



DTCC

MMI Optimization

**MMI Finality Through Optimization ISO 15022
Message Layouts**

DTCC Controlled: Non-Confidential

Document History

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| 09/01/15 | New ISO 15022 message created for the MMI Finality Through Optimization initiative. This MT598 acronym status proprietary message sends the MMI acronym status & total amount of transactions to IPAs. |
| 12/18/2015 | Added documentation for the DTC proprietary ISO header message. This is an alternative to the SWIFT ISO header message. Added new status code fields to Acronym Status Proprietary Message in Detail of Proprietary Message Field of 77E tag, Mandatory sequence B. |
| 04/08/2016 | Added a new PP (Principal Payments) Unknown Rate Indicator field in Mandatory Sequence B tag 22F, and in the Balance field tag 93B added Principal Payments as a value. |

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	598	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	XXXXXXXXXX XXXXXXXX	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)	<i>crlf</i>	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	<i>crlf -</i>	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 Input Message Blocks

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.

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	598
Recipient's Bank/Firm Code	37	8	<p>The value of this field should be one of the following based on function definition:</p> <ol style="list-style-type: none"> 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	XXXXXXXXXXXXXXXXXX
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	}

MT598 – Acronym Status Proprietary Message

Business Transaction: **Acronym Status Proprietary Message**

ISO Message Type: **MT598 – Acronym Status Proprietary Message**

MMI Finality Through Optimization Changes – Targeted for Q4 2016

The message will be used to send the acronym status & total amount of transactions to IPAs.

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

Detail of MT598 Amounts Proprietary Message

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Client Transaction Reference Number	:20:		:20:2015081000001501ABCD
M	Sub-Message Type	:12:		:12:060
M	Proprietary Message	:77E:		:77E:

Detail of Proprietary Message Field of 77E tag

Mandatory Sequence A - General Information

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block – General Information	:16R:		GENL

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Sender's Reference Number Sender's reference number	:20C:	:SEME//	16x
M	Message Function Field that identifies the function of the message	:23G:		NEWM
M	Transaction Update Date/Time	:98C:	:PREP//	yyyymmddhhmmss
M	End of Block – General Information	:16S:		GENL

Mandatory Sequence B

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Start of Block – Status	:16R:		STAT
M	Acronym MMI Issuer Acronym	:35B:		/XX/ACRM AAA* “/XX/ACRM ” followed by 4 characters of MMI Issuer Acronym

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	<p>Safekeeper</p> <p>Identifies account where financial instruments are maintained.</p>	:97A:	:SAFE//	<p>35x</p> <p>IPA Participant Number</p>
M	<p>Status Code</p> <p>The status of acronym after Start-of-Day processing</p>	:25D:	:SETT/DTCY/	<p>4x</p> <ul style="list-style-type: none"> • PEND – Pend Optimizer • ATPP – ATP Processing • DMAK – Pend Decision Making • RTPY– Refusal to Pay • TRTP– Temporary refusal to Pay • RTPM– Refusal to Pay by other IPAs if there are multiple IPAs for an acronym • TRTM– Temporary Refusal to Pay by other IPAs if there are multiple IPAs for an acronym • PNDM– Pending in Staging Area and wait for other IPAs to make a funding decision if there are multiple IPAs for an acronym • PNDU – Pending Unknown Rate
M	<p>Funding Type Indicator</p>	:22F:	:SETR/DTCY/	<p>4x</p> <ul style="list-style-type: none"> • FULL – Fully Funded • PART – Partially Funded • RTPY – Refusal To Pay • TRTP – Temporary Refusal To Pay • PNCL – PEND Cancel a Transaction in Staging Area • NONE – No Decision

Repetitive

M/O	Field Description	Tag	Qualifier(s)	Content Rules
M	Balance	:93B:	:AGGR/	:93B::AGGR/DTCY<c>/UNIT/<amt> Where c is: <ul style="list-style-type: none"> • MP – Maturity Obligations • IP – Income Presentments • RP – Reorg Payments • PP – Principal Payments • FA – Funded Amount • PR – Pending Receiver Authorization • AC – Authorized Credits • NA – Net Amount • PN – Potential Net Amount • UM – MP Unknown Rate Par Value • UR – RP Unknown Rate Par Value

M/O	Field Description	Tag	Qualifier(s)	Content Rules
O	IP Unknown Rate Indicator	:22F:	:STCO/DTCY/	4X <ul style="list-style-type: none"> • UIPY – There are IP Unknown Rate transactions • UIPN – There are no IP Unknown Rate transactions
O	PP Unknown Rate Indicator	:22F:	:STCO/DTCY/	4X <ul style="list-style-type: none"> • UPPY – There are PP Unknown

M/O	Field Description	Tag	Qualifier(s)	Content Rules
				Rate transactions <ul style="list-style-type: none">• UPPN – There are no PP Unknown Rate transactions
M	End of Block – Status	:16S:		STAT