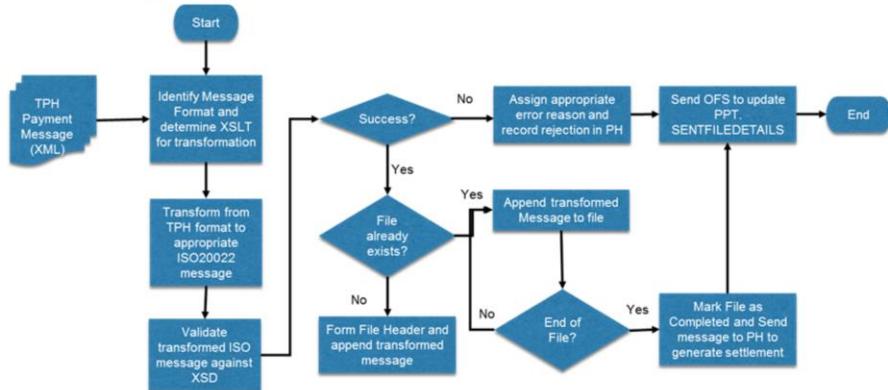
Maximum Hold Days: How many days in advance (for a DDI), can a collection be sent out.

When payment is received from client, if it is not within max allowed days, if more than the max allowed days, warehouse.

When calculating send date, check this field. Based on this arrive at send date. (DVD - Max allowed days send date)

## Outward Framework

Outward Clearing Framework is responsible for generating payment messages/files to be sent to the Clearing and settlement entries for successfully processed files.



It supports the following Functionalities:

Flexible Bulking/Batching of Payments

Generation of Payment files at Clearing Cut-off

Settlement Entry generation

## Outward Clearing Framework - Bulking Criteria API

- Define in PP.CLEARING
- Takes as input
  - ClearingTransactionType
  - BankOperationCode
  - OutgoingMessageType
  - ClearingCurrency
- Output (Values that form the bulking criteria. To be set to 'Y' if the field is a deciding factor to form a bulk)
  - ClearingCurrency
  - ClearingNatureCode
  - OutgoingMessageType
  - ClearingTransactionType
  - CreditValueDate
  - DebitValueDate
  - BulkSendersReference



## Outward Clearing Framework - Bulking Criteria API

### ● Other values to be returned

- File Format
  - Example for SEPA RPSSCL :
  - Valid file formats for RPSSCL : ICF, IDFC, IDFB
  - File format is decided based on ClearingTransactionType and BankOperationCode
  - When PP.CLEARING.FileGenerationRequires is 'N', FileFormat would be set to NOFILE by the system

Clearing Transaction Type	Bank Operation Code	File Format
CT or RT or RV	Not Applicable (NA)	ICF
DD or RD or RJ or RF or RV or CR-DD	CORE	IDFC
DD or RD or RJ or RF or RV or CR-DD	B2B	IDFB

### ▪ Payment TypeIndicator

- Specifies if the payment is a credit transfer or a direct debit

Clearing Transaction Type	Bank Operation Code
CT or RT or RV	C
DD or RF or RD	D

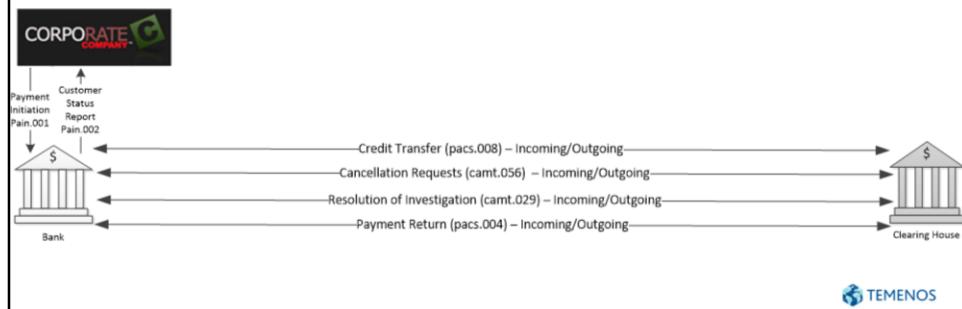
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## Outward Clearing Framework - Bulking Criteria API

- Exception Handling
- Causes
  - Bulking Criteria API not defined
  - Bulking Criteria API defined but API does not exist
- Result
  - System will log an 'INF'ormational error in POR.HISTORYLOG
  - System will exit processing



- Accept Customer to Bank (C2B) Payment Orders
- Clear Customer to Bank (C2B) Payment Orders [Inter-bank leg]
- Settle Customer to Bank (C2B) Payment Orders
- Exceptions and Investigations relating to C2B Payment Orders
- Provide Customer Status Reports on C2B Payment Orders



Payments system can receive/accept/interpret and map a Pain.001 XML message or other CTIs received from customer or indirect participant. Furthermore, the payment system can differentiate a batch from a bulk.

Payments flow through a separate STP return process based on the fields set in clearing setting for the clearing. Also based on client conditions, trigger can be initiated for generating customer status report for the outgoing CTI.

## Clearing Transaction Types – Credit Transfer

50

Business Event	Transaction Type	ISO Message	Version
Credit Transfer Initiation	CI	pain.001	05
Credit Transfer	CT	pacs.008	02
Credit Transfer Return	RT	pacs.004	02
Credit Transfer Cancellation Request	CR	camt.056	01
Resolution of Investigation	RI	camt.029	03
Clearing Status Report		pacs.002	03S2
Rejections	RJ		
Customer Status Report		pain.002	05



Credit Transfer Initiation - CT - Receive and Execute Customer to Bank credit transfer payment orders.

Payment Order will be executed if there is sufficient funds in the debtor account and the payment is within the cut-off time and can be routed through a Correspondent or Clearing. If payment is after the cut-off time, then the payment can be warehoused, routed through the next available channel or moved to Repair for operator action. Payments that are finalised successfully, will be forwarded to the Clearing in pacs.008 format or any other supported native clearing format.

Settlement entries will be raised when credit transfers are forwarded to the Clearing.

Credit Transfer – CT - Process Bank to Bank payment orders to credit a beneficiary in the books of the processing bank.

Credit Transfer Return – RT - Payment Return is an instruction to return a credit transfer payment order which was previously settled.

Payment Hub can support both inbound and outbound payment returns. Inbound Payment returns will identify the original Credit Transfer transaction and credit the debtor/originator of the payment.

Outbound payment returns are processed and sent to the Clearing, when an incoming Credit transfer cannot be processed (example when Beneficiary cannot be determined) successfully.

Credit Transfer Cancellation Request – CR - Payment Cancellation request is a recall of a payment requesting cancellation of the original payment instruction. It is a non-value investigation message and can result in a Payment Return, if accepted or Resolution of Investigation (ROI), if rejected.

Payment Hub can support initiation of outbound Payment cancellation requests for Credit Transfer Payment orders executed and send to the Clearing.

It can also support receipt of Payment Cancellation requests for Credit Transfer Payment Orders received and processed previously. Based on the business rules configured, the cancellation request can be resolved with a “Credit Transfer Return Payment” or rejected with a “Resolution of Investigation”

Resolution of Investigation – RI - Payment Hub supports Resolution of Investigation which results in a “Rejection” (Negative confirmation) of the “Credit Transfer Cancellation Request”. It is sent by the assignee (bank receiving the cancellation request) to the assignor (bank sending the cancellation request).

Payment hub can support sending of the negative confirmation for a payment cancellation request received. It can also support receipt of an ROI with a “REJECTED” status and update the “Payment Cancellation Request” as resolved with a rejection.

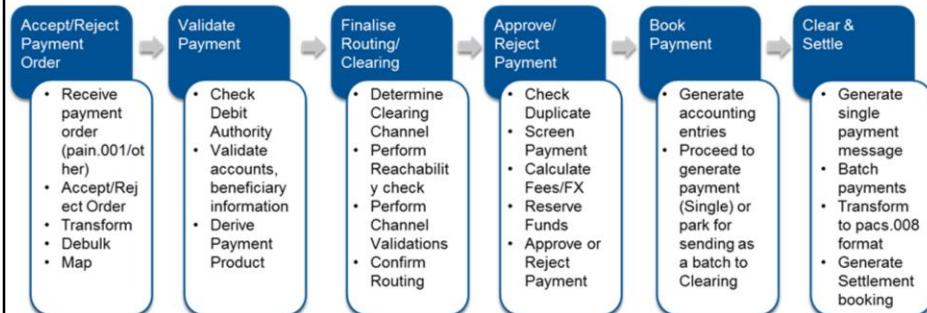
Clearing Status Report - Receive Clearing Status Report message sent by the Clearing/Instructed agent, update the status of payment and trigger appropriate business workflow to handle positive and negative confirmations. Positive confirmations will update the payment status as completed and negative confirmations will trigger exception handling and route the payments to a queue for operator action or automatically reverse the entries.

Rejection – RJ - Negative confirmations received from a Clearing will result in a Rejection of a Credit Transfer that was sent previously. System will provide ability to the debtor bank to mark the original Credit Transfer payments as returned and generate new payment orders which will reverse the earlier postings. Such reversal payments can be generated automatically through configuration or manually by an operator.

Customer Status Report - Customer Payment Status Reports are used to inform the initiating party of a payment instruction (either single or file) about the positive or negative status of an instruction. It can also be used to report status of pending payment instructions.

## Credit Transfer Initiation

51



Customer Credit Transfer initiation is a message sent by the initiating party (acting on behalf of the debtor) or debtor (ordering customer) to the debtor agent (bank) to request movement of funds from the debtor account to a creditor (beneficiary).

### **Accept/Reject Payment Order**

Payment Orders can be received from the following sources –

Temenos Front Office/Channels - through PAYMENT.ORDER application

Temenos Applications (Standing Order, AA Deposits, Loans, etc) – through PAYMENT.ORDER application

External Channels – through ISO pain.001 message format or TPH generic (internal) format for the event/transaction type

Payment received in pain.001 format or TPH internal format is transformed, debulked, validated and mapped to the TPH Payment order for processing.

Inward Framework of TPH is responsible for handling the acceptance and mapping of files and payment messages.

### **Validate Payment**

In this stage of the workflow, following validations will be carried out –

Check if there is sufficient authorisation to debit the Ordering Customer [DebitAuthority]

Debit account is valid – account is not missing, closed or inactive

Check if the payment is “On-Us” and accordingly mark the direction of the payment as Book or Outgoing

Determine (Invoke Product Determination – Heavy, Medium or Light) and arrive at

the payment products which will be used to determine Routing Channel, calculate fees and book the payment. Medium Weight Product table is additionally introduced as part of the Clearing Framework to support clearing business events.

### ***Finalise Routing/Clearing***

In this stage, the following is handled –

Routing channel is selected based on Routing Product and the Contracts setup in TPH Routing tables

Reachability check for the Clearing Channel is invoked.

Once it is confirmed that the beneficiary bank is reachable directly or through an intermediary (Direct participant bank), channel validations are invoked.

Channel validations are configurable per Clearing.

Once channel validations are successful, the payment route/channel is finalised.

Dates are calculated

If payment route cannot be finalised, the system tries the next available routing options (driven by configuration) and if none of the options are successful, then the system raises an exception, which will be handled when the payment is evaluated for approval.

### ***Approve or Reject the payment***

Finalisation of the payment is done at this stage. Payment is checked for duplicates, screened against sanctions list, fees and FX is calculated and funds are reserved on the account. If the payment had failed in any of the validations earlier in the workflow or while performing the checks described here, a few actions are possible – Force payment to Manual Repair queue for an operator to repair the payment or cancel manually

Automatically cancel the payment

### ***Book Payment***

When the payment is successfully finalised, accounting entries are generated, as per the posting rules applicable for the payment. Posting/Booking rules are configurable in the system

### ***Clear and Settle***

For outgoing payments, clearing and settlement is performed at this stage.

Outgoing payment message is generated for single (RTGS) payments if “Send Date” of the payment matches the processing date.

For ACH payments, which need to be batched and sent, payments will be parked in “Waiting Clearing” (706) status, until the Cut-off time for forwarding the file to the Clearing, is reached.

Outward Clearing Framework is responsible for handling outgoing payments to the Clearing. It is used to manage the sending of outward payment files to the clearing and generation of the settlement entries.

## Credit Transfer Initiation - Booking

52

### Single Payments – Sent immediately to Clearing (example RTGS payment)

Debit Customer/Debtor Account - For Principal	Credit Clearing Nostro Account - For Principal
Debit Customer/Debtor Account - For Charges	Credit PL - For Charges Credit Tax Account - For Taxes

### Single Payments – Sent in a Clearing Batch (ACH Payments)

Debit Customer/Debtor Account - For Principal	Credit Clearing Suspense Account -For Principal
Debit Customer/Debtor Account - For Charges	Credit PL - For Charges
Debit Customer/Debtor Account - For Tax (example VAT)	Credit Tax Account - For Taxes

### Batch Payment – Parent Transaction – Book

Debit Customer/Debtor Account - For Principal	Credit Batch Suspense Account - For Principal
Debit Customer/Debtor Account - For Charges [Can be netted into a Single Debit entry]	Credit PL - For Charges
Debit Customer/Debtor Account - For Tax (example VAT)	Credit Tax Account - For Taxes

**Batch Payment – Child Transaction - Sent immediately to Clearing (example RTGS payment)**

Debit Batch Suspense Account - For Principal	Credit Clearing Nostro Account - For Principal
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**Batch Payment – Child Transaction - Sent in a Clearing Batch (ACH Payments)**

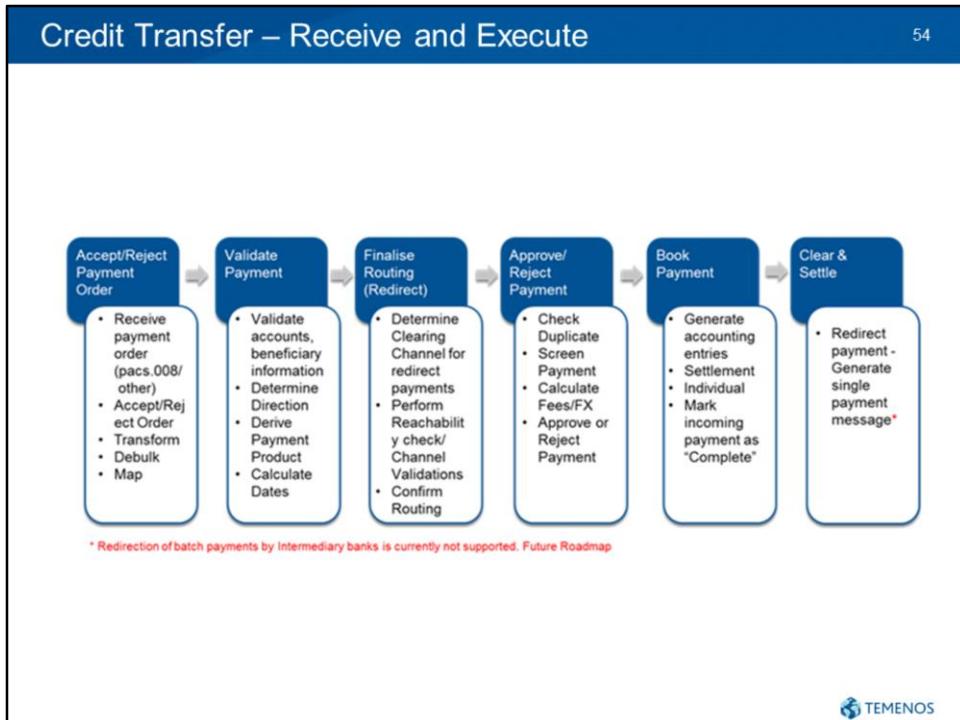
Debit Batch Suspense Account - For Principal	Credit Clearing Suspense Account- For Principal
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**Settlement Entry with Clearing House (In case of ACH Payments)**

Debit Clearing Suspense Account - For Bulk Total	Credit Clearing Nostro Account- For Bulk Total
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Suspense and Nostro accounts to be used can be configured –  
PP.CLEARINGSETTING





When a bank receives a Customer Credit Transfer from the clearing, it is either the creditor agent or acting as an intermediary bank for the creditor agent. When it is the creditor agent, the payment is an incoming payment and funds are credited to the Beneficiary/Creditor. When it is an intermediary, then it is a redirect payment and it is forwarded to the creditor agent bank. Redirection is currently supported only for 'Instant' payments.

### Credit Transfers

Credit Transfers can be received from RTGS and ACH clearings.

Payment received in pacs.008 format or TPH internal format is transformed, debulked, validated and mapped to the TPH Credit Transfer business event/transaction for processing.

Inward Framework of TPH is responsible for handling the acceptance and mapping of files and payment messages.

Settlement transaction is also mapped during this stage for Bulks received from the Clearing. For incoming payments from the Clearing, system decides if settlement booking is required or not, based on the configuration in "PP.CLEARING.SETTING" field "SettlementBookingIndicator". When this field holds the value "Y", then settlement entry is raised for ACH/SEPA batch payments received from the Clearing.

### Validate Payment

In this stage of the workflow, following validations will be carried out –

Check if the payment is "On-Us" and accordingly mark the direction of the payment as Incoming, otherwise Redirect\*

Check if Debit/Credit accounts are valid – account is not missing, closed or inactive  
Determine (Invoke Product Determination – Heavy, Medium or Light) and arrive at the payment products which will be used to determine Routing Channel, calculate fees and book the payment. Incoming Clearing payments are assigned “Light Weight” (configurable in PP.SPECIFIC.WEIGHT)

Calculate Dates (Debit, Credit Value Date) for incoming payments

\*Redirection of batch payments by Intermediary banks is currently not supported.

Future Roadmap

#### ***Finalise Routing (Redirect)***

In this stage, the following is handled for Redirected single payments–

Routing channel is selected based on Routing Product and the Contracts setup in TPH Routing tables

Reachability check for the Clearing Channel is invoked.

Once it is confirmed that the beneficiary bank is reachable directly or through an intermediary (Direct participant bank), channel validations are invoked.

Channel validations are configurable per Clearing.

Once channel validations are successful, the payment route/channel is finalised.

Dates are calculated for redirect payments.

If payment route cannot be finalised, the system tries the next available routing options (driven by configuration) and if none of the options are successful, then the system raises an exception, which will be handled when the payment is evaluated for approval.

#### ***Approve/Reject Payment***

Finalisation of the payment is done at this stage. Payment is checked for duplicates, screened against sanctions list, fees and FX is calculated. If the payment had failed in any of the validations earlier in the workflow or while performing the checks described here, a few actions are possible –

Force payment to Manual Repair queue for an operator to repair the payment or return payment manually

Automatically return the payment

#### ***Book Payment***

When the payment is successfully finalised, accounting entries are generated, as per the posting rules applicable for the payment. Posting/Booking rules are configurable in the system.

#### ***Clear and Settle***

For redirect payments, clearing and settlement is performed at this stage.

Outgoing payment message is generated for single (RTGS) payments if “Send Date” of the payment matches the processing date.

For ACH payments, which need to be batched and sent, payments will be parked in “Waiting Clearing” (706) status, until the Cut-off time for forwarding the file to the

Clearing, is reached.

Outward Clearing Framework is responsible for handling outgoing payments to the Clearing. It is used to manage the sending of outward payment files to the clearing and generation of the settlement entries.

Clearing Accounts for settlement entries can be configured in PP.CLEARING.SETTING.

**Settlement Entry (For Batch/Bulk payments)**

Debit Clearing Nostro Account	Credit Clearing Suspense Account
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**Individual Transactions (which belong to batch/bulk) – Incoming**

Debit Clearing Suspense Account	Credit Beneficiary
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**Individual Transactions (which belong to batch/bulk) – Redirect**

Debit Clearing Suspense Account	Credit Vostro Account of correspondent bank (Net of charges) Credit PL (if charges are applied)
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**Individual Transactions – Single – Incoming**

Debit Clearing Nostro Account	Credit Beneficiary Credit PL (For charges if any)
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**Individual Transactions – Single – Redirect**

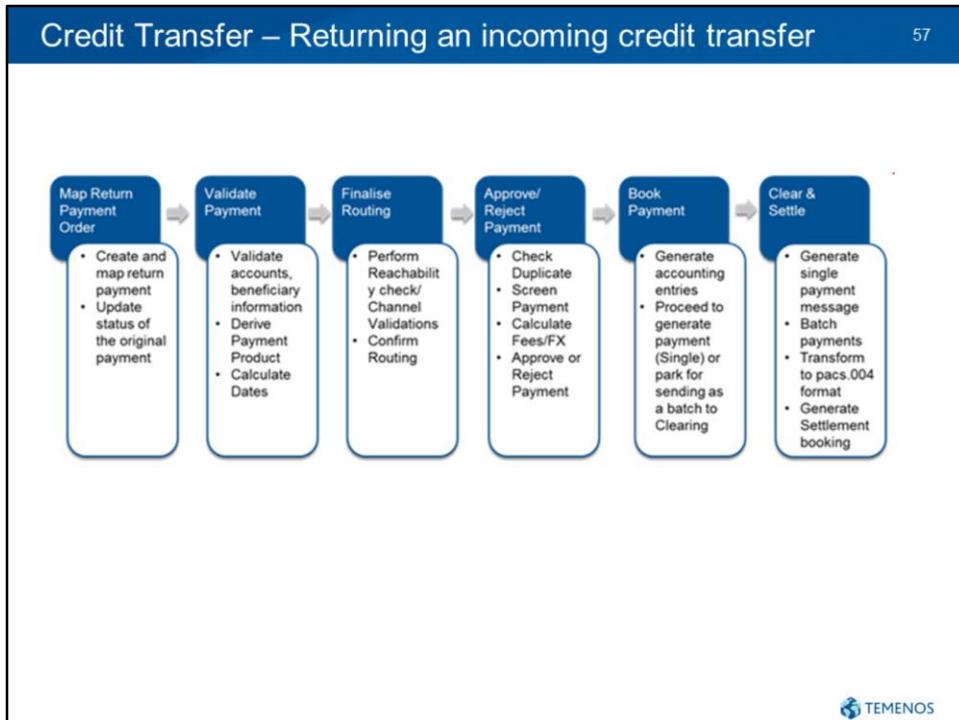
Debit Clearing Nostro Account	Credit Vostro of correspondent Credit PL (For charges if any)
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**Settlement Entry with Clearing House (In case of ACH Payments)**

Debit Clearing Nostro Account - For Bulk Total	Credit Clearing Suspense Account - For Bulk Total
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Suspense and Nostro accounts to be used can be configured –  
PP.CLEARINGSETTING





Credit Transfers are already pre-settled and booked by instructing and instructed banks. Credit Transfers can be returned for the following reasons –

**Credit transfer cannot be executed successfully** due to any exceptions such as missing/invalid Beneficiary Account, account block, restrictions prohibiting credit to the account, then the payment needs to be returned by the instructed/receiving bank.

**Cancellation Request received for a Credit Transfer and is accepted.**

Credit Transfers mentioned above, can be returned manually by an operator or automatically by the system based on business rules configured in the system. Returns which are successful, result in refund of funds to the original debtor, less bank charges, if any.

#### ***Map Return Payment Order***

In the first stage, when a payment is returned, system will create a new Return payment, by mapping the information present in the original payment that is being returned.

A Return transaction is created in the system based on the details of the original transaction:

The Beneficiary party becomes the Ordering Party of the original transaction

The Ordering party becomes the Beneficiary party of the original transaction

The debit main account will be the Return suspense account related to the originating clearing, currency and incoming message type

The credit main account will be the outward suspense account related to the

originating channel

Furthermore, the payment details (additional information) must indicate that it is a return transaction.

The following additional values will be mapped to skip determination of Direction and Routing Channel –

Output Channel – Mapped from Originating Source (Clearing) of the Credit Transfer

Output Channel Imposed Flag – Y (This is set to yes, as the payment is returned back to the same Source/Clearing from which it was received)

Own Account Indicator – N (This means that the payment is “Off Us”)

Direction – Mapped as “O” (Outgoing)

Original credit transfer payment is updated with the business state “Completed with Return” (996).

#### ***Validate Payment Order***

In this stage of the workflow, following validations will be carried out –

Debit account is valid – account is not missing, closed or inactive

Determine (Invoke Product Determination – Light) and arrive at the payment products which will be used to calculate fees and book the payment.

#### ***Finalise Routing***

In this stage, the following is handled –

Reachability check for the Imposed Clearing Channel is invoked.

Once it is confirmed that the beneficiary bank is reachable directly or through an intermediary (Direct participant bank), channel validations are invoked.

Channel validations are configurable per Clearing.

Once channel validations are successful, the payment route/channel is finalised.

Dates are calculated

If payment route cannot be finalised, then system routes the payment to Repair for manual action. [Note- Normally no exceptions are expected at this stage, the payment is returned back to the original source/channel from which it was received.]

#### ***Approve or Reject Payment***

Finalisation of the payment is done at this stage. Payment is checked for duplicates and checked if it is within the allowed period for a Return. Allowed period is arrived at by adding the “Return Period” (AcceptanceDays in PP.CLEARING.SETTING) with original settlement date of the Credit Transfer. Further, payments are screened against Sanctions list, Fees and FX is calculated.

If the payment fails in any of the validations earlier in the workflow or while performing the checks described here, payment will be moved to Manual Repair queue for an operator to repair and return the payment manually.

#### ***Book Payment***

When the payment is successfully finalised, accounting entries are generated, as per the posting rules applicable for the payment. Posting/Booking rules are configurable

in the system.

### ***Clear and Settle***

For outgoing return payments, clearing and settlement is performed at this stage. Outgoing return payment message is generated for single (RTGS) payments if “Send Date” of the payment matches the processing date.

For ACH return payments, which need to be batched and sent, payments will be parked in “Waiting Clearing” (706) status, until the Cut-off time for forwarding the file to the Clearing, is reached.

Outward Clearing Framework is responsible for handling outgoing return payments to the Clearing. It is used to manage the sending of outward payment files to the clearing and generation of the settlement entries.

**Returning an incoming credit transfer**

Debit Return Suspense Account	Credit Clearing Suspense Account
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**Settlement Entry with Clearing House (In case of ACH Payments)**

Debit Clearing Suspense Account	Credit Clearing Nostro Account
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Suspense and Nostro accounts to be used can be configured –  
PP.CLEARINGSETTING



## Workshop – Process PAIN 001

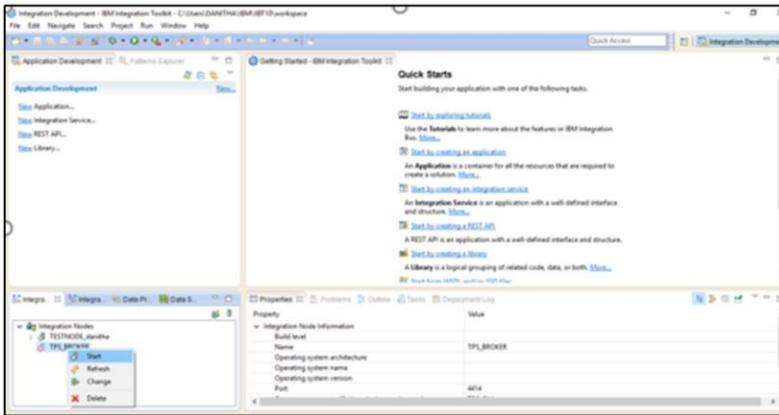


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Workshop – Process an incoming 103

## SEPA CREDIT TRANSFER- Open the IBM Integration Toolkit

**Open the IBM Integration Toolkit – 10.0.0.9 in the folder IBM Integration BUS – 10.0.0.9**



Select TPS\_BROKER, right click and press Start to start the Broker.

## SEPA CREDIT TRANSFER – OUTGOING

Select the XML message from the folder  
C:\Temenos\R18\Env\Slot01\Data\T24\UD\PP\OriginalBackupMsgFolder

This PC > Windows (C:) > Temenos > R18 > Env > Slot01 > Data > T24 > UD > PP > OriginalBackupMsgFolder			
Name	Date modified	Type	Size
PAIN00105_Step2_2Batch01	10/28/2017 9:50 PM	XML Document	12 KB
PAIN00105_Step2_2Batch02	10/12/2017 3:29 PM	XML Document	12 KB
PAIN00105_Step2_2Batch03	10/12/2017 3:55 PM	XML Document	12 KB
PAIN00105_Step2_2Batch04	10/12/2017 4:11 PM	XML Document	12 KB
PAIN00105_Step2_2bulk_A_New	10/13/2017 6:59 PM	XML Document	12 KB
PAIN00105_Step2_2bulk_A_New	10/13/2017 7:01 PM	XML Document	12 KB
PAIN00105_Step2_2bulk_New1	10/13/2017 7:03 PM	XML Document	12 KB
PAIN00105_Step2_2bulk_New2	10/13/2017 7:05 PM	XML Document	12 KB
PAIN00105_Step2_2bulk_New3	10/13/2017 7:51 PM	XML Document	12 KB
PAIN00105_Step2_2bulk_Test1	10/12/2017 6:10 PM	XML Document	12 KB
PAIN00105_Step2_12108	10/12/2017 12:12 ...	XML Document	4 KB
PAIN00105_Step2_121001	11/2/2017 10:38 PM	XML Document	4 KB



## SEPA CREDIT TRANSFER

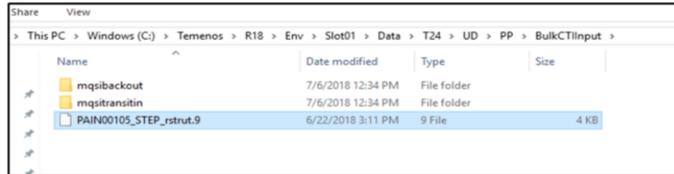
Edit the selected message with Msg ID, Ctrl Sum(Check the individual transaction amount and the total amount of the file is tallied)

```
1  <?xml version='1.0' encoding='UTF-8'?>
2  <!--Sample XML file generated by XMLSpy v2011 rel. 2 (x64) (http://www.altova.com)-->
3  <Document xmlns="urn:tag:std:ipp:2002:tech:ggd:pain.001.001.05" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLoca
4  <CstmrCdtTrfInitn>
5    <GrpHdr>
6      <MsgId>MIDSB430</MsgId>
7      <CreDtTm>2018-04-22T17:47:00</CreDtTm>
8      <DbtrTxId></DbtrTxId>
9      <CtrlSum>50.00</CtrlSum>
10     <InitgPty>
11       <Nm>SCT2211</Nm>
12       <PrltdIdr>
13         <StrtNm>FRANKFURT</StrtNm>
14         <BlgBh>107</BlgBh>
15         <PostCd>644807</PostCd>
16         <Hello>Frankfurt</Hello>
17         <Ctry>GB</Ctry>
18       </PrltdIdr>
19       <IntrgPty>
20     </GrpHdr>
21   <RmtInf>
22     <RmtInfId>PMTINID198</RmtInfId>
23     <RmtId>TRX</RmtId>
24     <BchBkcy>false</BchBkcy>
25     <RmtTpInf>
26       <InstrPrty>NORM</InstrPrty>
27       <cvdVlv>
28         <Cd>SEPA</Cd>
29         <PvldVlv>
30       </cvdVlv>
31       <LclInstrm>
32         <Prtry>TESTONE-Pri</Prtry>
33       </LclInstrm>
34       <TopPmp>
35         <Prtry>Pri</Prtry>
36         <Prtry>Pri</Prtry>
37       </TopPmp>
38     </RmtTpInf>
39     <ReqExectnDt>2018-04-22</ReqExectnDt>
40   </RmtInf>
```



## SEPA CREDIT TRANSFER

Paste the edited message in the folder  
C:\Temenos\R18\Env\Slot01\Data\T24\UD\PP\BulkCTI\Input



Note:

- After you paste in the above folder, the message should disappear.
- If the message disappears in the folder, check the mq\$ibackout folder in the same location to find out for any failure files.

## SEPA CREDIT TRANSFER

**Check the status of the file in the PPT.RECEIVEDFILEDETAILS.  
UserMenu > Payment Hub > Received Files > Received Message / File Details List**

Payment Hub	^
New Payment Orders	▼
Payment Inquiries	^
Pending Payments	▼
Pending and Processed Payments	▼
Received and SentFile Details	^
Received Files Details	▼

Received File Details 6930969398.00	
View	Audit
Message/File Reference	6930969398.00
File Name	PAIN00105_STEP_rstrut.9
Originating Reference	MIDSE430
Received Date Time	20180622173957356
Channel	CTI
Single Multiple Indicator	S
Message Format	pain.001.001.05
Message/File Status	MAPPED
File Type	CTI
Queue Name	TPHCTI
Number Of Records	1
ACK/NACK Generated Indicator	N
File Header TestCode	P
File Header Creation Date/Time	20180622174700123
File Total Amount	52,03
Originating Source	CTI



## Run STPFLOW.MEDIUM Service

### Run BNK/PAYMENT.STPFLOW.MEDIUM service

TSA SERVICE	BNK/PAYMENT.STPFLOW.MEDIUM	✓	✖		↑	↓	- Please Select	GO	
Description	Payment STPFlow Medium								
Server Name		Work Profile	PAYMENT.STPFLOW.MEDIUM	Server Status					
			PAYMENT.STPFLOW.MEDIUM	Payment STPFlow Medium					
User	SEAT USER	SEAT USER							
Service Control	<input type="radio"/> Stop	<input type="radio"/> Start	<input checked="" type="radio"/> Auto						
Review Time									
Time Out									
Attribute Type	Attribute Value								

 TEMENOS

## Run STPFLOW.MEDIUM Service

66

### Pending and Processed Payment Status moved to 706 Waiting – Clearing

Payment Hub	^
New Payment Orders	▼
Payment Inquiries	^
Pending Payments	▼
<b>Pending and Processed Payments</b>	^
Pending Process Payments - Party...	☒
Pending Process Payments - Trans...	☒
Current Status Information of Paym...	☒
Audit Trail for Repair Payments	☒
View Accounting Entries	☒

#### Pending and Processed Payments

Company	FT Number	Ccy	Amt	∅	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	∅	∅
BNK	BNK18173KFFGJCLF	EUR	52.03	BNK	78093	EUR	22 JUN 2018	E2MID1KSRE	INSTRIMIKSRE	706	Waiting - Clearing	66	☒	



## PP.CLEARING.FREQUENCY

Set the cut off time in PP.CLEARING.FREQUENCY

PP.CLEARING.FREQUENCY		STEP2
	Cut Off*	Status
...	00:00	COMPLETED
...	00:05	COMPLETED
...	00:10	COMPLETED
...	00:15	COMPLETED
...	00:20	COMPLETED
...	00:25	COMPLETED
...	00:30	COMPLETED
...	00:35	COMPLETED
...	00:40	COMPLETED
...	00:45	COMPLETED
...	00:50	COMPLETED
...	00:55	COMPLETED
...	01:00	COMPLETED
...	01:05	COMPLETED
...	01:10	COMPLETED
...	01:15	COMPLETED



## Run BNK/CLEARING.SETTLEMENT.SERVICE

68

### Run BNK/CLEARING.SETTLEMENT.SERVICE

TSA SERVICE BNK/CLEARING.SETTLEMENT SERVICE

Description: TSA for CLEARING.SETTLEMENT SERVICE

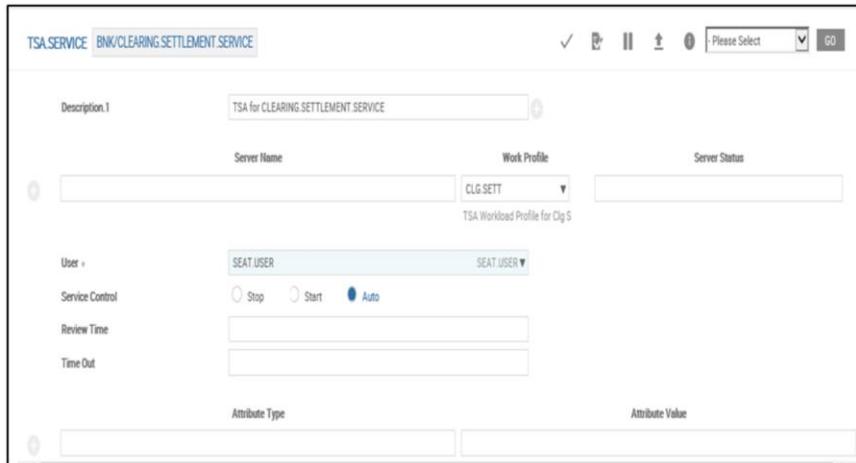
Server Name: CLG SETT Work Profile: CLG SETT Server Status: TSA Workload Profile for Clg S

User: SEAT USER Review Time:

Service Control:  Stop  Start  Auto

Time Out:

Attribute Type Attribute Value



TEMENOS

## View Dashboard

### Pending and Processed Payment Status changed to 999 – Payment Complete

#### Pending and Processed Payments

Company	FT Number	Ccy	Amt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	
BNK	BNK18173KFFGJCLF	EUR	52.03	BNK	78093	EUR	22.JUN.2018	E2MD01KSRE	INSTRIMIKSRE	999	Payment complete	66



## View Dashboard

70

### Check Sent File Details

- Payment Hub
- New Payment Orders
- Payment Inquiries
- Pending Payments
- Pending and Processed Payments
- Received and SentFile Details
- Received Files Details
- Sent File Details
- Sent File Details

BNK SFD18177B91B5Y5Q ICF STEP2 26 JUN 2018 181556198 C 2 ⏪ ⏴

#### Sent File Details View

SFD18177B91B5Y5Q

File Reference.1	SFD18177B91B5Y5Q
Company ID	BNK
FileType	ICF
Single or Multiple	C
Output Channel	STEP2
Creation Date	20180626181556198
File Status	SENT
Number of Bulks	2



## SEPA CREDIT TRANSFER – PACS008

**Sent message to Clearing House can be viewed in the folder  
C:\Temenos\R18\Env\Slot01\Data\T24\UD\PP\CTOutput**

This PC > Windows (C:) > Temenos > R18 > Env > Slot01 > Data > T24 > UD > PP > CTOutput			
Name	Date modified	Type	Size
mqstransit	6/26/2018 6:21 PM	File folder	
SFD18107NHZ0XFQG	5/31/2018 11:16 AM	XML Document	6 KB
SFD18177B91B5Y5Q	6/26/2018 6:16 PM	XML Document	7 KB
SFD18177B91B5Y5R	6/26/2018 6:16 PM	XML Document	8 KB
SFD18177B91B6YLZ	6/26/2018 6:21 PM	XML Document	3 KB



## VIEW PAYMENT DETAILS – Pain 001(View Screen)

SEPA View Screen OE18187Z93WZ

Payment Processing Information	
Status	999
Transaction Reference Number	BNK18173KFFGJCLF
Sender's Reference Number	INSTRIMIKSRE
Priority	1
Related Reference	E2MID1KSRE
Product	SCT
Source	CTI
Direction	O
Transfer Type	C
Incoming Message Type	pain.001S
Balance Reservation	A
Balance Reservation Number	ACLK1817333602
Processing Company	BNK
Processing Date	22 JUN 2018 22 JUN 2018
Output Channel	STEP2
Transaction Currency	EUR
Transaction Amount	52.03
Charge Option	578
Receiver Institution	MIDLGB22



## VIEW PAYMENT DETAILS – Pain 001(View Screen)-Contd 73

Debit Credit Info	Error Information	Charge Information	Routing Information	Additional Information	Ult Dr/Cr Info	Struct Remit Info	Audit
Debit Account Company	BNK				Credit Account Company	BNK	
Debit Account Number	78093				Credit Account Number	EUR1402000010001	
Debit Account Currency	EUR				Credit Account Currency	EUR	
Debit Amount	52.03				Credit Amount	52.03	
Debit Value Date	22.JUN.2018				Credit Value Date	22.JUN.2018	
Debit Date	22.JUN.2018				Credit Date	22.JUN.2018	
Ordering Account	/GB84DEMO60161300 078093				Beneficiary Account	G830DEMO601613000 11219	
Ordering Name	SCT787 EUROPEGB				Beneficiary Name	DEF Electronics	
Ordering Country Residence	GB				Beneficiary Country Residence	GB	



## View Posting Lines – PAIN 001

Pending and Processed Payments

Company	FT Number	Ccy	Amt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	
BNK	BNK18173KFFGJCLF	EUR	52.03	BNK	78093	EUR	22 JUN 2018	E2MID1KSRE	INSTRIMIKSRE	999	Payment complete	66 

Payment Information

Results 1 - 1 of 1

Company ID : BNK

FT Number : BNK18173KFFGJCLF

Options Posting Lines

Posting Lines

Results 1 - 1 of 1

Pstg Line Id	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Deb/Cred Ind	Ccy	Amt	Value Date	Rev Ind	<a href="#">View Statement</a>
1	ACLK1817333602	BNK	78093	EUR	D	EUR	54.03	20180622		<a href="#">View Statement</a>
2	ACLK1817333602	BNK	EUR140200010001	EUR	C	EUR	52.03	20180622		<a href="#">View Statement</a>
3	ACLK1817333602	BNK	PL55513	EUR	C	EUR	2.00	20180622		<a href="#">View Statement</a>

Posting Entries (PAIN 001):

Debit Client Account  
 Credit Suspense Account  
 Credit P&L account for charges

PACS 008 (Settlement):

Debit Suspense Account  
 Credit Clearing Nostro Account

 TEMENOS

## Understand Audit Trial

Audit Trail				Results 1 - 1 of 1
Event Type	Event Description	Error Code	Add Info	History Timestamp
BNF	Message accepted - Transaction created			22.JUN.2018 17:39:59.485
BNF	Weight assigned successfully	MCTI		22.JUN.2018 17:39:59.485
BNF	Inbound Codeword processing not required for this weight and specific weight			22.JUN.2018 17:37:24.849
BNF	SLA not required for this weight and specific weight			22.JUN.2018 17:37:24.849
BNF	Automated Repair Tool not required for this weight and specific weight	M.CTI		22.JUN.2018 17:37:24.849
BNF	Payment Successfullly Initiated	S		22.JUN.2018 17:37:24.849
BNF	Debit Authority successful - Debit Authority Indicator set	BNK(00278093)		22.JUN.2018 17:37:24.849
BNF	Debit Party Successfully Determined	N		22.JUN.2018 17:37:24.849
BNF	Own Account successfully Determined	OIC		22.JUN.2018 17:37:24.849
BNF	Direction and Transfer type successfully determined	MWA/SEPADEFAUTISSEPADEFAUTOUTSHA_ST01		22.JUN.2018 17:37:24.849
BNF	Product determination successful	GB84DEM06161300078093178093		22.JUN.2018 17:37:24.849
BNF	Account sent to DDA does not mismatch with account received	BNK(18093EUR		22.JUN.2018 17:37:24.849
BNF	Debit Main Account Successfully Validated			22.JUN.2018 17:37:24.849
BNF	Balance will be reserved without including charges			22.JUN.2018 17:37:24.849
BNF	Funds Authorization request is Approved and reservation created	ACLK1817333602		22.JUN.2018 17:37:24.849
BNF	Client Condition read successfully	*****VVVVVV*		22.JUN.2018 17:37:24.849
BNF	Duplicate check performed successfully			22.JUN.2018 17:37:24.849
BNF	R&S Output Channel is successfully determined	STEP2:TARGET2:LOROBNK:SEPA-20160101		22.JUN.2018 17:37:24.849
BNF	If A & S Option is successfully selected	STEP2BNK:SEPA-20160101		22.JUN.2018 17:37:24.849
BNF	Credit Account is successfully determined	BNK:EUR1402000010001001EUR		22.JUN.2018 17:37:24.849
BNF	Credit Party successfully validated	EUR1402000010001 / BNK / BNK		22.JUN.2018 17:37:24.849
BNF	Client Condition read successfully	*****VVVVVV*		22.JUN.2018 17:37:24.849
BNF	Date Determination Successful	Proc:20180622CVO:20180622DVO:20180622PSO:20180622CSD:IBD:20180622EXD:20180622		22.JUN.2018 17:37:24.849
BNF	FATF Regulations Successfully met			22.JUN.2018 17:37:24.849
BNF	STP successfully completed			22.JUN.2018 17:37:24.849
BNF	End of STP processing in Single flow service	4000205		22.JUN.2018 17:37:24.849
BNF	Firing not required for this weight and specific weight			22.JUN.2018 17:37:24.849
BNF	Status code changed to Ready for Risk Filter			22.JUN.2018 17:37:24.849
BNF	RiskFiltering not required for this weight and specific weight			22.JUN.2018 17:37:24.849
BNF	Record key - ClientCharges table used for peeling off	SEPA-20161031DEFAULTSEPA*****BNK*****		22.JUN.2018 17:37:24.849
BNF	Fee Processing is successful			22.JUN.2018 17:37:24.849
BNF	The Balance Check with charges process is skipped for the payment			22.JUN.2018 17:37:24.849
BNF	Posting lines and statement lines generated successfully and passed to Ledger	BNK18173KFFGJCLF		22.JUN.2018 17:37:24.849
BNF	Posting completed successfully			22.JUN.2018 17:37:24.849
BNF	Payment pending to be sent to the clearing			22.JUN.2018 17:37:24.849
BNF	Payment settled and sent for file generation as part of Outgoing settlement process	SB01817794237		26.JUN.2018 16:15:56.198



## Workshop – Process incoming PACS 008

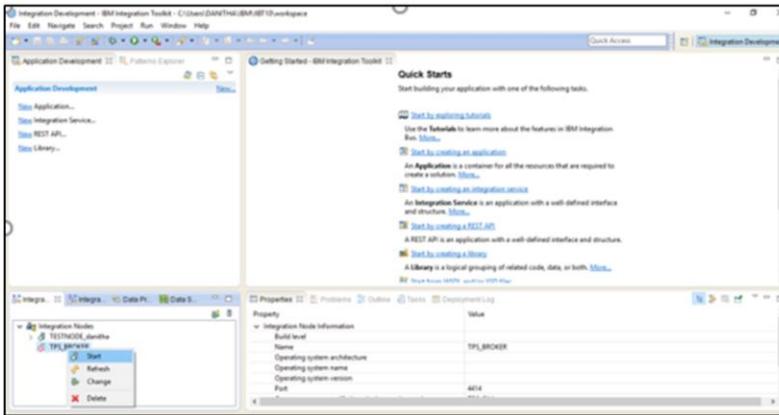


 TEMENOS

Workshop – Process an incoming PACS 008 from STEP2

## SEPA CREDIT TRANSFER- Open the IBM Integration Toolkit

### Open the IBM Integration Toolkit – 10.0.0.9 in the folder IBM Integration BUS – 10.0.0.9



 TEMENOS

Select TPS\_BROKER, right click and press Start to start the Broker.

## SEPA CREDIT TRANSFER - INCOMING PACS 008

Select the XML message from the folder  
C:\Temenos\R18\Env\Slot01\Data\T24\UD\PP\OriginalBackupMsgFolder

OriginalBackupMsgFolder			
	Name	Date modified	Type
			Size
Quick access	PAC5008_SINGLES	4/12/2017 7:29 PM	XML Document
Desktop	PAC5008bulk_01	10/12/2017 4:23 PM	XML Document
Downloads	PAC5008bulk_return_01	10/12/2017 5:12 PM	XML Document
Documents	PAC5008bulk_return_02	10/12/2017 5:16 PM	XML Document
Pictures	PAC500802_I_AutoRet_Pacs004_T1	10/20/2017 11:45 ...	XML Document
Slot01	PAC500802_I_AutoRet_Pacs004_T2	10/20/2017 9:16 PM	XML Document
UD	PAC500802_I_AutoRet_Pacs004_T3	10/20/2017 9:45 PM	XML Document
OriginalBack	PAC500802_I_AutoRet_Pacs004_T4	10/20/2017 9:52 PM	XML Document
ESL 2nd week	PAC500802_I_AutoRet_Pacs004_T5	10/20/2017 9:58 PM	XML Document
SWIFT Doc	PAC500802_In1	10/12/2017 6:32 PM	XML Document
TPH	PAC500802_In3	10/12/2017 6:55 PM	XML Document
TPS	PAC500802_Incoming_T1	10/20/2017 11:37 ...	XML Document
	PAC500802_Incoming_T2	10/20/2017 11:41 ...	XML Document



## SEPA CREDIT TRANSFER

Edit the selected message with Msg ID, Ctrl Sum(Check the individual transaction amount and the total amount of the file is tallied)

```
1 <S2SCTScf:SCTScfBkCredTrf xsi:schemaLocation="urn:S2SCTScf:xsd:$SCTScfBkCredTrf SCTScfBk
2   <S2SCTScf:SndgInst>EBAPFRP</S2SCTScf:SndgInst>
3   <S2SCTScf:RcvgInst>DEMOGBPFX</S2SCTScf:RcvgInst>
4   <S2SCTScf:SrvCld>T</S2SCTScf:SrvCld>
5   <S2SCTScf:TatCode>T</S2SCTScf:TatCode>
6   <S2SCTScf:SCF><S2SCTScf:FileRefType>
7     <S2SCTScf:FileRef>NSCT599740004481</S2SCTScf:FileRef>
8     <S2SCTScf:RoutingInd>ALL</S2SCTScf:RoutingInd>
9     <S2SCTScf:FileBusDt>2018-07-02</S2SCTScf:FileBusDt>
10    <S2SCTScf:FileCycleNo>01</S2SCTScf:FileCycleNo>
11    <S2SCTScf:FileRef>IToFICstmrmCdtTrf xmlns="urn:iso:std:iso:20022:tech:xsd:pacs.008.001.02">
12      <GrpHdr>
13        <MsgId>NSCT599740004481</MsgId>
14        <CreDtTm>2018-07-02T15:20:37</CreDtTm>
15        <NbOfTxn>1</NbOfTxn>
16        <TtlIntBkStlmtAmt Ccy="EUR">41.82</TtlIntBkStlmtAmt>
17        <IntrBkStlmtDt>2018-07-02</IntrBkStlmtDt>
18        <StlmtInf>
19          <StlmtMtd>CLRG</StlmtMtd>
20          <ClrSys>
21            <Prtry>ST2</Prtry>
22            <ClrSys>
23          <StlmtInf>
24            <InstdAgt>
25              <FinInstnId>
26                <BIC>DEMOGBPFX</BIC>
27              <FinInstnId>
28            </InstdAgt>
29            <GrpHdr>
30              <CatTrfTxnInf>
31                <PmtId>
32                  <InstrId>INSTRID4481</InstrId>
33                  <EndToEndId>E2EID4481</EndToEndId>
34                  <TxId>TRANIDRPC4481</TxId>
35                </PmtId>
36                <PmtTpInf>
```



## SEPA CREDIT TRANSFER

Paste the edited message in the folder  
C:\Temenos\R18\Env\Slot01\Data\T24\UD\PP\STEP2\Input

This PC > Windows (C) > Temenos > R18 > Env > Slot01 > Data > T24 > UD > PP > STEP2\Input >			
Name	Date modified	Type	Size
mqшибackout	7/2/2018 11:43 AM	File folder	
mqшибtransin	7/2/2018 11:50 AM	File folder	
PACS008_SINGLES-15	7/2/2018 12:19 PM	XML Document	3 KB

**Note:**

- After you paste in the above folder, the message should disappear.
- If the message disappears in the folder, check the mqшибackout folder in the same location to find out for any failure files.

## SEPA DIRECT DEBIT

### Check the status of the file in the PP.INPUT.FILE

Received File Details 7747114285.00				
		View	Audit	Initiating Party Details
Message/File Reference	7747114285.00			
File Name	PAC5008_SINGLE5_15.xml			
Originating Reference	NSCT599740004481			
Received Date Time	20180702122125250			
Company ID	BNK			
Channel	STEP2			
Single Multiple Indicator	C			
Message Format	SCF			
Message/File Status	MAPPED			
File Type	SCF			
File Type Indicator	P			
Queue Name	STEP2			
ACK/NACK Generated Indicator	N			
File Header TestCode	T			
File Header Service Identifier	SCT			
File Header Creation DateTime	20180702000000000			
File Header Sending Institution	EBAPFRPP			
File Header Receiving Institution	DEMOGBPX			
Originating Source	STEP2			



Currently in this Model Bank Version viewing the status of the file in PP.INPUT.FILE, but in future check the status of the file in PPT.RECEIVEDFILEDETAILS.

## View Dashboard

### Pending and Processed Payment Status - Message Mapping

Payment Hub	^
New Payment Orders	▼
Payment Inquiries	^
Pending Payments	▼
<b>Pending and Processed Payments</b>	^
Pending Process Payments - Party...	↙
Pending Process Payments - Trans...	↙
Current Status Information of Paym...	↙
Audit Trail for Repair Payments	↙
View Accounting Entries	↙

#### Pending and Processed Payments

Company	FT Number	Ccy	Amt	⊖	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	⊖
BNK	BNK181830BCFKBJ	EUR	41.82								4	Completed - Message Mapping	⊕ ↴
BNK	BNK18183JGGFCBCF	EUR	41.82					E2EID4481	TRANIDRFC4481		4	Completed - Message Mapping	⊕ ↴



Two transactions are created

- Settlement transaction
- Incoming Payment

## Run STPFLOW.LIGHT Service

### Run BNK/PAYMENT.STPFLOW.LIGHT service

TSA.SERVICE BNK/PAYMENT.STPFLOW LIGHT

Description:	Payment STPFlow Light
Server Name:	Payment STPFlow Light
Work Profile:	PAYMENT STPFLOW LIGHT
Server Status:	Payment STPFlow Light
User:	SEAT USER
Service Control:	<input type="radio"/> Stop <input type="radio"/> Start <input checked="" type="radio"/> Auto
Review Time:	
Time Out:	

### Pending and Processed Payment Status moved to 999 - Payment Completed

#### Pending and Processed Payments

Company	FT Number	Ccy	Amt	⊖	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	⊖
BNK	BNK181830BCFKBJ	EUR	41.82	⊖	BNK	15415	EUR	02.JUL.2018			999	Payment complete	⊖
BNK	BNK18183JGGFCBCF	EUR	41.82	⊖	BNK	14637	EUR	02.JUL.2018	E2EID4481	TRANIDRFC4481	999	Payment complete	⊖

 TEMENOS

## VIEW PAYMENT DETAILS – Pacs 008IS

Repair View Screen 0E18183T8ZG8

Payment Processing Information	
Status	999
Transaction Reference Number	BNK181830BCFKBKJ
Processing Date Imposed Flag	Yes
Priority	1
Source	STEP2
Output Channel	LEDGER
Direction	B
Transaction Currency	EUR
Transfer Type	C
Incoming Message Type	pacs.008IS
Balance Reservation	S
Processing Company	BNK
Processing Date	02 JUL 2018 02 JUL 2018
Transaction Amount	41.82
Charge Option	Sha



## VIEW PAYMENT DETAILS – Pacs 008 - Contd

Debit Credit Info		Error Information	Charge Information	Routing Information	Additional Information	Audit
Debit Account Company	BNK	Credit Account Company	BNK			
Debit Account Number	15415	Credit Account Number	EUR14020000100 01			
Debit Account Currency	EUR	Credit Account Currency	EUR			
Debit Amount	41.82	Credit Amount	41.82			
Debit Value Date	02.JUL.2018	Debit Value Date Imposed Flag	Yes	Credit Value Date	02.JUL.2018	Credit Value Date Imposed Flag
Ordering Account	15415	Beneficiary Account	EUR14020000100 01			
Ordering Name	Euroclear	Beneficiary Name	Clearing Suspense Account			
Ordering Address	1 BOULEVARD DU ROI ALBERT II	Beneficiary Address	18 Place De Philosophes,			
Ordering Town/PostalCode	B-1210 BRUSSELS	Beneficiary Town/PostalCode	CH 1205 Geneva, - 1			
Ordering Country	BELGIUM	Beneficiary Country	Switzerland			
Ordering Residence	-1	Beneficiary Residence	-2			
Ordering BE						

 TEMENOS

## View Posting Lines – PACS 008 Settlement

Pending and Processed Payments													
Company	FT Number	Ccy	Amt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description		
BNK	BNK181830BCFKBKJ	EUR	41.82	BNK	15415	EUR	02 JUL 2018			999	Payment complete		

Results 1 - 1 of 1

**Payment Information**

Company ID: BNK

FT Number: BNK181830BCFKBKJ

Options Posting Lines

Results 1 - 1 of 1

**Posting Lines**

Pstg Line No	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Deb Cre Ind	Ccy	Amt	Value Date	Rev Ind	
1	BNK	15415	EUR	D	EUR	41.82	20180702			<a href="#">View Statement</a>
2	BNK	EUR1402000010001	EUR	C	EUR	41.82	20180702			<a href="#">View Statement</a>

[PACS 008 \(Settlement\)](#):

Debit Clearing Nostro Account  
 Credit Suspense Account



## View Posting Lines – PACS 008

Pending and Processed Payments												
Company	FT Number	Ccy	Amt	Acc Comp	Acc Num	Acc Ccy	Date	Cust Ref	Sender Ref	Status Code	Description	⋮
BNK	BNK1818308CFK8KJ	EUR	41.82	BNK	15415	EUR	02 JUL 2018			999	Payment complete	
BNK	BNK18183JGGFCBCF	EUR	41.82	BNK	14637	EUR	02 JUL 2018	E2EID4481	TRANIDRFC4481	999	Payment complete	

TEMENOS

Payment Information											Posting Lines									
Results 1 - 1 of 1											Results 1 - 1 of 1									
Company ID :	BNK										Postg Line No	Reserv Key	Acc Comp Id	Acc Num	Acc Ccy	Deb/Cre Ind	Ccy	Amt	Value Date	Rev Ind
Company ID :	BNK										1		BNK	EUR1402000010001	EUR	D	EUR	41.82	20180702	<a href="#">View Statement</a>
FT Number :	BNK18183JGGFCBCF										2		BNK	14637	EUR	C	EUR	41.82	20180702	<a href="#">View Statement</a>
<input style="border: 1px solid #ccc; padding: 2px; width: 100px; height: 20px; margin-bottom: 5px;" type="button" value="Options"/> <input style="border: 1px solid #005596; color: white; background-color: #005596; padding: 2px; width: 100px; height: 20px;" type="button" value="Posting Lines"/>																				

[Posting Entries \(PACS 008\)](#) :

**Debit Suspense Account**  
**Credit Client Account**



# Understand Audit Trial

Audit Trail				Results 1 - 1 of 1
Event Type	Event Description	Error Code	Add Info	History Timestamp
INF	Transaction released as part of incoming settlement process			02.JUL.2018 12:21:25.335
INF	Bulk Reference ID: E3B-975bc952f-071a-4ea2-80fe-00a1dc624338-1			02.JUL.2018 12:21:25.335
INF	Weight assigned successfully	LSTL		02.JUL.2018 12:21:25.335
INF	Inbound Codeword processing not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	SLA not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Automated Repair Tool not required for this weight and specific weight	LSTL		02.JUL.2018 12:35:56.856
INF	Payment Successfully Initiated			02.JUL.2018 12:35:56.856
INF	Debit Authority not required for this weight and specific weight	S		02.JUL.2018 12:35:56.856
INF	Debit Party Successfully Determined	(1541)S		02.JUL.2018 12:35:56.856
INF	Own Account successfully Determined	Y		02.JUL.2018 12:35:56.856
INF	Directee and Transfer type successfully determined	BC		02.JUL.2018 12:35:56.856
INF	Credit Party successfully determined	EUR1402000010001 / BNK /		02.JUL.2018 12:35:56.856
INF	Debit Main Account Successfully Validated	BNK01541SEUR		02.JUL.2018 12:35:56.856
INF	Credit Main Account Successfully Validated	BNK01EUR1402000010001 EUR		02.JUL.2018 12:35:56.856
INF	The Funds Authorization process is skipped for the payment			02.JUL.2018 12:35:56.856
INF	Client Condition rule successfully	*****		02.JUL.2018 12:35:56.856
INF	Client Condition rule successfully	*****		02.JUL.2018 12:35:56.856
INF	Date Determination Successful	Proc.20180702 CVD.20180702 DVD.20180702 PSD CSD BD.20180702 EXD.20180702		02.JUL.2018 12:35:56.856
INF	Duplicate Check not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	FATF Regulations Successfully met			02.JUL.2018 12:35:56.856
INF	STP Successfully completed			02.JUL.2018 12:35:56.856
INF	End of STP processing in single flow service	6009327		02.JUL.2018 12:35:56.856
INF	Filtering not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Status code changed to ready for Risk Filter			02.JUL.2018 12:35:56.856
INF	RiskFiltering not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Fee Processing not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	The Balance Check with charges process is skipped for the payment			02.JUL.2018 12:35:56.856
INF	Posting lines and statement lines generated successfully and passed to Ledger			02.JUL.2018 12:35:56.856
INF	Posting completed successfully	BNK181830BCFKBKJ		02.JUL.2018 12:35:56.856
INF	Local Clearing Component processing complete and the return status is	Complete		02.JUL.2018 12:35:56.856
INF	Confirmations not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Payment processing is complete			02.JUL.2018 12:35:56.856

 TEMENOS

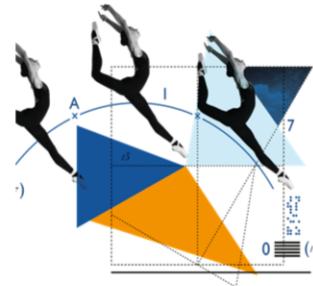
## Understand Audit Trial

89

Audit Trail				Results 1 - 1 of 1
Event Type	Event Description	Error Code	Add Info	History Timestamp
INF	Message Created successfully			02.JUL.2018 12:21:25.330
INF	Weight assigned successfully	LISCT		02.JUL.2018 12:21:25.330
INF	Inbound Codeword processing not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	SLA not required for this weight and specific weight	LISCT		02.JUL.2018 12:35:56.856
INF	Automated Repair Tool not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Payment successfully initialized			02.JUL.2018 12:35:56.856
INF	Debit Authority not required for this weight and specific weight	S		02.JUL.2018 12:35:56.856
INF	Debit Party Successfully Determined	BNA0EUR1402000010001 EUR		02.JUL.2018 12:35:56.856
INF	Credit Party Role defined	ACWRS		02.JUL.2018 12:35:56.856
INF	Own Account successfully Determined	Y		02.JUL.2018 12:35:56.856
INF	Direction and Transfer type successfully determined	EC		02.JUL.2018 12:35:56.856
INF	Product determination successful	LWA SEPA SEPA-INCT3 LEDGER DEFAULT T SEPA-INCT3		02.JUL.2018 12:35:56.856
INF	Credit Party successfully determined	00014057 / BNK / BNK		02.JUL.2018 12:35:56.856
INF	Debit Main Account Successfully Validated	BNA0EUR1402000010001 EUR		02.JUL.2018 12:35:56.856
INF	Credit Account Number returned by the ledger is different from the account present in the payment instruction	GB810EM000161300014637 14537		02.JUL.2018 12:35:56.856
INF	Credit Main Account successfully Validated	BNK14837 EUR		02.JUL.2018 12:35:56.856
INF	The Funds Authorization process is skipped for the payment			02.JUL.2018 12:35:56.856
INF	Client Condition read successfully	SEPA-INCT3 SEPA***** "(SEPA-INCT3 SEPA)?"		02.JUL.2018 12:35:56.856
INF	Client Condition read successfully	SEPA-INCT3 SEPA***** "(SEPA-INCT3 SEPA)?"		02.JUL.2018 12:35:56.856
INF	Date Determination Successful	Proc 20180702 CVO 20180702 D 20180702 P GD CSD B0 20180702 X0 20180702		02.JUL.2018 12:35:56.856
INF	Duplicate Check not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	FATF Regulations Successfully met			02.JUL.2018 12:35:56.856
INF	STP successfully completed			02.JUL.2018 12:35:56.856
INF	End of STP processing in Single flow service	600327		02.JUL.2018 12:35:56.856
INF	Filtering not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Status code changed to ready for Risk Filter			02.JUL.2018 12:35:56.856
INF	Risk Filtering not required for this weight and specific weight			02.JUL.2018 12:35:56.856
INF	Record key - ClientCharges table used for peeling off	SEPA-20161031 DEFAULT T SEPA " BNK ?"		02.JUL.2018 12:35:56.856
INF	Fee Processing is successful			02.JUL.2018 12:35:56.856
INF	The Balance Check with charges process is skipped for the payment			02.JUL.2018 12:35:56.856
INF	Posting lines and statement lines generated successfully and passed to Ledger	BNK18183JGOFBCOF		02.JUL.2018 12:35:56.856
INF	Posting completed successfully	Complete		02.JUL.2018 12:35:56.856
INF	Local Clearing Component processing complete and the return status is			02.JUL.2018 12:35:56.856
INF	Payment processing is complete			02.JUL.2018 12:35:56.856



- Overview of Clearing Framework
  - PP.CLEARING
  - PP.CLEARING.SETTING
  - PP.CLEARING.NATURECODE
  - PP.CLEARING.DIRECTORY
  - PP.SOURCE.SETTING
- Process SEPA Credit Transfers





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