

# Smart containers - Challenges for the terminal

Jasmin Drönner



#### The terminal

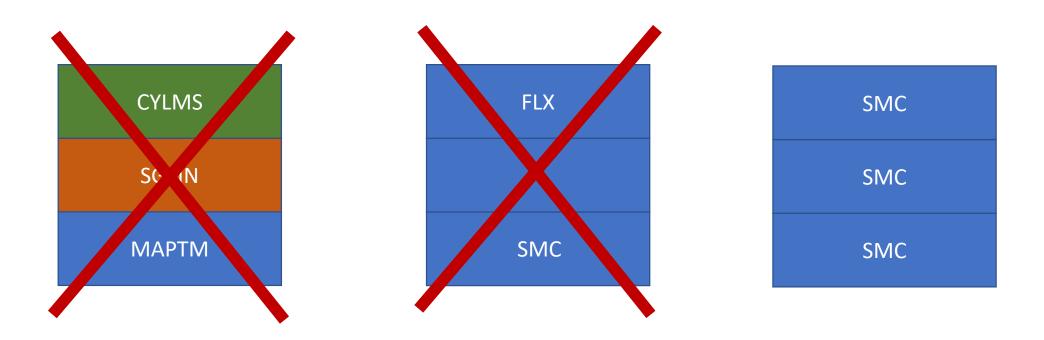


**Container arrival** Stowage in the yard **Container departure** by vessel/voyage Load operation MANA BA AV



#### The terminal: stowage in yard



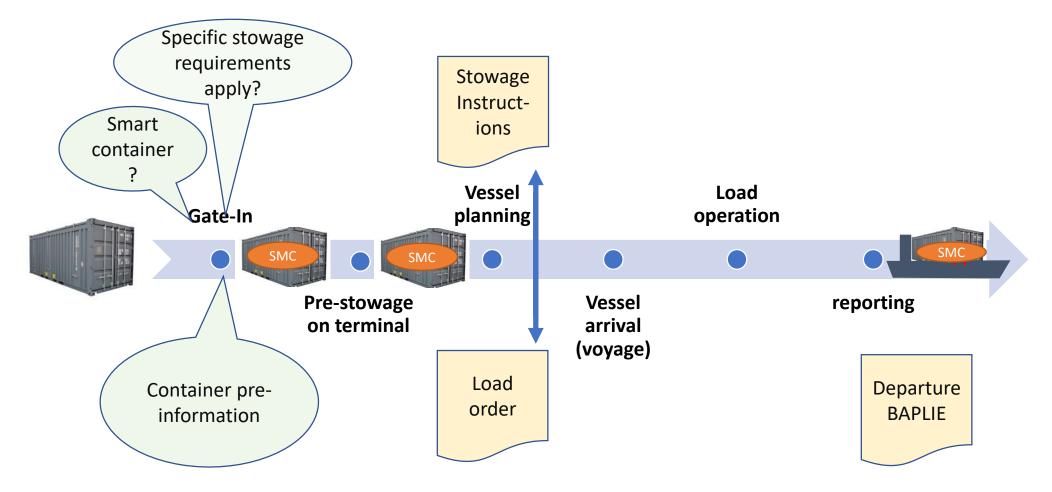




3 12/05/2022 © SMDG e.V. www.smdg.org

# The terminal process







# **Retrieval of information**



#### • Option 1:

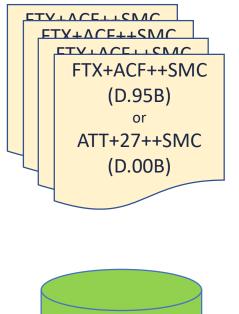
#### retrieve smart container information in

- pre-arrival information (COPARN)
- load order
- stowage instructions
- (COPRAR) (MOVINS)

• Option 2:

#### store SMC information in ...

- container master data table and
- assign to container if applicable

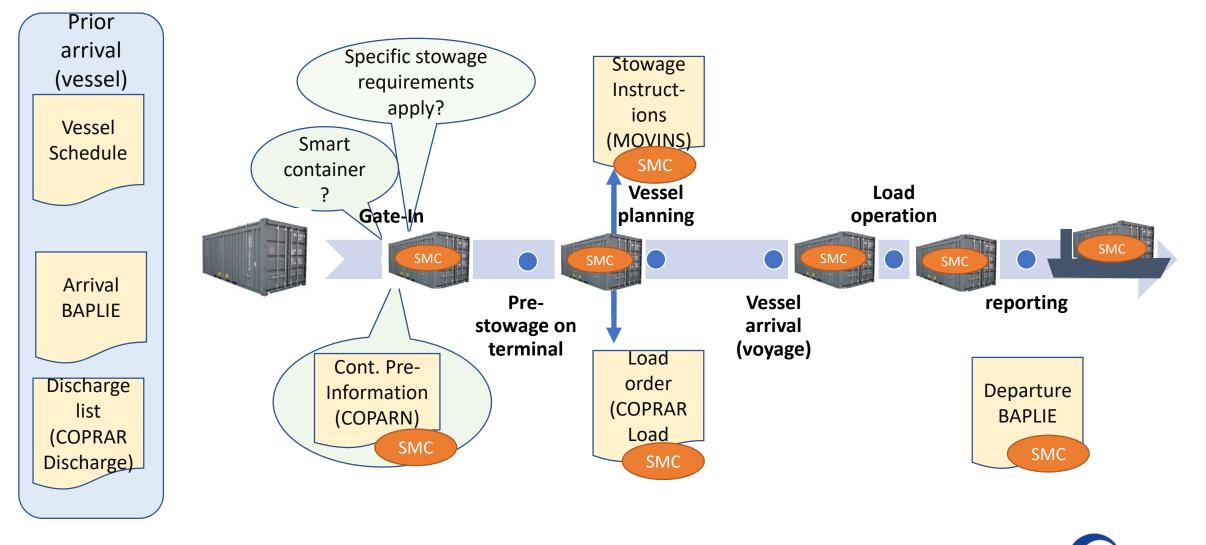






#### SMC - Option 1





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#### Option 1 - what do we need?



• code

• syntax

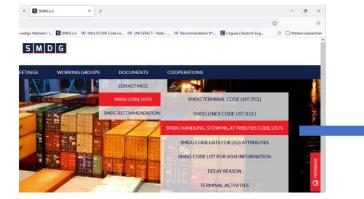
• message



### Option 1: where to find the code

(D.95B)





**ATT+27++SMC:ATTRIBUTES:306 (D.00B)** *in messages that contain the ATT segment* 

#### FTX+ACF++SMC:ATTRIBUTES:306 (D.00B)

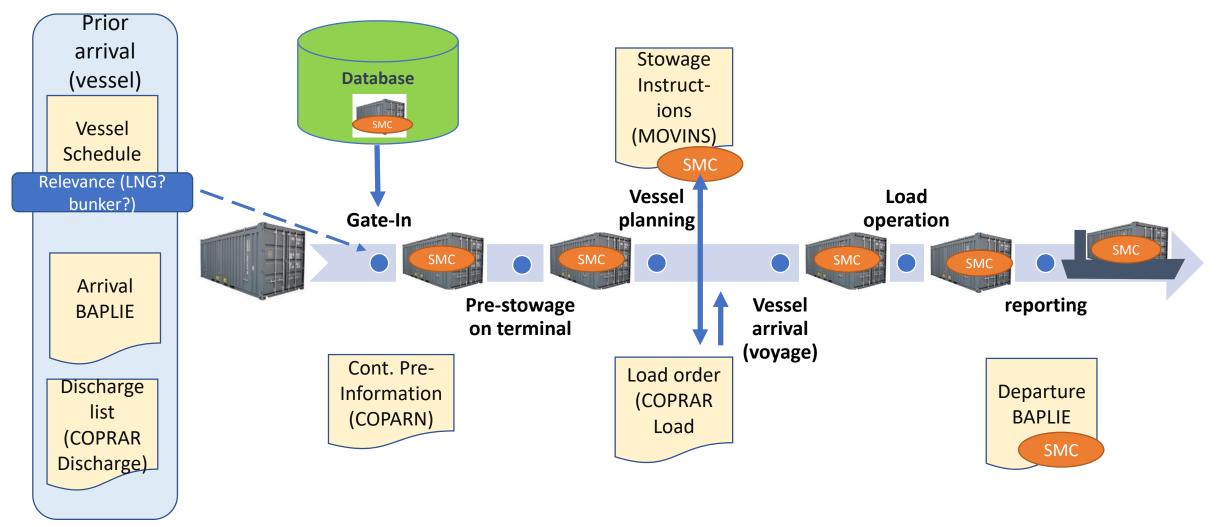
FTX+ACF++SMC:ATT:306

S	MDG	v20210625 SMDG Attribute code list	
	Definition:	These codes	s define properties or Status of a transport equipment on a specific means of
DE 1131	= ATTRIBUTES	Examples:	
			ATT+27++SMC:ATTRIBUTES:306'
			FTX+ACF++SMC:ATTRIBUTES:306' (D.00B and later)
			FTX+ACF++SMC:ATT:306' (before D.00B)
<u>Code</u>	▼ <u>Name</u>	Category 🔻	Description .
SMC	Smart Container	PROPERTY	Smart Continer
SMP	Container with passive tag	PROPERTY	Container equipped with an passive tag (e.g. RFID) enabling automatic registration
SQ	Stuffed on quay	STATUS	Equipment stuffed on quay
STC	Steam cleaned	STATUS	Steam cleaned
SVY	Surveyed	STATUS	Surveyed
TCR	Timber control treatment performed	STATUS	Timber control treatment performed
UCI	Prepared for UCIRC Standard	STATUS	Prepared for UCIRC Standard, UCIRC: Unified Container Inspection & Repair Criteria
UQ	Unstuffed on quay	STATUS	Equipment unstuffed on quay
V3Q	Vents three quarters open	STATUS	Vents three quarters open
VCL	Vents closed	STATUS	Vents closed
VFO	Vents fully open	STATUS	Vents fully open
VHO	Vents half open	STATUS	Vents half open
νου	Vents one quarter open	STATUS	Vents one guarter open



# **Option 2: stored in database**





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# Thank You

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