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Event Structure Definitions 1.0

Customer-facing Track and Trace

Version 1.0

Table of contents

1   Introduction

This document provides additional depth and content to the Event Naming Convention. In the following sections definitions for each element (Journey, Parameter and Value) within the structure will be introduced.

All definitions should be read in the context of customer-facing Track & Trace events. Some terms defined in this document could have a different meaning in another context, such as for operational or financial purposes.

2   Structure

The naming convention consists of the element types, i.e. Journey, Parameter and Value.

2.1 Journey

Journey defines the entity being tracked as well as the syntax used for specific events within the journey.

2.2 Parameter

Parameter defines every type of information included in an event. Most parameters enable a clear understanding of the context. Each journey includes one parameter identifying the occurrence, which is the driving action within each event. This parameter is called Event Type.

2.3 Value

Each parameter within the structure can have a number of values. Value is what is being inserted into the syntax specified for each journey to create a unique event.

2.4 Syntax

For each journey a Syntax is specified. Syntax governs the way values can be combined to create unique events.

3 Equipment Journey

The structure of the Equipment Journey governs the naming and understanding of events, which are driven by physical occurrences related to the equipment in question.

The structure of events within the Equipment Journey follows the syntax below:

(EventClassifier)_(EventType)_of_(EmptyIndicator)_equipment_onto/from_(TransportMode)_at_(FacilityType)

3.1 Event Classifier

The Event Classifier parameter is the notation for different time stamps that may be associated with a single event.

3.1.1 Planned

"Planned" is the point in time at which completion is planned in accordance with the original route or transportation plan. The transportation plan is generated when the carrier sends the booking confirmation to the customer and will not change afterwards unless a revised plan is agreed by stakeholders.

3.1.2 Estimated

"Estimated" is the forecasted completion time of an event by the carrier any time after a booking is confirmed and before the event is completed. The estimated event is a dynamic value, which will change based on the running forecast of the completion time.

3.1.3 Actual

"Actual" is the time stamp associated with the actualization of an event. It is when the event is completed in accordance with the definition of the Event Type.

3.2 Event type

Event Type in the Equipment Journey is the active occurrence which is being reported on. For the Equipment Journey, the event is identifying what physical activity is executed to cause a change in the state or status of the equipment.

3.2.1 Load

Load is the action of lifting equipment on board of the transport mode. It is deemed complete once the equipment has been lifted on board the transport mode and no longer engaged by the crane or loading equipment.

3.2.2 Discharge

Discharge is the action of lifting equipment off a mode of transport. Discharge is deemed complete once the equipment is lifted off the mode of transport and no longer engaged by the crane or loading equipment.

3.2.3 Gate-in

Gate-in is the action of equipment being moved into a specified location type. Gate-in will often be associated with a move into a controlled and gated area, but no physical gate or check point is required.

3.2.4 Gate-out

Gate-out is the action of equipment exiting from a specified location type. Gate-out will often be associated with removal of equipment from a controlled and gated area, but no physical gate or check point is required.

3.2.5 Stuffing

Stuffing is the process of loading cargo into a container or in/onto another piece of equipment. The process is completed once the equipment is sealed and ready for loading onto the next transport leg.

3.2.6 Stripping

Stripping is the act of emptying cargo from a container. The action is completed once the equipment is completely emptied and ready for loading onto the return transport leg.

3.3 Empty indicator

This parameter indicates whether the container has cargo inside at any given time. In the context of the DCSA event structure, Empty Indicator is a binary parameter.

3.3.1 Laden

Containers are considered laden once the stuffing is complete regardless of whether the equipment has room for additional cargo. This means the container is considered laden even if it is only stuffed with partial load. The status of the Empty Indicator will change as soon as the equipment is no longer completely empty.

3.3.2 Empty

Containers are considered empty once all cargo have been removed and cleaning has been performed according to carrier standards (including empty tank containers with residue) this includes the period before stuffing occurs.

3.4   Transport Mode

This parameter is the identifier for the mode of transportation.

3.4.1   Vessel

A vessel is a floating structure with an internal mode of propulsion designed for the transport of cargo and/or passengers. Vessels are seagoing, and can be either mother vessels (deep sea/ocean) or feeder vessels (short sea).

3.4.2   Barge

A barge is a flat-bottomed floating structure built mainly for transport of cargo/equipment at coastal areas, rivers, canals or on open sea. A barge may or may not be self-propelled.

3.4.3   Truck

A truck is a road-going vehicle designed for the movement of goods or people. In the context of the event naming structure, this is limited to trucks designed for containerized cargo and excludes trucks and vans carrying parcels or other cargo.

3.4.4   Rail

Rail is rail transport designed for the movement of goods or people. In the context of the event naming structure, this is limited to rail transport designed for containerized cargo.

3.5   Facility Type

Facility Type provides the locational context of the event being reported on. Facility Types are defined as unique types of areas where equipment can be located for a specified period of time. The location identifier will be based on UN-LOCODES at country, city and subarea levels.

3.5.1   Depot

Depot is a designated area where empty equipment is stored between use.

3.5.2   Customer location

Customer location is the premise of the customer, who can be either the shipper or the consignee.

3.5.3   Port terminal

Port terminal is a facility located adjacent to a waterway where containers are loaded, moved or discharged onto/from sea-going vessels and barges.

3.5.4   Inland terminal

Inland terminal is a facility where containers are loaded, moved or discharged. The inland terminal can be serviced by trucks, rail and barges (at river terminals).

3.5.5   Container yard

Container yard is a facility in relative proximity to a port or inland terminal for intermediate storage of equipment. This facility, as an alternative to storing equipment at the port or inland terminal, provides intermediate storage of equipment until loading for the next transport leg can commence. This is also known as off-dock storage.

3.5.6 Container freight station

Container freight station is a facility where LCL (Less Than Container Load) shipments are consolidated or dispersed, cargo is stuffed into containers prior to shipment, or cargo is stripped from containers prior to release to the consignee.

3.5.7 Border crossing

Border crossing is the point at a border between two countries where people, transports or goods can cross. This may or may not include a customs checkpoint.

4 Transport Journey

The structure of the Transport Journey governs the naming and understanding of events which are driven by occurrences in the general transport of a shipment. A Transport Journey includes all customer-relevant events carried out by one or more modes of transport.

The structure of events within the Transport Journey follows the syntax below:

(EventClassifier)_(TransportMode)_(EventType)_at/from_(FacilityType)

For Event Classifier, Transport Mode and Facility Type please reference the previous chapter.

4.1 Event Type

Event Type in the Transport Journey is the active occurrence being reported on. For the Transport Journey this is a binary parameter which can have the value of "Arrival" or "Departure".

4.1.1 Arrival

Arrival is the event which occurs when a mode of transport reaches its final or intermediate destination and is ready for load/discharge operations at that location. Depending on the mode of transport, arrival will have different definitions:

- Vessel/Barge: A vessel/barge has arrived once the vessel is berthed at the port terminal
- Rail: A rail transport has arrived once the transport is stationary at the intended platform or rail head.
- Truck: A truck has arrived once the truck is stationary in front of the loading dock or other loading facility.

4.1.2 Departure

Departure is the event of a mode of transport leaving a place of operations. Depending on the mode of transport, departure will have different definitions:

- Vessel/barge: Departure has been completed once the last mooring has been released.
- Rail: Departure has been completed once the rail transport is no longer stationary in front of the platform or rail head.
- Truck: Departure has been completed once the truck is no longer stationary in front of the loading dock or loading facility.

5 Shipment Journey

The structure of the Shipment Journey governs the naming and understanding of events which are driven by occurrences in the customer-facing information flow tied to a shipment. A shipment can consist of FCL/LCL (plus carrier/merchant haulage).

The structure of events within the Shipment Journey follows the syntax below:

(ShipmentInformationType)_(EventType)

5.1 Shipment Information Type

This parameter is an identifier for a specific information type in an event. Information Types in the structure follow the shipment and/or the equipment associated with a shipment, and they all have dependencies on the shipper or consignee.

5.1.1 Booking

Booking is a reservation of space and/or equipment on a particular vessel/voyage and possibly inland transport with a specific origin/destination/equipment type and commodity.

5.1.2 Shipping instruction

Shipping Instruction provides additional information about the original booking sent by the shipper to the carrier. Shipping instructions include volume/weight, shipping dates, origin, destination and other special instructions. The information given by the shipper through shipping instructions is what is required to create the Bill of Lading.

5.1.3 Verified Gross Mass (VGM)

VGM is a document informing the carrier of the weight of the container, signed by an authorized person from the shipper or on behalf of the shipper. This includes cargo weight, bracing, dunnage and container tare weight.

5.1.4 Shipment release message

Shipment Release Message is a document sent to the consignee and/or notify party by the carrier informing them that the shipment can now be released from its current location and transferred to the consignee on gate-out.

5.1.5 Transportation document

Transportation Document is a document that governs the terms of carriage between shipper and carrier. The most common types of transportation documents include:

- Original Bill of Lading
- Sea Waybill (Straight Bill of Lading)
- Express Bill of Lading

5.1.6 Arrival notice

Arrival Notice is a notification to relevant parties (often the consignee and/or notify party) about the estimated arrival time of the shipment.

5.2 Event Type

Event Type in the Shipment Journey is the active occurrence being reported on. For a Shipment Journey, several event types exist. Some have a similar meaning but different ties to the associated document.

5.2.1 Received

Received is the event associated with receiving a document or a set of information constituting a document type. A document is deemed received when it is registered by the receiving party.

5.2.2 Confirmed

A document or request is confirmed once an affirmative message is registered and sent from the confirming party.

5.2.3 Issued

A document is issued once it is released or made available to the receiving party by the issuing party.

5.2.4 Approved

A document is approved once the approving party has sent an affirmative message to the party requesting the approval.

5.2.5 Submitted

A document is submitted once the document is sent from the submitting party to the receiving party.

5.2.6 Surrendered

A transportation document is surrendered once the possession/ownership of the document has been transferred from the customer to the carrier (normally in return for cargo release).

5.2.7 Rejected

Most information types sent or submitted to the carrier can be rejected, often due to commercial limitations, missing or incorrect information.

5.2.8 Pending approval

A document "pending approval" is awaiting the approval from the approving party. This status remains constant until the Information Type becomes "approved" or "rejected".