



# FUNDS TRANSFER MESSAGE

Technical - Overview

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# AGENDA



- Overview
- Structure Types
- Logical Fields
- Payment Data Object (aka PDO)
- Samples



**Standard interfaces were defined based on the Fndt Message structure to streamline the process of integrating GPP with various existing systems in a bank or financial institution”**

Fndt Message Format – Technical Guide

# FNDTMSG XML SECTIONS

- **<FndtMsg>**
  - **<Header>** general identifying attributes
  - **<Msg>** transaction message and extension
    - **<Pmnt>** payment quotes the transaction (ISO based **pain**, **pacs** or SWIFT within the GPP proprietary XML structure)
    - **<Extn>** GPP proprietary transaction attributes
      - **<MsgFees>** , **<MsgNotes>**, **<MsgRates>**, etc.
  - **<OrigMsg>** original message (ISO based **pain**, **pacs** or SWIFT within the GPP proprietary XML structure)
  - **<ResponseDetails>** applicable for Interface Responses

Note: The Inclusion and exclusion of specific tags and/or sub-tees of the full FNDT Message per such specific usage is done using system configuration in the XML\_FORMAT\_TYPE\_RELATIONS table

# FNDT MSG BATCH XML SECTIONS



- **<FndtHeader>** includes context information and credentials
- **<BatchHeader>** contains the pain message **<GrpHdr>** element
- **<PmntTxInfo>** transaction information that can include one debit (in the header) with multiple credit transfers that logically correspond to the **/Document/CstmrCdtTrfInitn/PmtInf**.

Note: This section can be repeated multiple times.

- **<PmntHeader>** one debit wrapper that contains a **/Document/CstmrCdtTrfInitn/PmtInf** element, but excludes the **<CdtTrfTxInf>** elements
- **<TxInf>** multiple credits section that contains a list of FndtMsg elements, one for each credit **<CdtTrfTxInf>** element.

# FNDT MESSAGE - EXAMPLES



Funds Transfer Message with **pain.001** as **<Pmnt>**



XML Document

Funds Transfer Message with **SWIFT** as **<Pmnt>**



XML Document

Full Funds Transfer Message with batch tags



XML Document

# FNDT MSG - HEADER



**<contextLocalName>** *optional* - adds regarding the specific usage, but using the financial institution system terminology naming, in case such a local name exists and is required for the identification on the financial institution side

**<credentials>** User ID and Role its GPP credentials when required

**<D\_SKIP\_PERSIST\_ON\_ERROR>** indication whether to store the transaction details where an error or errors were found.

**<Workflow>** defined for mass processing. The valid values are Template, File or Swift

**<P\_MID>** is a MID of the related message for which this request/response was invoked. Can be added to header to uniquely identify the transaction related to the request/response. Can be used for matching between request and response

**<deliveryTimestamp>** The Timestamp when the request/response was created

**<P\_INIT\_SRC\_ID>** is a ID of the source system initiating the request/response

**<contextName>** *optional* - adds information regarding the specific usage.

*Example:* Balance Inquiry is set for **Fndt Message** send in request to Balance Inquiry interface.

```
<Header>
  <contextName>String</contextName>
  <contextLocalName>String</contextLocalName>
  <credentials>
    <UserID>String</UserID>
    <Role>String</Role>
  </credentials>
  <D_SKIP_PERSIST_ON_ERROR>false</D_SKIP_PERSIST_ON_ERROR>
  <Workflow>String</Workflow>
  <P_MID forCreation="false">String</P_MID>
  <deliveryTimestamp>2001-12-17T09:30:47-05:00</deliveryTimestamp>
  <P_INIT_SRC_ID>String</P_INIT_SRC_ID>
</Header>
```

**<EventID>** is a unique 16 character event ID generated for each interface request This ID is used to identify a resent request (**<EventID>** is as in the original request), from a new request issued due to force or retry (**<EventID>** quotes a new value).

This ID is generated only for interface requests that are configured to be stored in **MESSAGE\_EXTERNAL\_INTERACTION**, and only for those for which the **INTERFACE\_TYPES.EVENT\_ID\_GENERATION** is configured with 1 in the **INTERFACE\_TYPE** entry defined for this request

# FNDT MSG - EXT



<b>MsgFees</b>	Message Fees. Multiple transaction fee details as computed by GPP.
<b>MsgNotes*</b>	Message Notes. Operator internal notes
<b>MsgRates</b>	Message Rates. Multiple transaction contract/dealer rate details used for currency conversion for this transaction, if FX was involved in its processing.
<b>Advising</b>	Advising. Multiple transaction advices details' as created by GPP
<b>MsgErrors</b>	Message Errors. Multiple transaction processing errors that occurred and were logged during processing
<b>AuditTrail</b>	Audit Trail. Multiple transaction processing audit lines logged during processing
<b>PostingRestrictions</b>	Posting Restrictions. Multiple posting restrictions entries logged per this transaction
<b>SpecialInstructions</b>	Special Instructions. Multiple special instructions entries caught per this transaction
<b>ProcessingPersistentInfo*</b>	Processing Persistent Info. Transaction derived attributes relevant to the transaction information
<b>XMLPersistentInfo*</b>	XML Persistent Info. Relevant transaction persistent data stored in XML format, either original as received or enriched for sending out, (as opposed to MINF columns for the information in ProcessingPersistentInfo).
<b>CutoffInfo*</b>	Cut-off Info. Cutoff entries associated with this transaction - latest time/s for the transaction to be processed
<b>OperationalSection*</b>	Operational Section. Action attributes to perform on transactions by services.
<b>BalanceCheckInf</b>	Balance Check Information. Multiple entries with balance information for the transaction (on different accounts and per different debit type – Principal or Fee)
<b>Memopost</b>	Memo Post (aka Posting Information – Older Design) not in use in Roadmap version
<b>MsgPosting</b>	Message Posting (aka Posting Information – New Design). Multiple posting entries calculated per this transaction.
<b>UserDefinedFields*</b>	User Defined Fields aka custom message fields. System level and client/financial institution level defined fields.
<b>InterfacesSection</b>	Interface specific elements.
<b>QaInfo</b>	Internal QA department information.
<b>WsResult</b>	Web Services Result. GPP Web services result information.
<b>ProcessingTransientInfo*</b>	Processing Transient Info. Internal transient or temporary transaction attributes.
<b>Monitors*</b>	Monitors. User/Services/Interface tracking monitors.
<b>ReferenceData*</b>	Reference Data. Transaction-related profile reference data.
<b>BinrayContent</b>	Binary Content. Any type of an image that may be associated with the transaction such as fax, agreement etc. The image is deconstructed into base 64 encoding (so that it will have a character presentation). It is also possible to reconstruct it into the original image file when required. Note that mimeType element describes the targeted image format (for example TIFF, JPEG)



# USER DEFINED FIELDS – CUSTOM FIELDS



```
<FndtMsg xmlns="http://fundtech.com/SCL/CommonTypes">
  <Msg>
    <Pmnt>
      <Document xmlns="urn:iso:std:iso:20022:tech:xsd:pacs.008.001.02"/>
    </Pmnt>
    <Extn>
      <UserDefinedFields>
        <System>
          <PMT_CAT>Urgent</PMT_CAT>
        </System>
        <Customer code="D-36789242">
          <REF_NUM> AB-1223</REF_NUM>
        </Customer>
      </UserDefinedFields>
    </Extn>
  </Msg>
</FndtMsg>
```

➤ **System:** System-wide user-defined fields section encapsulated in a System element

➤ **Office:** Financial institution user-defined fields section encapsulated in an Office element

*Note: The Financial Institution's code value must be provided in the parent Office code attribute.*

➤ **Customer :** Financial institution clients' user-defined fields section encapsulated in a Customer element

*Note: The transaction's proprietary ID value element must be provided in the parent Customer code attribute.*

# TRANSACTION ATTRIBUTE FIELDS



Prefix	Meaning	Explanation
<b>T_</b>	Tree	Place holder in the tree view that hold the relevant associated information. <i>Example: T_PARTIES holds all of the transaction parties</i>
<b>X_</b>	XML	ISO information that is stored in an XML structure in the XML_MSG
<b>OX_</b>	Original XML	Copy of the originally received XML transaction ( ) information that is stored in an XML structure in ORIG_XML_MSG
<b>OC_</b>	Original Copy of XML field	Prefix used if there is more than one way to receive specific data. <i>Example: OX_CDTR_AGT_BIC_1OR or OX_CDTR_AGT_BIC_2AND. GPP copies the data into OC_CDTR_AGT_BIC to facilitate determining whether creditor agent BIC was provided or not. Relevant only for originally received attributes.</i>
<b>P_</b>	Process	GPP extension field for transaction data that cannot be placed in the ISO standard format. <i>Examples of commonly used attributes: P_MID, P_OFFICE.</i>
<b>F_</b>	GPP derived transaction attribute	Derived attribute that are taken from the static data profile that is associated with transaction details. <i>Examples: F_CDT_MOP_NM is the credit MOP name derived from the credit MOP value. F_MOP_NM is associated with the debit MOP.</i>
<b>D_</b>	Derived	Derived attributes that are calculated 'on the fly' while the GPP service is calculating the information. Derived fields cannot be used as a condition in business rules as they are not stored.
<b>MU</b> <b>MF</b> <b>MI</b>	Monitor User Monitor Flow (service) Monitor Interface	User monitors that track the user action over the user interface, such as, forcing a transaction out of the insufficient funds queue (filed P_USER_STATE_MONITOR with MU_ prefix ) Workflow monitors – internal monitors in the code that track the transaction processing flow (P_SERVICE_STATE_MONITOR with MF_ prefix ) Interface monitors that monitor interface interactions (P_INTERFACE_STATE_MONITOR with MI_ prefix )

# Thank you

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