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# Technical Specifications

28 September 2018

# TVTIC definition

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V 1.0



**London**  
Stock Exchange Group

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## 1.0 Introduction

### 1.1 Scope

TVTIC (Trading venue transaction identification code) represents “a number generated by trading venues and disseminated to both the buying and selling parties in accordance with Article 12 of MiFID II RTS 24”.

The document *TVTIC definition* provides the general guidelines to calculate starting from the Trade identifier the TVTIC value that is fully compliant with the requirements of CDR 2017/580 and with ESMA’s technical specifications for Transaction Reporting for both Millennium IT and SOLA platforms.

### 1.2 Document history

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Version	Changes
1.0	Initial Version

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## 2.0 TVTIC Calculation

The trading venue transaction identification code shall be alphanumerical (with max. length of 52 chars) and “unique, consistent and persistent per ISO10383 segment MIC and per trading day”.

ESMA’s technical specifications for the TVTIC to be used in Transaction Reports, while indicating this should be an alphanum-52, require that the TVTIC to be received by ESMA’s systems includes only Latin capital letters and numbers.

A trading venue transaction identification code (TVTIC) fulfilling these requirements can be calculated by the customer considering the following general rules.

### 2.1 MIT Platform

On Millennium IT platform Trade Identifiers are unique per Market and in particular they are provided:

- On the Native interface via the *TradeMatchID* field of the Execution report message. This is a numeric field (8 bytes integer field) already compliant CDR 2017/580 and with ESMA’s technical specifications for Transaction Reporting. An example of a TradeMatchID via the native interface could be the following:

*1771558787874903 (TVTIC)*

- On the FIX interface via the TradeMatchID field (TrdMatchID -> tag 880). The TrdMatchID on FIX (tag 880) is in base 62, can include uppercase letters A-Z, lowercase letters a-z and numbers, and needs to be converted to an 8 byte integer to make it compliant with CDR 2017/580 and with ESMA’s technical specifications for Transaction Reporting. An example of a TradeMatchID via the FIX interface is the following

*T873Hj4Pjz*

The procedure to calculate the TVTIC for FIX protocol is the following:

- o Take the TrdMatchID (tag 880) -> T873Hj4Pjz

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- Remove the left most byte -> *873Hj4Pjz*
- Convert the rest of the digits from base 62 to decimal (base 10) using the base 62 dictionary -> *1771558787874903 (TVTIC)*

## 2.2 SOLA Platform

On SOLA platform Trade Identifiers are unique per instrument. This means trades on two different instrument can have the same trade identifiers.

It is possible to make the identifier unique concatenating the “Instrument ID + Group ID + Trade Number”.

- The procedure to calculate the TVTIC for Native/SAIL protocol is the following
  - Take the *Trade Number* field (i.e NT execution notice message) -> *00000064*
  - Concatenate Instrument ID + Group ID (Sico, i.e. IU00z0) + Trade Number -> *IU00z000000064*
  - Decode from base 62 to base 10 -> *3697302535470272517007224 (TVTIC)*
- The procedure to calculate the TVTIC for FIX protocol is the following
  - Take the *ExecID* field (i.e. execution report message) -> *NT00006670IV00z1BA*
  - Isolate trade number and Sico -> *00006670* and *IV00z1*
  - Concatenate Sico + Trade Number -> *IV00z100006670*
  - Decode from base 62 to base 10 -> *3700528802451010523866266 (TVTIC)*

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## 3.0 Ancillary services

Market Participants are also reminded that Borsa Italiana is offering end-of-day reconciliation reports (the “Reconciliation Report” services) for its cash and derivatives markets, that include a converted version of the TVTIC.

In case of interest for this value-added services offered by Borsa Italiana, please refer to section “Borsa Italiana – Trading services” of Borsa Italiana’s website [www.borsaitaliana.it/borsaitaliana/gestione-mercati/gestione-mercati.en.htm](http://www.borsaitaliana.it/borsaitaliana/gestione-mercati/gestione-mercati.en.htm) and, more specifically, to the following links:

- MIT601 - Report Reconciliation Specification;
- Report Reconciliation Specification.

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## 4.0 ANNEX A – Conversion table from base 62 to base 10

0	0	16	G	32	W	48	m
1	1	17	H	33	X	49	n
2	2	18	I	34	Y	50	o
3	3	19	J	35	Z	51	p
4	4	20	K	36	a	52	q
5	5	21	L	37	b	53	r
6	6	22	M	38	c	54	s
7	7	23	N	39	d	55	t
8	8	24	O	40	e	56	u
9	9	25	P	41	f	57	v
10	A	26	Q	42	g	58	w
11	B	27	R	43	h	59	x
12	C	28	S	44	i	60	y
13	D	29	T	45	j	61	z
14	E	30	U	46	k		
15	F	31	V	47	l		