



Shipping Message Design Group

Obsolete or relevant –

Does UN/EDIFACT have a future for the maritime industry?

Profile Heiko Meyer



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- **Apprenticeship as Forwarding agent**
- **Diplom-Ökonom (studies in economics at University of Oldenburg (Northern Germany))**
- **DAKOSY 1982 – 1987 (systems and business analyst)**
- **Hapag-Lloyd 1987 – 1995 (EDI Executive)**
- **DEDIG / DEPRO German EDI Association 1996 – 1997 Managing Director**
- **Freelancer EDI consultant 1998 - today**
- **member of international and national working groups (UN/EDIFACT, UN/CEFACT, DIN, SMDG)**

- **40 years experience in EDI and standardization**
- **Expertise in maritime industry, transport and logistics (supply chain)**

UN/EDIFACT standardization



- EDIFACT standard provides:
 - a set of syntax rules to structure data between various branches
 - an interactive exchange protocol (I-EDI)
 - standard messages which allow multi-country and multi-industry exchange
- Multi-functional within a company and between various industries
 - Production
 - Sales
 - Finance
 - Logistics

UN/EDIFACT standardization



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- Globalisation needs standardization (differences in language, culture, business process etc.)
- Standard on highest possible level
- UNSM (United Nations Standard Message) and its subsets widely utilized globally
- Messages are stable with less changes
- Knowledge common and widespread
- Mature and well established
- Business process (individual vs. standard)
- Investment protection
- Classic EDI vs. new technology (API/WebService, Blockchain)

Why standardization?



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- Overcoming of incompatibility
- communication under consideration of
 - different business processes, different branches and companies (Shipping Line, Container Terminal)
 - inhouse applications (Hardware and Software)
 - technical aspects vs. semantical content
 - meeting business requirements
 - understandable and easy to implement
 - neutral (hardware, software)
 - clearly structured
 - generic vs. specified
 - multifunctional

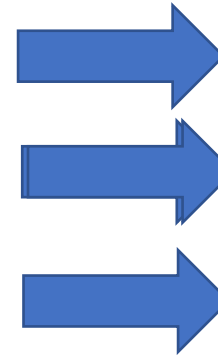
UN/EDIFACT standardization

OSI 7 layer scheme



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7	Application Layer	Human-computer interaction layer, where applications can access the network services
6	Presentation Layer	Ensures that data is in a usable format and is where data encryption occurs
5	Session Layer	Maintains connections and is responsible for controlling ports and sessions
4	Transport Layer	Transmits data using transmission protocols including TCP and UDP
3	Network Layer	Decides which physical path the data will take
2	Data Link Layer	Defines the format of data on the network
1	Physical Layer	Transmits raw bit stream over the physical medium



- ISO 9735 – 10:2014 syntax rules version 4**
UN/EDIFACT Directories (twice a year)
- **Message Type Directory (UNSM)**
 - **Composite Data Element Directory**
 - **Simple Data Element Directory**
 - **Code List Directory**

Developped by UNECE/CEFACT

ISO 7372 TDED
Trade Data Elements Directory with
definitions of Data Elements

MIG Message Implementation Guide

Coverage of EDIFACT in various branches



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- EDIFACT (neutral, all branches)
- SMDG (maritime) (BAPLIE 3.1 D13B, Container messages etc.)
- ANSI X.12 (North America in various industries)
- CEFIC (Chemical industry)
- EANCOM (GS1, Trade, Retail)
- EDIFICE (Electronic Industry)
- EDIGAS (Energy)
- HIPAA (Health Insurance Portability and Accountability Act)
- HL7 (Health)
- IATA Cargo-IMP (Airfreight)
- IATA PADIS (Airline passenger)
- NCPDP SCRIPT (US National Council for Prescription Drug Programs)
- ODETTE (Car Manufacturing)
- ROSETTA (Electronics and computer)
- SAP IDOC (Proprietary application)
- SEF (Standard Exchange format, EDI of business documents)
- TRADACOMS (UK, Trading Data Communication, retail)

EDIFACT VERMAS message (example)



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UNB+UNOC:3+COMSUP:14+SHIPPINGLINE+220504:0715+135475'
UNH+46423407+VERMAS:D:16A:UN'
BGM+VGM+CVGM202205040010::000001+9'
DTM+137:202205040715:203'
NAD+TB+CNES000251:86++Nestle Waters Marketing+34-40 Rue Guynemer:92130:34+Issy Les Moulineaux++92130+FR'
CTA+IC+:Christophe Arnould'
COM+0141236866:TE'
EQD+CN+FANUI724060+42GP+2'
RFF+BN:28106542'
RFF+ADW:CVGM202205040010'
LOC+76+FRFOS:181:6:Fos-sur-Mer+FR:162:5'
MEA+AAE+VGM+KGM:24540.00'
DOC+SHP:VGM:306'
NAD+SPC+CNES000251:86++Nestle Waters Marketing+34-40 Rue Guynemer:92130:34+Issy Les Moulineaux++92130+FR'
CTA+RP+:Christophe Arnould'
DOC+SM2:VGM:306'
UNT+16+46423407'
UNZ+1+135475'

API (System-to-System)



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- For information purposes
- Time critical
- Short message
- Q & A
- Immediate response without human intervention

https://app.swaggerhub.com/apis/dcsaorg/JIT_EVENT_HUB/1.1.0#/Events/get_vl_events

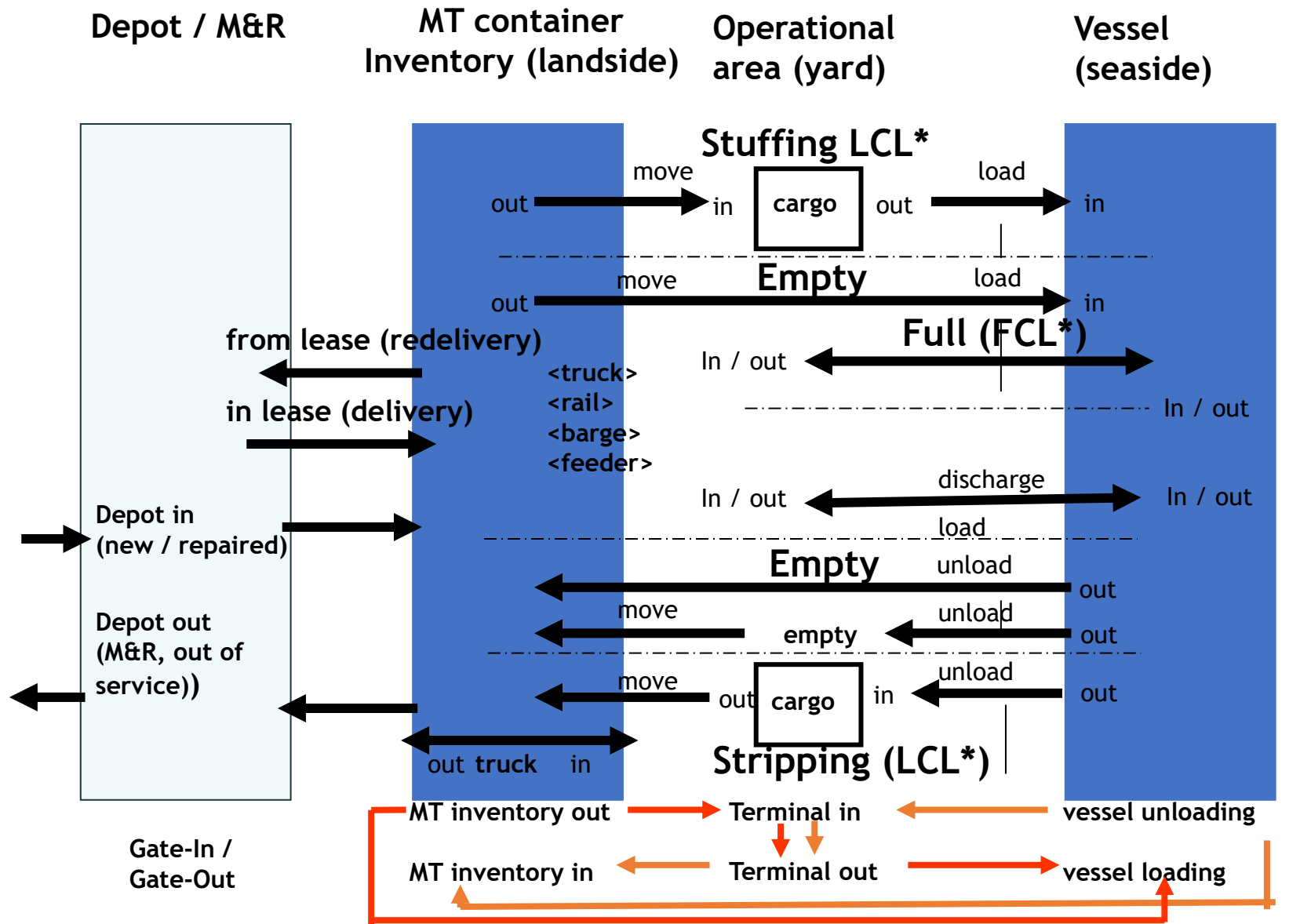
<https://api-portal.hlag.com/#/products>

- Cut-Off Dates
- Equipments
- Inland Transportation Status
- Port Schedule
- Verified Gross Mass
- Voyage Schedule

Container scenario at Container Terminal



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UN/EDIFACT standard



- Yes, EDIFACT will survive, but depending on technical infrastructure, internal applications and IT policy
- Yes, EDIFACT will survive, but in coexistence with modern techniques (API as system-to-system communication)
- Replacement of EDIFACT only when there is a clear benefit (maritime is a slow industry)

Thank you





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Thank you