

Fintech DevCon ISO 8583 Specification

This specification defines a simplified ISO 8583 message format for educational and demonstration purposes at [Fintech DevCon](#).

Message Types

0100 - Authorization Request

Field	Element Name	Req/ Opt	Format	Length	Description
0	Message Type Indicator	R	ANS	4	Fixed: "0100"
1	Bitmap	R	B	8	Presence indicator
2	Primary Account Number (PAN)	R	ANS	16	Card number
3	Amount	R	N	6	Transaction amount
4	Transmission Date & Time	R	ANS	20	Message timestamp
7	Currency	R	ANS	3	Currency code
8	Card Verification Value (CVV)	O	ANS	4	Security code
9		R	ANS	4	Card expiry

Field	Element Name	Req/ Opt	Format	Length	Description
	Card Expiration Date				
10	Acceptor Information	O	COMP	VAR	Merchant details
11	Systems Trace Audit Number (STAN)	R	ANS	6	Trace number

0110 - Authorization Response

Field	Element Name	Req/ Opt	Format	Length	Description
0	Message Type Indicator	R	ANS	4	Fixed: "0110"
1	Bitmap	R	B	8	Presence indicator
2	Primary Account Number (PAN)	R	ANS	16	Card number
3	Amount	R	N	6	Transaction amount
4	Transmission Date & Time	R	ANS	20	Message timestamp
5	Approval Code	O	ANS	2	Authorization result

Field	Element Name	Req/ Opt	Format	Length	Description
6	Authorization Code	O	ANS	6	Issuer auth code
7	Currency	R	ANS	3	Currency code
9	Card Expiration Date	O	ANS	4	Card expiry
10	Acceptor Information	O	COMP	VAR	Merchant details
11	Systems Trace Audit Number (STAN)	R	ANS	6	Trace number

Legend: - R = Required, O = Optional - ANS = Alphanumeric and Special, N = Numeric, B = Binary, COMP = Composite - VAR = Variable length

Data Elements

Field 0 - Message Type Indicator

- **Type:** String
- **Length:** 4 characters (fixed)
- **Encoding:** ASCII
- **Description:** Identifies the message type and function

Field 1 - Bitmap

- **Type:** Bitmap
- **Length:** 8 bytes (fixed)
- **Encoding:** Binary
- **Description:** Indicates which data elements are present in the message

Field 2 - Primary Account Number (PAN)

- **Type:** String
- **Length:** 16 characters (fixed)

- **Encoding:** ASCII
- **Description:** The primary account number associated with the card

Field 3 - Amount

- **Type:** Numeric
- **Length:** 6 digits (fixed)
- **Encoding:** ASCII
- **Padding:** Left-padded with zeros
- **Description:** Transaction amount

Field 4 - Transmission Date & Time

- **Type:** String
- **Length:** 20 characters (fixed)
- **Encoding:** ASCII
- **Description:** Date and time when the message was transmitted

Field 5 - Approval Code

- **Type:** String
- **Length:** 2 characters (fixed)
- **Encoding:** ASCII
- **Description:** Authorization approval code

Field 6 - Authorization Code

- **Type:** String
- **Length:** 6 characters (fixed)
- **Encoding:** ASCII
- **Description:** Authorization code from the issuer

Field 7 - Currency

- **Type:** String
- **Length:** 3 characters (fixed)
- **Encoding:** ASCII
- **Description:** Transaction currency code

Field 8 - Card Verification Value (CVV)

- **Type:** String
- **Length:** 4 characters (fixed)
- **Encoding:** ASCII
- **Description:** Card verification value for security

Field 9 - Card Expiration Date

- **Type:** String
- **Length:** 4 characters (fixed)

- **Encoding:** ASCII
- **Description:** Card expiration date

Field 10 - Acceptor Information

- **Type:** Composite
- **Length:** Variable (up to 999 characters)
- **Encoding:** ASCII
- **Length Prefix:** LLL (3-digit length indicator)
- **Tag Format:** 2-digit ASCII tags, sorted by integer value
- **Description:** Information about the merchant/acceptor

Subfields:

Tag 01 - Merchant Name

- **Type:** String
- **Length:** Variable (up to 99 characters)
- **Encoding:** ASCII
- **Length Prefix:** LL (2-digit length indicator)
- **Description:** Name of the merchant

Tag 02 - Merchant Category Code (MCC)

- **Type:** String
- **Length:** 4 characters (fixed)
- **Encoding:** ASCII
- **Description:** Merchant category classification code

Tag 03 - Merchant Postal Code

- **Type:** String
- **Length:** Variable (up to 10 characters)
- **Encoding:** ASCII
- **Length Prefix:** LL (2-digit length indicator)
- **Description:** Merchant's postal/ZIP code

Tag 04 - Merchant Website

- **Type:** String
- **Length:** Variable (up to 299 characters)
- **Encoding:** ASCII
- **Length Prefix:** LLL (3-digit length indicator)
- **Description:** Merchant's website URL

Field 11 - Systems Trace Audit Number (STAN)

- **Type:** String
- **Length:** 6 characters (fixed)
- **Encoding:** ASCII

- **Description:** Unique sequence number for transaction tracking

Encoding Notes

- **ASCII:** Standard ASCII character encoding
- **Binary:** Raw binary data encoding
- **Fixed Length:** Field has a predetermined, unchanging length
- **Variable Length:** Field length is indicated by a length prefix
 - **LL:** 2-digit decimal length indicator
 - **LLL:** 3-digit decimal length indicator