MMI Optimization Status - Participant

MMI Finality Through Optimization ISO 15022 Message Layouts

DTCC Controlled: Non-Confidential

Document History

09/05/15	Added three new status values to the Status code tag (:25D) in "Mandatory Subsequence A2 - Status." These statuses are for transactions pending an MMI funding decision on an Acronym. The new statuses can be subscribed to via the IMS Notification profile.
12/18/15	Added documentation for the DTC proprietary ISO header message. This is an alternative to the SWIFT ISO header message.

Standard ISO Output Message Blocks

This DTC proprietary ISO header message is an alternative to the SWIFT ISO header message.

All ISO messages destined for DTC must contain the following 4 message blocks:

- Basic Header Block - Contains the general information identifying the message and some additional control information.
- Application Header Block - Contains information specific to the application and is required for messages exchanged between users or between the system and users.
- User Header Block - Contains user reference information.
- Text Block - Contains the actual data being transmitted.

Key: **M** = Mandatory, O = Optional

Basic Header Block

M/O	Tag	Length	Field Description	Example	Description
M	1	1	Starting Block Delimiter	{	The character { is used to indicate the beginning of a block
M	2	2	Block Identifier	1:	Must contain a value of "1:"
M	4	1	Message Identifier	F	Must contain a value of "F"
M	5	2	Protocol Identifier	01	Must contain a value of "01"
M	7	8	Recipient's Bank/Firm Code	12345678	Recipient's Bank Identifier Code (BIC) or the user's Participant ID (If the recipient is a Group User, this ID must be connected in DTCC's Group User eligibility table)
M	15	1	Logical Terminal	X	Identifies terminal type

M/O	Tag	Length	Field Description	Example	Description
M	16	3	Branch Code	123	Identifies branch
M	19	4	Session Number	0000	A 4 digit value assigned by a DTCC subsidiary. Its default is 0000
M	23	6	Sequence Number	000000	A 6 digit value assigned by a DTCC subsidiary. Its default is 000000
M	29	1	Ending Block Delimiter	}	The character } is used to indicate the end of a block

Application Header Block

M/O	Tag	Length	Field Description	Example	Description
M	30	1	Starting Block Delimiter	{	The character { is used to indicate the beginning of a block
M	31	2	Block Identifier	2:	Must contain a value of "2:"
M	33	1	Input/ Output Identifier	O	Must contain a value of "O"
M	34	3	ISO Message Type	548	Must contain a valid 3 digit ISO Message Type ID
M	37	4	Receipt Time	HHMM	Format is: HHMM The time the message was received by the receiving DTCC subsidiary

M/O	Tag	Length	Field Description	Example	Description
M	41	6	Receipt Date	YYMMDD	Format is: YYMMDD The date the message was received by the receiving DTCC subsidiary
M	47	8	Submitter's Bank/Firm Code	12345678	Submitter's Bank Identifier Code (BIC) or the Submitter's Participant ID (the same number passed to DTC in the ISOINP message)
M	55	1	Logical Terminal	x	Identifies terminal type. "A" for Swift messages, "X" for non-Swift messages
M	56	3	Branch Code		Always Spaces
M	59	4	Session Number	1234	A 4 digit value assigned by the submitter. The session number is set to 0000 if it is not passed by a DTCC subsidiary
M	63	6	Sequence Number	123456	A 6 digit value assigned by the submitter. The sequence number is set to 000000 if it is not passed by a DTCC subsidiary
M	69	6	Transmission Date	YYMMDD	Format is: YYMMDD The date the message was sent from a DTCC subsidiary to the recipient
M	75	4	Transmission Time	HHMM	Format is: HHMM The time the message was sent from a DTCC subsidiary to the recipient

M/O	Tag	Length	Field Description	Example	Description
M	79	1	Message Priority	N	Must contain a value of “N”
M	80	1	Ending Block Delimiter	}	The character } is used to indicate the end of a block

User Header Block

M/O	Tag	Length	Field Description	Example	Description
M	81	1	Starting Block Delimiter	{	The character { is used to indicate the beginning of a block
M	82	2	Block Identifier	3:	Must contain a value of "3:"
M	84	5	Version Number Tag	{113:	Must contain a value of "{113:"
M	89	4	Version Number	1234	Must contain a value of "0301" for Settlement ISO Messages Must contain a value of "0701" for EuroCCP ISO Messages
M	93	1	Ending Delimiter of Version Number Tag	}	The character } is used to indicate the end of the tag
M	94	5	Submitter's Reference Key Tag	{108:	Must contain a value of "{108:"

M/O	Tag	Length	Field Description	Example	Description
M	99	16	Submitter's Reference Key	XXXXXXXXX XXXXXXX	Unique key created by the submitter to identify the transaction Format: 16x
M	115	1	Ending Delimiter of Submitter's Reference Key Tag	}	The character } is used to indicate the end of the tag
M	116	5	Tag for expanded time	{115:	Must contain value of "{115:"
M	121	11	Expanded Time	HH.MM.SS. NN	Format is: HH.MM.SS.NN Since blocks 1 and 2 do not allow for seconds in the time fields, this field gives the time down to the second. It contains either the time a DTCC subsidiary received the message from the submitter or the time the message was created by a DTCC subsidiary
M	132	1	Ending Delimiter of Expanded Time Tag	}	The character } is used to indicate the end of the tag
M	133	1	Ending Block Delimiter	}	The character } is used to indicate the end of a block

Text Block

M/O	Tag	Length	Field Description	Example	Description
M	134	1	Starting Block Delimiter	{	The character { is used to indicate the beginning of a block
M	135	2	Starting Block Identifier	4:	Must contain a value of "4:"
M	137	2	Carriage Return – Line Feed (crlf)	*crlf*	Must contain the carriage return - line feed (crlf) combination
M	139	1-27,000 bytes	Message Data		The actual contents of the message will be inserted here
M		3	End of Message Data Carriage Return - Line Feed (crlf) and hyphen	*crlf* -	Must contain the carriage return - line feed combination followed by a hyphen
M		1	Ending Block Delimiter	}	The character } is used to indicate the end of a block

SWIFT ISO Output Message Blocks

All ISO messages must contain the following 4 message blocks.

- Basic Header Block - Contains the general information identifying the message and some additional control information.
- Application Header Block - Contains information specific to the application and is required for messages exchanged between users or between the system and users.
- User Header Block - Contains user reference information.
- Text Block - Contains the actual data being transmitted.

All alphabetic characters in the 3 header blocks (Basic, Application and User) must be in upper-case. The system does not recognize lower-case letters as equivalent to upper-case.

Basic Header Block

Field Description	Position	Length	Content Rules	Input Value
Starting Block Delimiter	1	1	The character { is used to indicate the beginning of a block	{
Block Identifier	2	2	Must contain a value of “1:”	1:
Message Identifier	4	1	Must contain a value of “F”	F
Protocol Identifier	5	2	Must contain a value of "01"	01
Submitter's Bank/ Firm Code	7	8	Submitter's Bank Identifier Code (BIC) or the user's Participant ID (If the submitter is a Group User, this ID must be connected in DTCC's Group User eligibility table)	12345678

Field Description	Position	Length	Content Rules	Input Value
Logical Terminal	15	1	Identifies terminal type. "A" for Swift messages, "X" for non-Swift messages	X
Branch Code	16	3	Identifies branch	123
Session Number	19	4	A 4 digit value assigned by the submitter. Its default is 0000. The Session Number is not validated by the receiving DTCC subsidiary	0000
Sequence Number	23	6	A 6 digit value assigned by the submitter. Its default is 000000. The Session Number is not validated by the receiving DTCC subsidiary	000000
Ending Block Delimiter	29	1	The character } is used to indicate the end of a block	}

Application Header Block

Field Description	Position	Length	Content Rules	Input Value
Starting Block Delimiter	30	1	The character { is used to indicate the beginning of a block	{
Block Identifier	31	2	Must contain a value of "2:"	2:
Input/ Output Identifier	33	1	Must contain a value of "I"	I

Field Description	Position	Length	Content Rules	Input Value
ISO Message Type	34	3	Must contain a valid 3 digit ISO Message Type ID	548
Recipient's Bank/Firm Code	37	8	The value of this field should be one of the following based on function definition: 1. Recipient's Bank Identifier Code (BIC) 2. Recipient's Participant ID 3. Value of "INTDTC" (Internal DTC User) when the function used is a one party transaction and the recipient of the message is an internal DTC application	12345678
Logical Terminal	45	1	Identifies a terminal type when a BIC ID is entered as the Recipient's Bank/Firm Code	X
Branch Code	46	3	Identifies branch when a BIC ID is entered as the Recipient's Bank/Firm Code	123
Message Priority	49	1	Must contain a value of "N"	N
Delivery Monitoring	50	1	Must contain a value of "2"	2
Ending Block Delimiter	51	1	The character } is used to indicate the end of a block	}

User Header Block

Field Description	Position	Length	Content Rules	Input Value
Starting Block Delimiter	52	1	The character { is used to indicate the beginning of a block	{
Block Identifier	53	2	Must contain a value of "3:"	3:
Version Number Tag	55	5	Must contain a value of "{113:"	{113:
Version Number	60	4	Must contain a value of "0301" for Settlement ISO Messages Must contain a value of "0701" for EuroCCP ISO Messages	1234
Ending Delimiter of Version Number Tag	64	1	The character } is used to indicate the end of the tag	}
Submitter's Reference Key Tag	65	5	Must contain a value of "{108:"	{108:
Submitter's Reference Key	70	16	Unique key created by the submitter to identify the transaction	XXXXXXXXXXXXXXXX
Ending Delimiter of Submitter's Reference Key Tag	86	1	The character} is used to indicate the end of the tag	}
Ending Block Delimiter	87	1	The character } is used to indicate the end of a block	}

Text Block

Field Description	Position	Length	Content Rules	Input Value
Starting Block Delimiter	88	1	The character { is used to indicate the beginning of a block	{
Starting Block Identifier	89	2	Must contain a value of "4:"	4:
Carriage Return - Line Feed (crlf)	91	2	Must contain the carriage return - line feed (crlf) combination	crlf
Message Data	93	1-27,000 bytes	The actual contents of the message will be inserted here	
End of Message Data Carriage Return - Line Feed (crlf) and hyphen		3	Must contain the carriage return - line feed combination followed by a hyphen	crlf-
Ending Block Delimiter		1	The character} is used to indicate the end of a block	}

Settlement Status (Long Version)

Business Transaction: **Settlement Status (Long Version)**

ISO Message Type: **MT548 - Settlement Status and Processing Advice**

These are optional messages are sent to the participant for "non-made" state changes in IMS/ATP occurs.

Key: **M** = Mandatory, O = Optional

Mandatory Sequence A - General Information

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - General Information	:16R:		GENL
O	DTCC Tracking Number	:20C:	:SEME//	16x
O	Message Function Field that identifies the function of the message	:23G:		INST
O	Transaction Update Date/Time Date the transmission was updated	:98C:	:PREP//	yyyymmddhhmmss

Mandatory Subsequence A1 - Linkages (IMS TID)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Linkages	:16R:		LINK

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	IMS Transaction ID Inventory Management System (IMS) transaction identifier	:20C:	:RELA//	16x
M	End of Block - Linkages	:16S:		LINK

Mandatory Subsequence A1 - Linkages (ID Control Number)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Linkages	:16R:		LINK
O	ID Control Number Unique reference used to identify Institutional Delivery (ID) transactions processed by Omgeo.	:20C:	:COMM//	16x
M	End of Block - Linkages	:16S:		LINK

Mandatory Subsequence A1 - Linkages (Obligation Warehouse)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Linkage	:16R:		LINK

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	Obligation Warehouse Control Number Obligation Warehouse Control Number for OW DOs	:20C:	:COMM//	16x Note- Mandatory for OW DO transaction. Format is 16 characters. The first character must be W and the remainder must be numeric. Format- WCCYYDDDNNNNNNN N where W is a literal, CC-Century, YY-Year, DDD-Julian Day, NNNNNNNN-8 byte sequential number
M	End of Block - Linkages	:16S:		LINK

Mandatory Subsequence A1 - Linkages (Deliverer Reference Number)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Linkages	:16R:		LINK
O	Deliverer's Reference Number Assigned by payee (deliverer) for audit trail	:20C:	:TRRF//	16x
M	End of Block - Linkages	:16S:		LINK

Mandatory Subsequence A1 - Linkages (IMS TID of Reclaimed Transaction)				
M/O	**Field Description**	**Tag**	**Qualifier(s)**	**Content Rules**
M	Start of Block - Linkages	:16R:		LINK
O	IMS TID of Reclaimed Transaction Unique transaction reference number assigned by the Inventory Management System (IMS) and used to process a reclaim or DK (don t know) request.	:20C:	:PREV//	16x
M	End of Block - Linkages	:16S:		LINK

Mandatory Subsequence A2 - Status				
M/O	**Field Description**	**Tag**	**Qualifier(s)**	**Content Rules**
M	Start of Block - Status	:16R:		STAT
O	Status Code The IMS or ATP states assigned as the transaction is processed through IMS and ATP.	:25D:	:SETT/DTCY/	4x Valid Status Codes: AUTH -Authorized, CANA – ATP Cancelled, CANC – IMS Cancelled, MAKD - Made, NAL1 - CNS Level 1 Received, NAL2 - CNS Level 2 Received, PDRI - IMS Permanently Dropped, PDRP - Dropped Permanent, PREA - Pre-Authorized, PREX - Pre-Exempted, RATP – PDC

M/O	Field Description	Tag	Qualifier(s)	Content Rules
				Reduction Processed, RAUT - RAD Authorized, RDPR – ATP Dropped Reintroduced, RGRN - Recycling Green, RJCF – IMS Rejected to File, RJCT – ATP Rejected, RJCI - IMS Rejected, RLSD - Released, RSUB - Submitted to RAD, SUBA - Submitted to ATP, UNPR - Unprocessed, XMPT - Exempted, XPER – Recycling Express, RXMP – Receiver RAD Exempt. PNDS – Pending in Staging Area SUBO - Submitted to Optimizer CANS -Cancelled in Staging Area

Optional Subsequence A2a - Reason

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Reason	:16R:		REAS
O	Reject Code - Field Code Reject code	:24B:	:REJT/DTCY/	4x

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	Reject Code - Error Message Reason for the reject	:70D:	:REAS//	35x crlf 35x crlf 35x crlf 35x crlf 35x crlf 35x The maximum length DTC will accept is 210, 6 lines of 35 characters. Each line should be separated by a CRLF (carriage return - line feed).
M	End of Block - Reason	:16S:		REAS

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	End of Block - Status	:16S:		STAT

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	End of Block - General Information	:16S:		GENL

Optional Sequence B - Settlement Transaction Details

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Settlement Transaction Details	:16R:		SETTRAN

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	ISIN Identification of the financial Instrument (Country Code, CUSIP and Check Digit)	:35B:		The literal "ISIN" followed by a space followed by the 12 character ISIN. Note-DTC not accept Non U.S. ISIN Example-ISIN US1234567891. Note-DTC does not accept Non U.S. ISIN
O	Quantity Quantity of financial instrument to be settled expressed as units such as share quantity	:36B:	:SETT//	UNIT/999999999, At least 1 whole digit is required. No more than 9 may be present. Fractions are not always required.
O	Settlement Amount Dollar Amount that was settled with regards to this transaction.	:19A:	:SETT//	USD9999999999,99 USD followed by at least 1 whole digit. No more than 10 whole digits may be present. Fractional digits are optional, but no more than 2 may be present. A decimal comma is always required.
O	Safekeeper Identifies account where financial instruments are maintained	:97A:	:SAFE//	35x
O	Reason Code The reason code for the transaction. This required field must be	:22F:	:SETR/DTCYREAS/	4x 0 followed by 3 digit DTCC reason code.

M/O	Field Description	Tag	Qualifier(s)	Content Rules
	filled with a 2-character alpha-numeric reason code defined by DTC. The validity of a reason code is partly dependent upon the time of transmission.			
O	Receiver/Deliverer Indicator	:22H:	:REDE//	DELI or RECE Valid Values: DELI – indicates that you are the deliverer or RECE - indicates that you are the receiver
O	Payment Indicator Indicates whether the underlying securities are free or valued	:22H:	:PAYM//	APMT or FREE Valid values: APMT - indicates a valued transaction or FREE - indicates a free transaction
O	Internal Source Code Identifies the input media for the transaction	:22F:	:STCO/DTCYISRC	4x
O	Transaction Type IMS transaction type	:22F:	:STCO/DTCYTXNT/	4x
O	Activity Code A code identifying a transaction.	:22F:	:STCO/DTCYACTV	4x
O	3rd Party Status Indicator Indicator used for the	:22F:	:STCO/DTCY/	TRDP or TRDA or TRDD The IMS state for Third Party approvals. TRDP –

M/O	Field Description	Tag	Qualifier(s)	Content Rules
	Third Party approvals status.			Pending Approval, TRDA - Approved, TRDD – Disapproved.
O	CNS Level Indicator Indicates how CNS short (levels 1 and 2) and long (level 4) shares should be processed. i.e. Short shares can be exempted and long shares anticipated.	:22F:	:SETS/DTCY/	LVL1, LVL2, LVL3, LVL4 or LVLL
O	Actual Settlement Date Date at which the transaction was actually settled on.	:98A:	:EXSE//	yyyymmdd
O	Settlement Date Date on which the transaction should be settled. The contract date for a security payment order. The delivery date is the contract date and is required for reason codes.	:98A:	:SETT//	yyyymmdd
O	Narrative - DTC DO Comments Provides additional settlement processing information	:70E:	:SPRO//	35x crlf 35x crlf 35x crlf 35x crlf 35x crlf 35x crlf 35x crlf 35x crlf 35x crlf 35x The maximum length DTC will accept is 350, 10 lines of 35 characters. Each line should be separated by a CRLF (carriage return - line

M/O	Field Description	Tag	Qualifier(s)	Content Rules
				feed).

Optional Subsequence B1 - Settlement Parties (Deliverer)				
M/O	**Field Description**	**Tag**	**Qualifier(s)**	**Content Rules**
M	Start of Block - Settlement Parties	:16R:		SETPRTY
O	Deliverer Participant that delivers the security; for a payment order the payee; for a collateral pledge the pledgor.	:95R:	:DEAG/DTCYPART/	00009999 0000 followed by 4 digits. All 4 digits are required.
O	Deliverer's Intermediary 1 Deliverer's Intermediary 1	:95Q:	DEI1/	35x max 4 lines of 35 bytes
O	Deliverer's Intermediary 2 Deliverer's Intermediary 2	:95R:	DEI2/OCCX	34x max 34 bytes

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	Deliverer's Account Number Deliverer, payee, or pledger account number. Could be DTCC Participant number or the deliverer's internal account number.	:97A:	:SAFE//	35x
M	End of Block - Settlement Parties	:16S:		SETPRTY

Optional Subsequence B1 - Settlement Parties (Receiver)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Settlement Parties	:16R:		SETPRTY
O	Receiver Participant that receives the security; for a payment order, the payor; for a collateral pledge the pledgee.	:95R:	:REAG/DTCYPART/	00009999 0000 followed by 4 digits. All 4 digits are required.
O	Receiver's Intermediary 1 Receiver's Intermediary 1	:95Q:	REI1/	35x max 4 lines of 35 bytes
O	Receiver's Intermediary 2 Receiver's Intermediary 2	:95R:	REI2/OCCX	34x max 34 bytes

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	Receiver's Account Number Receiver, payor, or pledgee account number. Could be DTCC Participant number or the receiver's internal account number.	:97A:	:SAFE//	35x
M	End of Block - Settlement Parties	:16S:		SETPRTY

Optional Subsequence B1 - Settlement Parties (Place of Settlement)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Settlement Parties	:16R:		SETPRTY
O	Place of Settlement DTCC BIC Number	:95P:	:PSET//	DTCYUS33
M	End of Block - Settlement Parties	:16S:		SETPRTY

Optional Subsequence B1 - Settlement Parties (Deliverer - Intermediary)

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block - Settlement Parties	:16R:		SETPRTY
O	Deliverer's Intermediary Depository Third Party field	:95R:	:DEI1/DTCYPART	34x

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	End of Block - Settlement Parties	:16S:		SETPRTY

Optional Subsequence B1 - Settlement Parties (Receiver - Intermediary)				
M/O	**Field Description**	**Tag**	**Qualifier(s)**	**Content Rules**
M	Start of Block - Settlement Parties	:16R:		SETPRTY
O	Receiver's Intermediary Depository Third Party field	:95R:	:REI1/DTCYPART	34x
M	End of Block - Settlement Parties	:16S:		SETPRTY

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	End of Block - Settlement Transaction Details	:16S:		SETTRAN