



MUFG Exchange – File Import specification
Wire Transfer – ISO20022 (XML) format



USER GUIDE

EFFECTIVE DATE: JUNE 2023

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FILE IMPORT - INTRODUCTION

MUFG Exchange Payments Center supports file import of transactions, templates transactions from templates, and beneficiaries. Multiple formats are supported for virtually all payment types. Supported formats include:

- CSV
- ISO20022
- NACHA
- SWIFT MT101

This document covers ISO20022 (XML, pain.001) file format for transactions. This is one of several specifications documents covering File Import and Payment Automation: Format and data requirements. Specifications are provided here for: Wire Transfer – Domestic and International.

This and other specifications documents covering File Import and Payment Automation formats are available in MUFG Exchange online help and by request.

OVERVIEW

MUFG Exchange Payment Center supports file import of multiple transaction types in a variety of formats. The most configurable format is “CSV” which supports multiple options. Additional formats are purpose built for the transactions they cover, including SWIFT MT101 (for international wires) and NACHA (for US ACH). The ISO 20022 payment message standards (schema) are increasingly important as a financial services industry messaging standard in the US and globally. The ISO 20022 (XML) schema covers Domestic Wire Transfers (including book or on us transfers) and International Wire Transfers (including USD, foreign currency and foreign exchange wires).

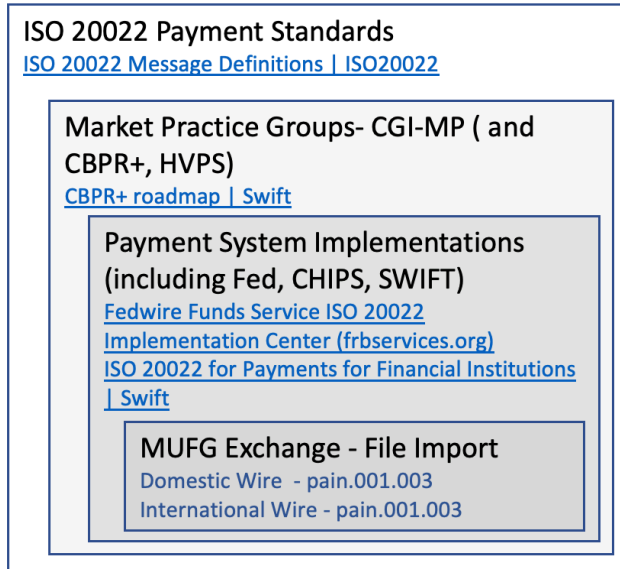
Some definitions:

- ISO-The International Standards Organization, a global standards body with many countries and standards bodies as members. Members include USA (through ASC x9), Japan, Germany, France, Singapore, and many others. ISO owns and publishes a variety of financial services standards including BIC, IBAN, and ISO20022.
- ISO20022 message standards are increasingly important throughout the payments industry with many payment systems, financial applications, and corporations using, supporting, or planning to use these message formats. The standard supports multiple payment messages for different purposes. Payment Center file import supports the ISO20022 schema, pain.001 (corporate to bank Payment Initiation).

Pain.001 (Corporate to Bank Payment Initiation) is an XML based payment industry standard, a sister to the Bank to Bank Payment standard (pacs.008) used or soon to be used in a number of many countries’ national wire transfer systems including the US payment systems Fedwire and CHIPS, as well as with SWIFT. ISO 20022 was developed by the ISO20022 Registration Management Group as an ISO standard (country codes and currency codes are also ISO standards). Payment industry groups have worked to position use of the standards in various contexts including use with corporate to bank and bank to bank wire transfers.

The Payment Center implementation of the pain.001 message standard aligns substantially with the work of CGI-MP (Common Global Implementation Market Practice Group) a group of corporates, banks, and financial systems providers. Many ERP and TMS applications have implemented pain.001 to support their clients’ payment integration requirements. Standards groups involved in the development of these standard are reflected in Exhibit 1. ISO created and maintains the standard, market practice groups interpret and apply the standard, MUFG has implemented the standard in Payment Center file import and elsewhere.

Exhibit 1



File import operation overview: The MUFG Exchange file import function can be accessed from the Payments and Templates List Views. Once the function is accessed, the File Import Screen appears. The user selects:

1. The file format specification e.g. "Wire-Domestic XML".
2. The import method: Test or production,
3. The file to be imported, and
4. The user can then initiate the import function.

After the user initiates import, a message appears with the job ID indicating that the import job has been queued. The user can then go to the File Import History screen to see the progress of the job and to view the results of the import. The import may require some seconds depending on the size of the import file. The screen should be refreshed using the circular arrow icon at the top right of the list view. The summary results of the file import will now appear. Using the View option, the user can drill down to see the results of the import.

During the initial testing, first errors occur at the file level. Once corrected, errors may appear at the transaction level. The import file will need to be revised (at the source system) to address the error conditions. One or more corrective passes will ultimately give you successful file import results.

MUFG EXCHANGE – FILE IMPORT AND PAYMENT AUTOMATION

Exhibit 2 - Supported formats for transaction import

Supported formats for transaction import		
Option	Format Name / Payment Type	File Types
File import	Wire – Domestic	ISO20022 (XML) pain.001, CSV, Fixed Width
	Wire – International	ISO20022 (XML) pain.001. CSV, Fixed Width, SWIFT MT101
	Wires and Account Transfer in single file (Multi-type) CSV:	CSV, Fixed Width
	ACH - All supported transaction types (SEC codes)	NACHA, CSV, Fixed Width NACHA Pass-through
	Account Transfer	ISO20022 (XML) pain.001. CSV, Fixed Width
Payment Automation	Wire – Domestic	ISO20022 (XML) pain.001, CSV, Fixed Width
	Wire – International	ISO20022 (XML) pain.001. CSV, Fixed Width, SWIFT MT101
	Wires, ACH, Account Transfer in a single file (credit transfer)	ISO20022 (XML) pain.001, (credit transfer), CSV, Fixed Width.
	ACH - All supported ACH transaction types (SEC codes)	NACHA, ISO20022 (XML) pain.001, (credit transfer), pain.008 (direct debit), CSV, Fixed Width
	Account Transfer	ISO20022 (XML) pain.001. CSV, Fixed Width

ISO 20022 FILE IMPORT FORMAT OVERVIEW

MUFG Exchange supports ISO20022 file import in industry standard format for each transaction type, domestic wire and international wire. Predefined formats provide a simple means to import payments and templates. The file to be imported must comply with the standard formats for the transaction types to be imported. Requirements of the industry format must be met by import files. A number of optionalities supported by the industry standard are also supported by MUFG Exchange file import.

Import files must comply with:

- The import file data structures as specified for the ISO20022 pain.001.001.003 standard.
- The mandatory field requirements of the payment type.
- The allowed values in a field e.g. the ISO 2 character country codes where country is required.
- The character set requirements of the format and payment type.
- Payment Center uses two standard ISO20022 import maps (Domestic Wire and International Wire), identified as XML in the list of import specifications.

IMPORT MAPS – SETUP AND OPERATION

Use of the import function requires access to several of Payment Center's list views. In addition to the payment and template list views, the File Import History widget should be added to the Payments Center. Click on the gear icon at the top right hand corner of the Payments Center screen to list the available widgets and click on File Import History to add this widget (list view) to the current webpage. File Import History provides summary and detailed results of a transaction or template file load. An additional widget, Import Map, is useful for configuring CSV and related import maps but is not applicable to import using industry specifications such as ISO20022 pain.001 (and NACHA, SWIFT MT101). We recommend you start with domestic wire schema as it is a similar but simpler version of the international wire schema.

The sequence of events for file import operations:

Setup

- Select the standard ISO20022 import format option
- Your import file should be compliant with the ISO20022 file format and the MUFG Exchange requirements for each payment type.
- Payment Center uses two standard ISO20022 import maps (Domestic Wire and International Wire), identified as XML in the list of import specifications.

Test

- The user can test files using the test option in file import. During development of the import file, files may be imported in test mode to validate alignment of the import file with the import map before converting to production.
- Run File Import from the Payment list views.
- Refer to File Import History. The File Import History widget can provide results of file imports including file and transaction level success or failure. Be sure to refresh the screen for all test results. Full validation of the file may take a few seconds to a minute based on file size. Both the list view and the reporting and file extract options may be useful in identifying any error conditions.
- Correct the file. Recreate the test file once errors are corrected.
- Rerun File Import in test. File import statuses include:
 1. File Rejected - Schema violation
 2. Transaction Rejected
 3. Transaction Accepted - Status = Needs Repair
 4. Transaction Accepted - Status = Entered
- Repeat the above cycle until no errors are generated from test file import.
- File import status results:

File rejection (error condition 1) - File validation and possible file rejection occurs first before transactions can be validated. Any file level error messages will appear only in File Import History and apply to the complete file. If a file fails to load for error conditions, transaction validation cannot be performed and no transaction error conditions will be reported.

Transactions rejection (error condition 2) - File Import History will display any transaction level error conditions. Rejected transactions will not be loaded. A file with the transaction level option may have both accepted and rejected transactions.

Transactions Need Repair - The Payments list view and File Import History will provide details of the error. Transactions in Needs Repair status are loaded with error conditions requiring repair.
- Note that File Import takes some seconds to complete, longer for larger files. File Import History will need to be refreshed to show the results of the file import.

Production

- Once testing is successful, the import file is ready for production. Moving to production is as simple as choosing the Production option (rather than the test option) during file import.
- Anytime there is an issue with file import in production the File Import History function can provide details on status and error conditions.

ISO20022 SUMMARY REQUIREMENTS

MUFG Exchange Payment Center supports file import using the ISO 20022 Corporate to Bank schema pain.001.001.003. This schema can be used to import files (schema) of wire payments, either domestic or international.

Import files may contain any number of transactions of the same type, Domestic or International. Each type has its own import file specification. Domestic wires must be imported using the Wires-Domestic XML import format. International wires must be imported using the Wires-International XML import format. Some overall considerations:

- The character set used must reflect the character setup for the transaction types involved.
- All data elements mandatory to the pain.001 schema must be present and populated.
- All data elements required by MUFG must be populated with data that will pass validations e.g. valid debit account numbers present in your setup, valid Fedwire ABA's to identify the beneficiary bank, value dates field lengths within specified maximums (and as reflected in payment entry screens).
- The initiating party name field must be populated with your company name as recorded in MUFG Exchange.
- Optional fields, if not populated, need not appear in the payment message.
- Examples of unused fields:
 - At the file level: Transaction amount (validated if present)
 - At the transaction level:
 - Beneficiary bank and intermediary bank address fields including city and country which are available to the system, sourced from an internal table.
 - Debtor name (the account holder) and address. Both are on file in association with the account number. Debtor name if provided must equal the account name.
- Where present, structured address fields must be used. For example, for wire beneficiary address: "TwnName" (for city) and "Ctry" (for country) must be used.

Character Set

Supported characters include the following:

a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
0 1 2 3 4 5 6 7 8 9
/ - ? : () . , ' +

Exhibit 3:

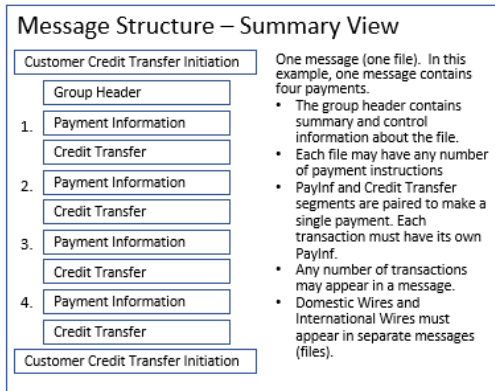
XML reserved characters which should not appear in transactions:

Name	Character	Unicode code point (decimal) Standard	Description
quote "	U+0022 (34)	XML 1.0	double quotation mark
amp &	U+0026 (38)	XML 1.0	ampersand
apos '	U+0027 (39)	XML 1.0	apostrophe (apostrophe-quote)
lt <	U+003C (60)	XML 1.0	less-than sign
gt >	U+003E (62)	XML 1.0	greater-than sign

PAIN.001 - SCHEMA STRUCTURE

The pain.001 file import format contains all the data elements required to make a payment. The group header provides summary and control information about the contents of the file. Each payment appears in the file in a pair of segments, Payment Information and Credit Transfer. Domestic and International Wire are the same at this level.

Exhibit 4 - Message Structure – Summary View



Each payment instruction includes multiple segments, some optional (e.g. intermediary agent), some mandatory (payment information and debtor). Exhibit 5 illustrates the major components of a payment. Payment type shown is International Wire. Domestic Wire is very similar at this level, differing only by inclusion of the Intermediary Bank.

Exhibit 5 – Message Structure - Components of a Payment

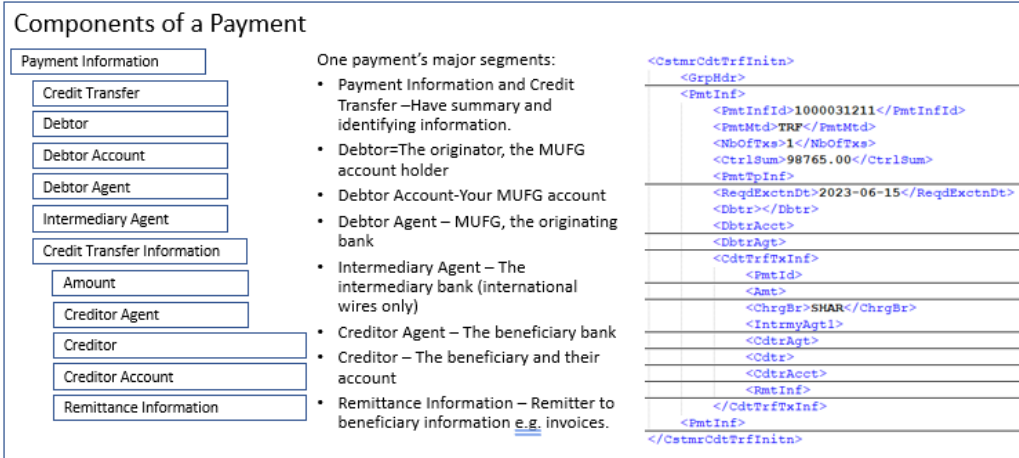


Exhibit 6 shows a complete view of a file with Group Header and two payments, the first reflecting the major components of a payment. Two payments (PayInf) are shown, one detailed, one summary. Payment type is International Wire.

Exhibit 6 – Message Structure – Major Components

Message Structure	
Group Header	
Message ID	
Create Date, Time	
Number of Transactions	
Control Sum (Amount)	
Payment Information	
Pay Inf ID	
Payment Method	
Number of Transactions	
Control Sum (Amount)	
Pay Type Information	
1. Debtor	
2. Debtor Account	
3. Debtor Agent	
4. Intermediary Agent	
5. Credit Transfer Information	
6. Amount	
7. Creditor Agent	
8. Creditor	
9. Creditor Account	
10. Remittance Information	
Payment Information	

Example: Three payments in one message showing the major segments of the first payment.

The major components of a payment:

1. Debtor-The originator, the MUFG account holder
2. Debtor Account-Your MUFG account
3. Debtor Agent – MUFG, the originating bank
4. Intermediary Agent – The intermediary bank (international wires only)
5. Creditor Agent – The beneficiary bank
6. Amount and currency.
7. Creditor agent – The beneficiary bank.
8. Creditor – The beneficiary
9. Creditor account – The beneficiary’s account with the beneficiary bank..
10. Remittance Information – Remitter to beneficiary information e.g. invoices.

```

<CstmrCdtTrfInitn>
  <GrpHdr>
    <MsgId>100003110</MsgId>
    <CreDtTm>2023-06-15T13:16:32</CreDtTm>
    <NbOfTxs>2</NbOfTxs>
    <CtrlSum>153086.00</CtrlSum>
    <InitgPty>
      <Nm>SAMPLE COMPANY A</Nm>
    </InitgPty>
  </GrpHdr>
  <PmtInf>
    <PmtInfId>1000031211</PmtInfId>
    <PmtMtd>TRF</PmtMtd>
    <NbOfTxs>1</NbOfTxs>
    <CtrlSum>98765.00</CtrlSum>
    <PmtTpInf>
      <ReqdExctnDt>2023-06-15</ReqdExctnDt>
      <Dbtr></Dbtr>
      <DbtrAcct>
      <DbtrAgt>
      <CdtTrfTxInf>
        <PmtInf>
          <PmtInfId>1000031212</PmtInfId>
          <PmtMtd>TRF</PmtMtd>
          <NbOfTxs>1</NbOfTxs>
          <CtrlSum>54321.00</CtrlSum>
          <PmtTpInf>
            <ReqdExctnDt>2023-06-15</ReqdExctnDt>
            <Dbtr></Dbtr>
            <DbtrAcct>
            <DbtrAgt>
            <CdtTrfTxInf>
          </PmtInf>
        </PmtInf>
      </CdtTrfTxInf>
    </PmtInf>
  </CstmrCdtTrfInitn>
  
```

Common components of the pain.001 schema include Parties (Exhibit 7) and payment Identifiers (Exhibit 8):

Exhibit 7 – Parties, both non-bank and bank:

Parties	
Debtor	Account holder – MUFG’s client, Identified by registration;
Debtor Agent	MUFG Bank - Identified by registration with MUFG
Intermediary Agent	Intermediary Bank – When present, identified by bank ID (Fedwire ABA, CHIPS ID, or SWIFT BIC.)
Creditor Agent	Bank – Identified by bank ID (Fedwire ABA, CHIPS ID, or SWIFT BIC.)
Creditor	Beneficiary – Identified by account number, name, address including mandatory Country, City.

Exhibit 8 - Identifiers - For proof and control and communication between debtor and creditor:

ID types	
Group Header - Message ID	Uniquely identifies the file.
Instruction ID	Uniquely identifies each payment within the file.
Category Purpose	Custom reference - Unique ID of the payment shared between debtor and creditor.
Remittance Information – Payment Details	Freeform text. Frequently used for invoices and other information to be shared between debtor and creditor.
Credit Transfer - End to End ID	Not currently supported

The following is a review of the full pain.001 message in its component parts.
 The message components (schema segments) are ordered as they appear within the full schema:

Exhibit 9 – Schema segment 1 - Group Header

Schema segment – Group Header

```

<GrpHdr>
  <MsgId>100003110</MsgId>
  <CreDtTm>2023-06-15T13:16:32</CreDtTm>
  <NbOfTxs>2</NbOfTxs>
  <CtrlSum>153086.00</CtrlSum>
  <InitgPty>
    <Nm>SAMPLE COMPANY A</Nm>
  </InitgPty>
</GrpHdr>
  
```

Group Header is mandatory, appears once per file. It contains common identifying elements to the entire message:

- Include unique message ID for duplicate check.
- Create date of the file.
- Number of transactions in the file.
- Sum of the transaction amounts in the file regardless of currency.
- Initiating Party=Company name as it appears in MUFG Exchange.

Exhibit 10 – Schema segment 2 - Payment Information

Schema Segment – Payment Information

```

<PmtInf>
  <PmtInfId>1000031211</PmtInfId>
  <PmtMtd>TRF</PmtMtd>
  <NbOfTxs>1</NbOfTxs>
  <CtrlSum>98765.00</CtrlSum>
  <PmtTpInf>
    <LclInstrm>
      <Prtry>INTL</Prtry>
    </LclInstrm>
    <CtgyPurp>
      <Prtry>Cust REF</Prtry>
    </CtgyPurp>
  </PmtTpInf>
  <ReqdExctnDt>2023-06-15</ReqdExctnDt>
  
```

Payment Information – Mandatory and Repetitive

- Payment Information is the header to a series of components which collectively create one payment instruction, from Payment Method to Debtor to Creditor and Remittance Information.
- PayMtd is always “TRA” for wires.
- Local Instrument is INTL for International, “Fedwire” for Domestic.
- Category Purpose=Customer reference. Passed with the wire to the beneficiary.
- Execution date - Value date of the debit to the debtor’s account.

Exhibit 11 – Schema segment 3 - Credit Transfer Information

Schema segment – Credit Transfer Information

```

<CdtTrfTxInf>
  <PmtId>
    <InstrId>01-31002000000123</InstrId>
    <EndToEndId>NOTPROVIDED</EndToEndId>
  </PmtId>
  <Amt>
    <InstdAmt Ccy="USD">98765.00</InstdAmt>
  </Amt>
  <ChrgBr>SHAR</ChrgBr>
  
```

Transaction Information

- Instruction ID – Unique transaction ID
- End to End ID – Not currently supported
- Amount & currency (using ISO currency code). International wires may be made in USD and other currencies by specifying the credit currency. Wires with a credit currency different than the account currency will be processed as FX wires.
- Charges – SHAR, DEBT, or CRED.

Exhibit 12 – Schema segment 4 - Debtor, Debtor Account, Debtor Agent

Schema segment – Debtor, Account, Agent

```
<Dbtr></Dbtr>
<DbtrAcct>
  <Id>
    <Othr>
      <Id>3333333333</Id>
    </Othr>
  </Id>
</DbtrAcct>
<DbtrAgt>
  <FinInstnId>
    <BIC>BOTKUS33XXX</BIC>
  </FinInstnId>
</DbtrAgt>
```

Debtor, Debtor Account, Debtor Agent

- Debtor is the MUFG client, account owner. Known to MUFG Exchange based on the company of the user initiating the file import.
- Debit account - Your account with MUFG.

Exhibit 13 - Schema segment 5 – Intermediary Agent

Schema segment – Intermediary Bank

```
<IntrmyAgt1>
  <FinInstnId>
    <ClrSysMmbId>
      <ClrSysId>
        <Cd>ABA</Cd>
      </ClrSysId>
      <MmbId>021000021</MmbId>
    </ClrSysMmbId>
  </FinInstnId>
</IntrmyAgt1>
```

Intermediary Bank (International Wire only)

- Optional segment, use when a payment requires an intermediary bank. Provide an intermediary bank as needed.
- Intermediary banks must be identified by a bank ID and include an ID type. Bank name and address is on file in the system and not required in the instruction.
- Supported identifiers include: For USD, ABA and CHIPS ID/UID; For all currencies, SWIFT BIC.
- ID types are: FW, CHIPS, SWIFT.
- When using a SWIFT BIC as the ID, an 11 character BIC is required. If using a BIC8, add "XXX"

Exhibit 14 - Schema segment 6 – Creditor Agent

Schema segment – Creditor Agent

```
<CdtrAgt>
  <FinInstnId>
    <ClrSysMmbId>
      <ClrSysId>
        <Cd>SWIFT</Cd>
      </ClrSysId>
      <MmbId>BOTKFRP3XXX</MmbId>
    </ClrSysMmbId>
  </FinInstnId>
</CdtrAgt>
```

Creditor Agent (Beneficiary Bank)

- Mandatory party
- Creditor Agents must be identified by a bank ID and include an ID type. Bank name and address is on file in the system and is not required in the instruction.
- Supported identifiers include: For USD, CHIPS ID/UID; For all currencies, SWIFT BIC.
- ID types are: FW, CHIPS, SWIFT.
- When using a SWIFT BIC as the ID, an 11 character BIC is required. If using a BIC8, add "XXX"

Exhibit 15 - Schema segment 7 – Creditor, Creditor Account

Schema segment – Creditor

```
<Cdtr>
  <Nm>Partners</Nm>
  <PstlAdr>
    <TwnNm>Sample Creditor Co</TwnNm>
    <Ctry>FR</Ctry>
    <AdrLine>30, Rue Gonzagga</AdrLine>
    <AdrLine>40105 Dax France</AdrLine>
  </PstlAdr>
</Cdtr>
<CdtrAcct>
  <Id>
    <Othr>
      <Id>FR761009618527</Id>
    </Othr>
  </Id>
  <Prtry>OTHER</Prtry>
</CdtrAcct>
```

Creditor (Beneficiary)

- Required party.
- Address requires City (for international wires) and country (all wires).
- Full address strongly recommended.

Creditor Account

- Required field
- IBANs should be used where required by the Creditor country.
- CLABE should be used for MXN payments to Mexico.
- NZ account number requirements for 15-18 characters.

Exhibit 16 - Schema segment 8 – Remittance Information

Schema segment – Remittance Information

```
<RmtInf>
  <Ustrd>ISA00 00 17026009</Ustrd>
  <Ustrd>6U004010000000010P/G</Ustrd>
  <Ustrd>20/STB200001/BPRC987</Ustrd>
  <Ustrd>20230516/TRN1/N1PR91</Ustrd>
</RmtInf>
```

Remitter Information (Payment Details)

- 4x35 characters of freeform text.
- Sometimes used for purpose of payment, other beneficiary country specific requirements.

PAIN.001 - DATA ELEMENTS

This section describes the available data elements in a pain.001 import file. The list includes all data elements supported (mandatory or optional per MUFG requirements) to specify one or more domestic or international wire transfers.

PAIN.001 - GROUP HEADER - DATA ELEMENTS

Group Header - pain.001 data elements						
No	Field Type	Payment UI Field Name	ISO20022 Data Element	Reqd Option	Max Size	Description
1	Grp Hdr	Message Identification	CstmrCdtTrfInitn\GrpHdr\MsgId	M		Schema mandatory . Suggested content: Unique File/Message ID
2		Creation Date Time	CstmrCdtTrfInitn\GrpHdr\CreDtTm	M		ISO Date format validation e.g.: yyyy-mm-dd.
3		Number Of Transactions	CstmrCdtTrfInitn\GrpHdr\NbOfTxs CstmrCdtTrfInitn\PmtInf\NbOfTx	M		Schema mandatory tag validation. The number of individual transactions contained in the message.
4		Control Sum	CstmrCdtTrfInitn\GrpHdr\CtrlSum CstmrCdtTrfInitn\PmtInf\CtrlSum	O		Schema optional tag validation. Amount validated if present. A hash total of all individual amounts included in the group, irrespective of currencies. CtrlSum is based on: <PmtInf><CdtTrfTxInf><PmtTpInf><Amt><InstdAmt>
5		Initiating Party	CstmrCdtTrfInitn\GrpHdr\InitgPty	M		Schema mandatory tag validation. Include Company Name as it appears in MUFG Exchange.

PAIN.001 - DOMESTIC WIRE - PAYMENT INFORMATION DATA ELEMENTS

Domestic Wire Transfer XML File Import				
	Field	Mandatory Optional	Corresponding ISO Tag Reference	Notes
1	Payment Type	M	CstmrCdtTrfInitn/PmtInf/PmtTpInf/LclInstrm/Prtry	Set to "Fedwire"
2	Transaction/Value Date	M	CstmrCdtTrfInitn/PmtInf/ReqdExctnDt	Format: yyyy-mm-dd
3	Payment Amount	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Amt/InstdAmt	Amount plus 3 alpha character ISO currency code. CCY = "USD". E.g.: <InstdAmt Ccy="USD">3.00</InstdAmt>
4	Customer Reference	O	CstmrCdtTrfInitn\PmtInf\PmtTpInf/CtgyPurp	Up to 16 a/n characters. To be sent with Payment.
5	Debit Account	M	CstmrCdtTrfInitn/PmtInf/DbtrAcct/Id/Othr/Id	Your 10 character account number with MUFG.
6	Debtor Name	O	CstmrCdtTrfInitn/PmtInf/Dbtr/Nm	Note that Debtor name is not required but must match the debit account name as registered in MUFG Exchange if present
7	Beneficiary Name	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Cdtr/Nm	Up to 66 characters.
8	Beneficiary Account Number	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/CdtrAcct/Id/Othr/Id	34 characters maximum.
9	Beneficiary Address Line 1	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Cdtr/PstlAdr/AdrLine	33 character maximum. Full beneficiary address information is optional but preferred.
10	Beneficiary Address Line 2	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Cdtr/PstlAdr/AdrLine	33 character maximum. Full beneficiary address information is optional but preferred.
11	Beneficiary City	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Cdtr/PstlAdr/TwnNm	27 character maximum. Full beneficiary address information is optional but preferred
12	Beneficiary State	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Cdtr/PstlAdr/CtrySubDvsn	2 character code for one of the 50 US states. Full beneficiary address information is optional but preferred
13	Beneficiary Country	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/Cdtr/PstlAdr/Ctry	2 character ISO country code "US".
14	Beneficiary Bank ID Type	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/CdtrAgt/FinInstnId/ClrSysMmbld/ClrSysId/Cd	Set to "FW"
15	Beneficiary Bank Code - Other	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/CdtrAgt/FinInstnId/ClrSysMmbld/Mmbld	Use 9 digit ABA RTNs to identify US Fedwire beneficiary banks.
16	Charges	Do not populate	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/ChrgBr	Defaults to US marketing practice: "SHA".
17	Payment Details Line 1	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/RmtInf/Unstrd	"/Code word/" plus text. Maximum of 35 characters.
18	Payment Details Line 2	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/RmtInf/Unstrd	Maximum of 35 characters
19	Payment Details Line 3	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/RmtInf/Unstrd	Maximum of 35 characters
20	Payment Details Line 4	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/RmtInf/Unstrd	Maximum of 35 characters
21	Bank to Bank Instructions Line 1	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/InstrForCdtrAgt/InstrInf	"/Code word/" plus text. Maximum of 35 characters.
22	Bank to Bank Instructions Line 2	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/InstrForCdtrAgt/InstrInf	Maximum of 33 characters
23	Bank to Bank Instructions Line 3	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/InstrForCdtrAgt/InstrInf	Maximum of 33 characters
24	Bank to Bank Instructions Line 4	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf/InstrForCdtrAgt/InstrInf	Maximum of 33 characters

PAIN.001 - INTERNATIONAL WIRE - PAYMENT INFORMATION DATA ELEMENTS

International Wire Transfer XML File Import			
Field	Mandatory Optional	Corresponding ISO Tag Reference	Notes
1	M	CstmrCdtTrfInitn/PmtInf/PmtTpInf /LclInstrm/Prtry	INTL
2	M	CstmrCdtTrfInitn/PmtInf/ReqdExctnDt	Format: yyyy-mm-dd
3	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /Amt/InstdAmt	Amount plus 3 alpha character ISO currency code. CCY = "USD", "JPY", "EUR", etc. E.g.: <InstdAmt Ccy="USD">3.00</InstdAmt>
4	O	CstmrCdtTrfInitn\PmtInf\PmtTpInf/ CtgPurp	Up to 16 a/n characters. To be sent with Payment.
5	O	CstmrCdtTrfInitn/PmtInf/DbtrAcct/Id /Othr/Id	Your 10 character account number with MUFG.
6	O	CstmrCdtTrfInitn/PmtInf/Dbtr/Nm	If provided this data element must equal debtor account name as specified in MUFG Exchange .
7	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /Cdr/Nm	Up to 66 characters.
8	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /CdrAcct/Id/Othr/Id	Beneficiary account number must be included in using the "Other" account number format type for all account number formats including IBAN format.
9	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /Cdr/PstAdr/AdrLine	33 character maximum.
10	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /Cdr/PstAdr/AdrLine	33 character maximum.
11	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /Cdr/PstAdr/TwnNm	30 characters maximum.
12	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /Cdr/PstAdr/Ctry	2 character ISO country code. E.g. "JP" for Japan, ""UK" for United Kingdom.
13	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /CdrAgt/FinInstnld/Nm	35 character maximum,
14	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf / CdrAgt/FinInstnld/ClrSysId/Cd	"SWIFT" where SWIFT BIC is used, "Other" where "CHIPS ID/UID" is used.
15	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /CdrAgt/FinInstnld/ClrSysMmbld/ Mmbld	SWIFT BIC or CHIPS ID/UID. SWIFT BIC must be 11 characters. When using an 8 character BIC, add "XXX". E.g. CHASUS33 becomes CHASUS33XXX.
16	M	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /ChrgBr	Use "SHA", "BEN", or "OUR".
17	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /RmtInf/Unstrd	"/Code word/" plus text. Maximum of 35 characters. Include Purpose of Payment Code and description where required.
18	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /RmtInf/Unstrd	Maximum of 35 characters
19	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /RmtInf/Unstrd	Maximum of 35 characters
20	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /RmtInf/Unstrd	Maximum of 35 characters
21	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf / IntrmyAgt1/FinInstnld/ClrSysMmbld/ ClrSysId/CD	Enter Bank ID Type: ABA, CHIPS, SWIFT. For USD: Fedwire ABA or CHIPS ID/UID accepted. For all currencies, SWIFT BIC11 accepted. "SWIFT" where SWIFT BIC is used, "Other" where "CHIPS ID/UID" or Fedwire ABA is used.
22	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /IntrmyAgt1/FinInstnld/ClrSysMmbld/ Mmbld	Enter Bank ID. For USD: Fedwire ABA or CHIPS ID/UID accepted. For all currencies, SWIFT BIC11 accepted
23	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /InstrForCdrAgt/InstrInf	"/Code word/" plus text. Maximum of 35 characters.
24	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /InstrForCdrAgt/InstrInf	Maximum of 33 characters
25	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /InstrForCdrAgt/InstrInf	Maximum of 33 characters
26	O	CstmrCdtTrfInitn/PmtInf/CdtTrfTxInf /InstrForCdrAgt/InstrInf	Maximum of 33 characters

SAMPLE SCHEMA – TESTING NOTES

A sample domestic wire schema (message) and a sample international wire schema have been provided as examples of properly formatted import files. The files, after data modification, can be used to test the file import process during development of your own pain.001 file import files. Steps to use these sample files with files import:

- Copy and paste each message to a text editor or xml editor
- Revise each file to replace the values present in validated fields with data that reflects your configuration and other characteristics: Value dates should be today, debit account number should be present in the system and enabled for the transaction type to be imported, Fedwire ABA's and SWIFT BICs used in testing must be setup in the system, Initiating party name must be present and equal to your company name as recorded in MUFG Exchange.

Once the test files have been modified to add live data (the minimum necessary to pass system validations) they are ready for File Import using the following steps:

- Select File Import from the Payments List View.
- Based on the payment type, select the Domestic wire or International wire file import function
- The file import function supports test or production options. Choose the test import option until you are ready to go to production.
- Choose File to select the test file to be imported.
- Click on the File Import option to initiate file import.
- Once File Import has concluded, File Import History may be refreshed and the result of the import reviewed.

When testing new files multiple cycles of test run and file repair will likely be required before you are ready to go to full production.

Additional testing comments are provided earlier in this document.

APPENDIX A – SAMPLE SCHEMA – DOMESTIC WIRE TRANSFER

A pain.001 with one domestic wire.

```
<?xml version="1.0" encoding="UTF-8"?>
<Document xmlns="urn:iso:std:iso:20022:tech:xsd:pain.001.001.03" xmlns:xsi="http://www.w3.org/2001/
XMLSchema-instance">
  <CstmrCdtTrfInitt>
    <GrpHdr>
      <MsgId>423456</MsgId>
      <CreDtTm>2023-06-15T10:36:01.271Z</CreDtTm>
      <NbOfTx>1</NbOfTx>
      <CtrlSum>300.00</CtrlSum>
      <InittPty>
        <Nm>SAMPLE DEBTOR CO</Nm>
      </InittPty>
    </GrpHdr>
    <PmtInf>
      <PmtInfId>123456789</PmtInfId>
      <PmtMtd>TRF</PmtMtd>
      <NbOfTx>1</NbOfTx>
      <CtrlSum>400.00</CtrlSum>
      <PmtPlnInf>
        <LclInstrm>
          <Prtry>FEDWIRE</Prtry>
        </LclInstrm>
        <CtgyPurp>
          <Prtry>BILL PAYMENT</Prtry>
        </CtgyPurp>
      </PmtPlnInf>
      <ReqdExctnDt>2023-06-15</ReqdExctnDt>
      <Dbtr></Dbtr>
      <DbtrAcct>
        <Id>
          <Othr>
            <Id>3333333333</Id>
          </Othr>
        </Id>
      </DbtrAcct>
      <DbtrAgt>
        <FinInstnId></FinInstnId>
      </DbtrAgt>
      <CdtTrfTxInf>
        <PmtId>
          <EndToEndId>Not Mapped</EndToEndId>
        </PmtId>
        <Amt>
          <InstdAmt Ccy="USD">400.00</InstdAmt>
        </Amt>
        <CdtrAgt>
          <FinInstnId>
            <ClrSysMmbld>
              <Mmbld>021000021</Mmbld>
            </ClrSysMmbld>
          </FinInstnId>
        </CdtrAgt>
      </CdtTrfTxInf>
    </PmtInf>
  </CstmrCdtTrfInitt>
</Document>
```

```
<Nm>SAMPLE CREDITOR DO</Nm>
<PstlAdr>
  <TwnNm>Sample City</TwnNm>
  <CtrySubDvsn>NY</CtrySubDvsn>
  <Ctry>US</Ctry>
  <AdrLine>11111 Sample Street</AdrLine>
  <AdrLine>Sample Building 5fl</AdrLine>
</PstlAdr>
</Cdtr>
<CdtrAcct>
  <Id>
    <Othr>
      <Id>10987564</Id>
    </Othr>
  </Id>
</CdtrAcct>
<RmtInf>
  <Ustrd>4 lines by 35 characters max</Ustrd>
  <Ustrd>4 lines by 35 characters max</Ustrd>
  <Ustrd>4 lines by 35 characters max</Ustrd>
  <Ustrd>4 lines by 35 characters max</Ustrd>
</RmtInf>
</CdtTrfTxInf>
</PmtInf>
</CstmrCdtTrfIntr>
</Document>
```

APPENDIX B – SAMPLE SCHEMA – INTERNATIONAL WIRE TRANSFER

A pain.001 with two international wires.

```
<?xml version="1.0" encoding="UTF-8"?>
<Document xmlns="urn:iso:std:iso:20022:tech:xsd:pain.001.001.03" xmlns:xsi="http://www.w3.org/2001/
XMLSchema-instance">
  <CstmrCdtTrfInitt>
    <GrpHdr>
      <Msgld>100003110</Msgld>
      <CreDtTm>2023-06-15T13:16:32</CreDtTm>
      <NbOfTx>2</NbOfTx>
      <CtrlSum>153086.00</CtrlSum>
      <InitgPty>
        <Nm>SAMPLE DEBTOR COMPANY</Nm>
      </InitgPty>
    </GrpHdr>
    <PmtInf>
      <PmtInfId>1000031211</PmtInfId>
      <PmtMtd>TRF</PmtMtd>
      <NbOfTx>1</NbOfTx>
      <CtrlSum>98765.00</CtrlSum>
      <PmtTpInf>
        <LclInstrm>
          <Prtry>INTL</Prtry>
        </LclInstrm>
        <CtgyPurp>
          <Prtry>Cust REF</Prtry>
        </CtgyPurp>
      </PmtTpInf>
      <ReqdExctnDt>2023-06-15</ReqdExctnDt>
      <Dbtr></Dbtr>
      <DbtrAcct>
        <Id>
          <Othr>
            <Id>3333333333</Id>
          </Othr>
        </Id>
      </DbtrAcct>
      <DbtrAgt>
        <FinInstnId>
          <BIC>BOTKUS33XXX</BIC>
        </FinInstnId>
      </DbtrAgt>
      <CdtTrfTxInf>
        <PmtId>
          <InstrId>01-31002000000123</InstrId>
          <EndToEndId> </EndToEndId>
        </PmtId>
        <Amt>
          <InstdAmt Ccy="USD">98765.00</InstdAmt>
        </Amt>
        <ChrgBr>SHAR</ChrgBr>
        <IntrmyAgt1>
          <FinInstnId>
            <ClrSysMmbld>
              <ClrSysId>
                <Cd>ABA</Cd>
              </ClrSysId>
              <Mmbld>021000021</Mmbld>
            </ClrSysMmbld>
          </FinInstnId>
        </IntrmyAgt1>
        <CdtrAgt>
```

```

        <FinInstnId>
            <ClrSysMmbld>
            <ClrSysId>
            <Cd>SWIFT</Cd>
            </ClrSysId>
            <Mmbld>BOTKFRPXXXX</Mmbld>
            </ClrSysMmbld>
        </FinInstnId>
    </CdrAgt>
    <Cdr>
        <Nm> SAMPLE CREDITOR CO A </Nm>
        <PstlAdr>
            <TwnNm>DAX</TwnNm>
            <Ctry>FR</Ctry>
            <AdrLine>30, RUE GONZAGGA</AdrLine>
            <AdrLine>40105</AdrLine>
        </PstlAdr>
    </Cdr>
    <CdrAcct>
        <Id>
            <Othr>
                <Id>FR7610011111</Id>
            </Othr>
        </Id>
        <Tp>
            <Prtry>OTHER</Prtry>
        </Tp>
    </CdrAcct>
    <RmtInf>
        <Ustrd>ISA00 00 17026009</Ustrd>
        <Ustrd>6U00401000000001</Ustrd>
        <Ustrd>20/ST8200001/BPRC</Ustrd>
        <Ustrd>20230516/TRN1/N1P</Ustrd>
    </RmtInf>
</CdtTrfTxInf>
<PmtInf>
<PmtInf>
    <PmtInfId>1000031212</PmtInfId>
    <PmtMtd>TRF</PmtMtd>
    <NbOfTxs>1</NbOfTxs>
    <CtrlSum>54321.00</CtrlSum>
    <PmtTpInf>
        <LclInstrm>
            <Prtry>INTL</Prtry>
        </LclInstrm>
        <CtgyPurp>
            <Prtry>Cust REF</Prtry>
        </CtgyPurp>
    </PmtTpInf>
    <ReqdExctnDt>2023-06-15</ReqdExctnDt>
    <Dbtr></Dbtr>
    <DbtrAcct>
        <Id>
            <Othr>
                <Id>3333333333</Id>
            </Othr>
        </Id>
    </DbtrAcct>
    <DbtrAgt>
        <FinInstnId>
            <BIC>BOTKUS33XXX</BIC>
        </FinInstnId>
    </DbtrAgt>
    <CdtTrfTxInf>
        <PmtId>
            <InstrId>01-310020000005</InstrId>
            <EndToEndId> </EndToEndId>
        </PmtId>
        <Amt>

```

```

        <InstdAmt Ccy="USD">54321.00</InstdAmt>
    </Amt>
    <ChrgBr>SHAR</ChrgBr>
    <CdtrAgt>
        <FinInstnId>
            <ClrSysMmbld>
                <ClrSysId>
                    <Cd>SWIFT</Cd>
                </ClrSysId>
                <Mmbld>BOTKSGSXXX</Mmbld>
            </ClrSysMmbld>
        </FinInstnId>
    </CdtrAgt>
    <Cdtr>
        <Nm>Sample Creditor Co B</Nm>
        <PstlAdr>
            <TwnNm>SINGAPORE</TwnNm>
            <Ctry>SG</Ctry>
            <AdrLine>4 TUAS DRIVE </AdrLine>
            <AdrLine>637048</AdrLine>
        </PstlAdr>
    </Cdtr>
    <CdtrAcct>
        <Id>
            <Othr>
                <Id>1111111111</Id>
            </Othr>
        </Id>
        <Tp>
            <Prtry>OTHER</Prtry>
        </Tp>
    </CdtrAcct>
    <RmtInf>
        <Ustrd>ISA00 00 17026009</Ustrd>
        <Ustrd>6U00401000000002</Ustrd>
        <Ustrd>20/ST8200002/BPRC</Ustrd>
        <Ustrd>20230516/TRN1/N1A</Ustrd>
    </RmtInf>
</CdtTrfTxInf>
</PmtInf>
</CstmrCdtTrfInittn>
</Document>

```

APPENDIX C – PAYMENT DETAIL REPORTS

The following Payment Details Reports show the results of file import to Payment Center for two of the payment instructions in the sample schema.

Domestic Wire – With Fedwire ABA as the Creditor Agent ID

PAYMENT ID: 2839		DEBIT ACCOUNT		BENEFICIARY	
Payment Type	Wire - Domestic	Number	x3333	Name	SAMPLE CREDITOR CO
Status	Entered	Name	Modified Payables Account	Address 1	11111 Sample Street
Entry Method	Imported	Type	Checking	City	Sample City
File Name	Test-Domestic_ISO_file import_test-06-15-23- RB_RP.txt	Bank	MUFG Bank NY Branch	State	NY
Value Date	06/15/2023			Country	US
Tran Date	06/15/2023			Account	x7564
Credit Amount	400.00 USD	ORIGINATOR INFORMATION		BENEFICIARY BANK	
Debit Amount	400.00 USD	Name	SAMPLE DEBTOR CO	Account Type	Other
Exchange Rate	1	ID	x3333	Bank Code	021000021
Customer Ref	BILL PAYMENT	Type	DDA	Bank	JPMORGAN CHASE BANK, NA
File Import ID	3746LD061520231653301 64	Country	US	City	NEW YORK
Tnum	13479			Country	US
PAYMENT DETAILS					
4 lines by 35 characters max					
4 lines by 35 characters max					
4 lines by 35 characters max					
4 lines by 35 characters max					
AUDIT INFORMATION					
	Timestamp	User ID	Company		
ENTERED	06/15/2023 12:53:32 PM	USERNAMEONE	344383		

International Wire – With Intermediary Bank and Fedwire ABA and SWIFT BIC as the bank IDs.

PAYMENT ID: 2845		DEBIT ACCOUNT		BENEFICIARY	
Payment Type	Wire - International	Number	x3333	Name	SAMPLE CREDITOR CO A
Status	Entered	Name	Payables Account	Address 1	30, RUE GONZAGGA
Entry Method	Imported	Type	Checking	Address 2	40105
File Name	International_WIRE_multipa yment	Bank	MUFG Bank NY Branch	City	Dax
Pre-Advice	No			Country	FR
Value Date	06/16/2023	ORIGINATOR INFORMATION		Account	x1111
Tran Date	06/16/2023	Name	SAMPLE DEBTOR CO	BENEFICIARY BANK	
Credit Amount	98,765.00 USD	ID	x3333	Account Type	OTHER
Debit Amount	98,765.00 USD	Type	CUST	Bank Code	BOTKFRPXXXX
Exchange Rate	1	Country	US	Bank	MUFG BANK, LTD. PARIS BRANCH
Customer Ref	Cust REF			Address 1	IMMEUBLE LE CENTORIAL
File Import ID	3755LD061620231644571 36			Address 2	16-18 RUE DU QUATRE SEPTEMBRE
Tnum	13495			City	PARIS
Charges	SHA			Country	FR
PAYMENT DETAILS					
ISA00 00 17026009					
6U004010000000010P/GSRA026009632100					
20/ST8200001/BPRC98765CACHCTX1Volvo					
20230516/TRN1/N1PR91/N1PEPartners/E					
INTERMEDIARY BANK					
		Name	JPMORGAN CHASE BANK, NA		
		ID	021000021		
		Type	ABA		
AUDIT INFORMATION					
	Timestamp	User ID	Company		
ENTERED	06/16/2023 12:45:09 PM	USERNAMEONE	344383		

