

Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) – part 2



UN/EDIFACT

1. Example
2. Who „makes“ EDIFACT ?
3. Other standards
4. The ISO standard 9735
5. Message structure (ISO 9735-2)
6. The UN documents
7. Subsets
8. The implementation guide



UN/EDIFACT

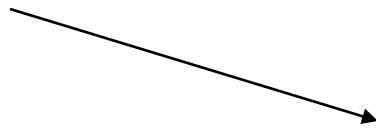
UNTDID = UN Trade Data Interchange Directory

= One zip-file (“d03a.zip”), containing several other zip-files containing a number of ASCII-files

content has changed over the years – for example:

- 1991: only the message and segments descriptions
- 1997: in addition lots of explaining documents
- 2003: again only the message and segment descriptions

	Audit97a	txt	1.496
	Contentd	97a	7.013
	D100_d	97a	16.064
	edcd	zip	16.001
	eded	zip	31.765
	edmd	zip	828.372
	edsd	zip	22.349
	idcd	zip	7.105
	idmd	zip	13.408
	idsd	zip	6.851
	Licenagr	txt	2.572
	Part2_d	zip	31.527
	Part3_d	zip	8.152
	Part4_d	zip	82.961
	Readme	txt	2.436
	uncl	zip	188.780
	unsl	zip	9.123



- Message Directory
- Segment Directory
- Composite Data Element Directory
- Data Element Directory

- Code Lists
- Syntax Rules
- Implementation Guidelines (= explanation of the syntax rules)
- Design Guidelines (= explanation of the message design)
- Interchange Agreement (= sample EDI contract)



	Audit97a	txt	1.496
	Contentd	97a	7.013
	D100_d	97a	16.064
	edcd	zip	16.001
	eded	zip	31.765
	edmd	zip	828.372
	edsd	zip	22.349
	idcd	zip	7.105
	idmd	zip	13.408
	idsd	zip	6.851
	Licenagr	txt	2.572
	Part2_d	zip	31.527
	Part3_d	zip	8.152
	Part4_d	zip	82.961
	Readme	txt	2.436
	uncl	zip	188.780
	unsl	zip	9.123

Let's have a look into
the UN/EDIFACT
directory D03A !



UN/EDIFACT directory D03A

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

It says, that this directory was officially approved by an audit team.

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

UN/EDIFACT directory D03A

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

A lot of information about further documents and internet links for downloading them.

Attention: The address www.edifact-wg.org is no longer valid !!

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

It says, that you are free to use it,
but:

„Unless you have received written
permission from the UN, you may
NOT:

1. Sell, sub-license, rent, lease,
or assign the Directory; and
2. Modify the Directory and
distribute it.“

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

unzip instructions

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

UN/EDIFACT directory D03A

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

The

„UN/EDIFACT standard directory“

UN/EDIFACT directory D03A

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

xDMD = message directory

xDSD = segment directory

xDCD = composite data elem. dir.

xDED = element directory

where

x = E means „batch directory“

x = I means „interactive directory“

„Interactive EDI (I-EDI) is characterized by the following:

- a formalized association between the two parties using a dialogue;
- the ability, dynamically, to direct the course of the I-EDI transaction, depending upon the result of earlier exchanges within the dialogue;
- short response times;
- all the messages exchanged within one dialogue relate to the same business transaction;
- a transaction is a controlled set of dialogues which can take place between two or more parties.“

source: ISO 9735-3, p. VI

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

UNCL.ZIP

Attention:

The message directory xDMD does not include service segments (tags beginning with Uxx).

They are defined in ISO 9735-10 ! (except UNA, which is defined in ISO 9735-1, Annex A)

AUDIT03A.TXT

CONTENT.TXT

D100-Introduction.TXT

D200-Glossary.TXT

LICENAGR.TXT

README.TXT

EDCD.ZIP

EDED.ZIP

EDMD.ZIP

EDSD.ZIP

IDMD.ZIP

IDSD.ZIP

IDCD.ZIP

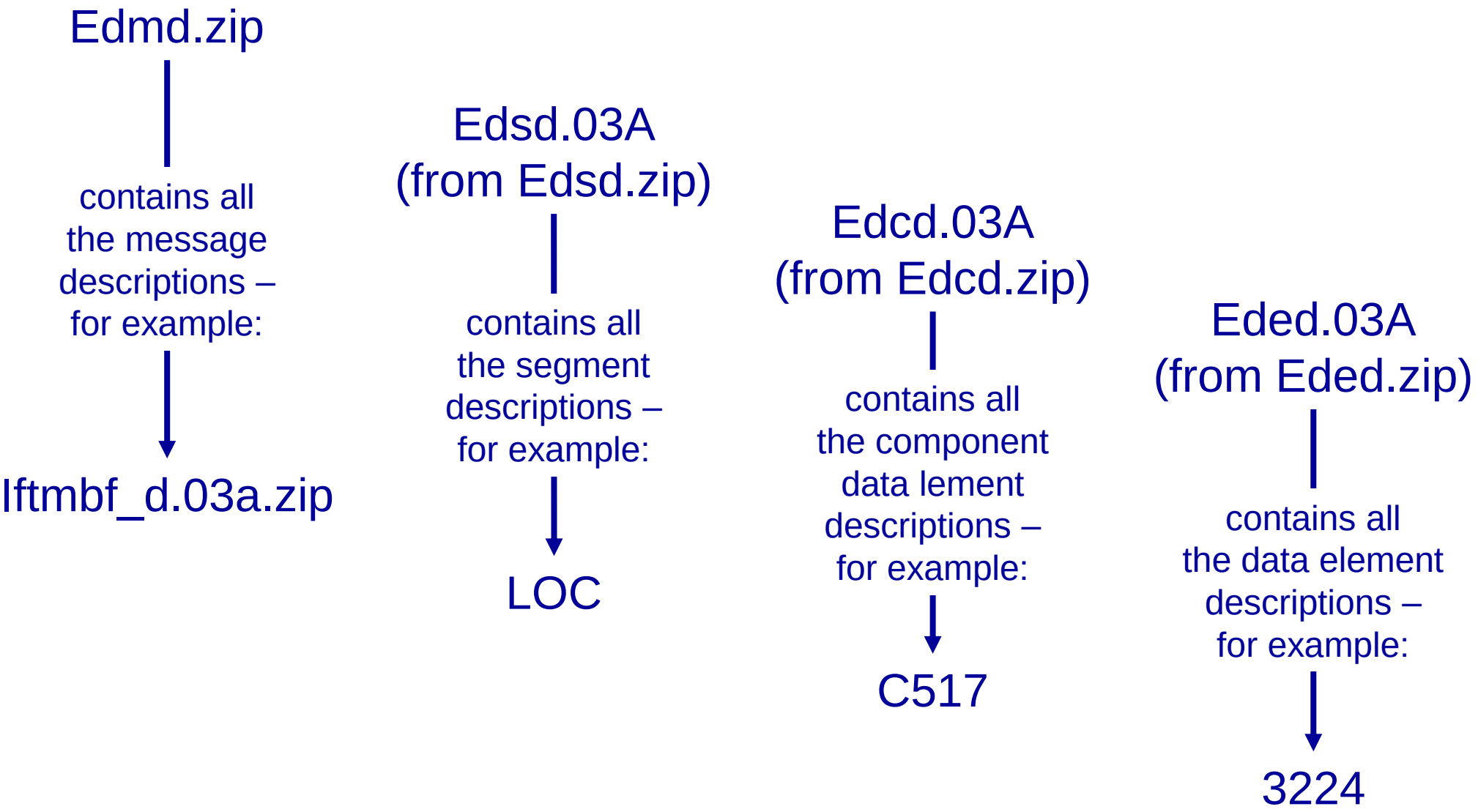
UNCL.ZIP

The UN code list

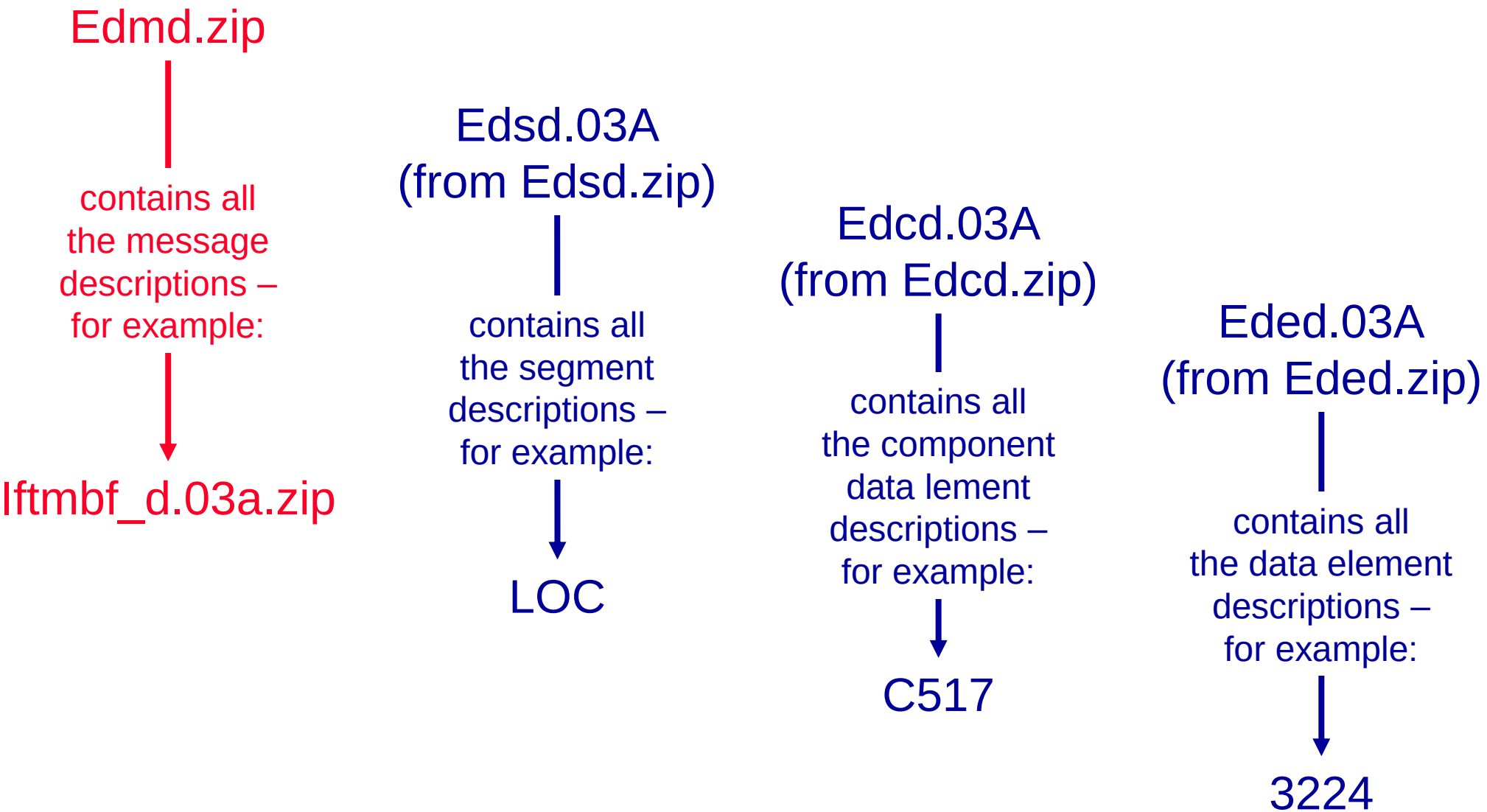
UN/EDIFACT directory D03A

PART 1	INTRODUCTION	d100-introduction.txt
PART 2	TERMS AND DEFINITIONS	
	Glossary	d200-glossary.txt
PART 3	UNITED NATIONS DIRECTORIES FOR ELECTRONIC DATA INTERCHANGE FOR ADMINISTRATION, COMMERCE AND TRANSPORT	
Chapter 1	Introduction	content.txt
Chapter 2	Message type directory xDMD	xdmd.zip (1) (2)
1.	Indexes	
1.1	Index of message types by code	xdmdi1.03A
1.2	Index of message types by name	xdmdi2.03A
2.	Message type specifications	yyyyyy_D.03A
	(yyyyyy = message type; for example, invoic_D.03A contains the specification for the invoice message)	

Chapter 3	Segment directory xDSD	xdsd.zip (1) (3)
1.	Indexes	
1.1	Index of segments by tag	xdsdi1.03A
1.2	Index of segments by name	xdsdi2.03A
2.	Segment specifications	xdsD.03A
Chapter 4	Composite data element directory xDCD	xdcd.zip (1) (4)
1.	Indexes	
1.1	Index of composites by tag	xdcdi1.03A
1.2	Index of composites by name	xdcdi2.03A
2.	Composite specifications	xdcD.03A
Chapter 5	Data element directory EDED	eded.zip (1) (5)
1.	Indexes	
1.1	Index of data elements by tag	ededi1.03A
1.2	Index of data elements by name	ededi2.03A
2.	Data element specifications	edeD.03A
Chapter 6	Code lists	uncl.zip (1) (6)
1.	Code list UNCL	uncl.03A



Message – segment – component data element – data element



Message – segment – component data element – data element

Let's have a look into
lftmbf_d.03a !
Which information can
be transmitted ?



lftmbf_d.03a

0360 Segment group 7: TDT-DTM-TSR-SG8-SG9

A group of segments to indicate details of the movement of goods such as mode and means of transport, locations, departure, and arrival date(s) and time(s).

0370 TDT, Transport information

A segment to indicate information related to a certain stage of the transport, such as mode, means and carrier.

0380 DTM, Date/time/period

A segment to indicate departure/arrival date and time.

0390 TSR, Transport service requirements

A segment to identify contract, conditions of carriage, services, priority requirements for this stage of transport.

0400 Segment group 8: LOC-DTM

A group of segments to specify a location and date/time related to this leg of transport.

0410 LOC, Place/location identification

A segment to indicate a location such as origin, destination, stop off, etc. related to this leg of transport.

0420 DTM, Date/time/period

A segment to specify a date/time related to the location, such as arrival date/time of a means of transport at a specific location.

0430 Segment group 9: RFF-DTM

A group of segments to specify an additional reference related to the stage of the transport.

0440 RFF, Reference

A segment to specify the additional reference.

0450 DTM, Date/time/period

A segment to identify date and time relating to the reference.

d03a.zip -> edmd.zip -> lftmbf_d.03a -> Chapter 4.1 „Segment clarification“

0360	----- Segment group 7 -----	C	99-----+	
0370	TDT Transport information	M	1	
0380	DTM Date/time/period	C	9	
0390	TSR Transport service requirements	C	9	
0400	----- Segment group 8 -----	C	99-----+	
0410	LOC Place/location identification	M	1	
0420	DTM Date/time/period	C	9-----+	
0430	----- Segment group 9 -----	C	9-----+	
0440	RFF Reference	M	1	
0450	DTM Date/time/period	C	1-----++	



For an explanation
see ISO 9735-1,
Annex B !

0360	----- Segment group 7 -----	C	99-----+
0370	TDT Transport information	M	1
0380	DTM Date/time/period	C	9
0390	TSR Transport service requirements	C	9
0400	----- Segment group 8 -----	C	99-----+
0410	LOC Place/location identification	M	1
0420	DTM Date/time/period	C	9-----+
0430	----- Segment group 9 -----	C	9-----+
0440	RFF Reference	M	1
0450	DTM Date/time/period	C	1-----++

TDT+...'DTM+...'TSR+...'TSR+...'LOC+...'LOC+...'DTM+...'LOC+...'RFF+...'DTM+...'RFF+...'

TDT+...'DTM+...'TSR+...'TSR+...'DTM+...'DTM+...'DTM+...'LOC+...'RFF+...'DTM+...'RFF+...'

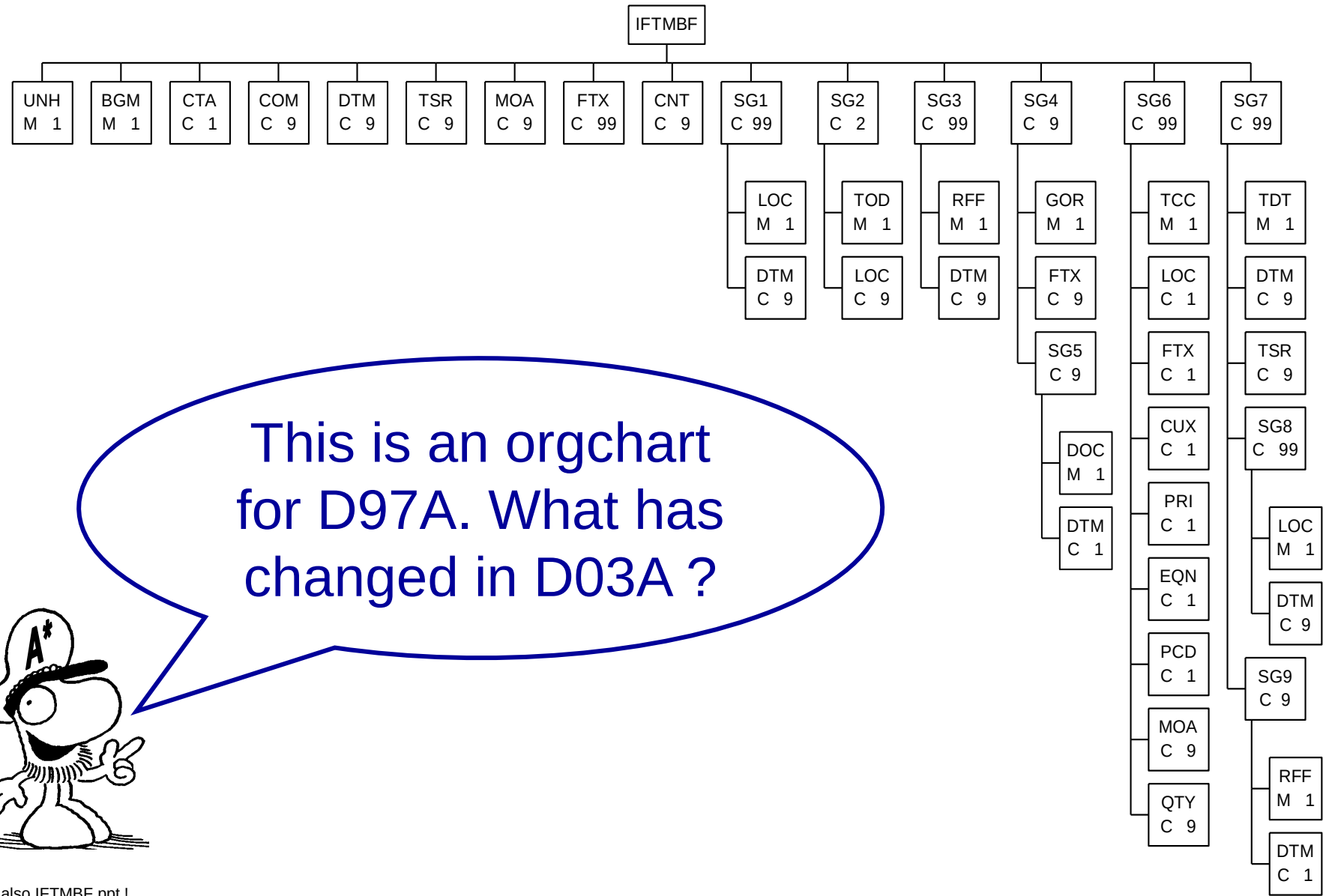
TDT+...'TDT+...'TSR+...'TSR+...'LOC+...'LOC+...'DTM+...'LOC+...'RFF+...'DTM+...'DTM+...'

0360	----- Segment group 7 -----	C	99-----+
0370	TDT Transport information	M	1
0380	DTM Date/time/period	C	9
0390	TSR Transport service requirements	C	9
0400	----- Segment group 8 -----	C	99-----+
0410	LOC Place/location identification	M	1
0420	DTM Date/time/period	C	9-----+
0430	----- Segment group 9 -----	C	9-----+
0440	RFF Reference	M	1
0450	DTM Date/time/period	C	1-----++

TDT+...'DTM+...'TSR+...'TSR+...'LOC+...'LOC+...'DTM+...'LOC+...'RFF+...'DTM+...'RFF+...'

TDT+...'DTM+...'TSR+...'TSR+...'DTM+...'DTM+...'DTM+...'LOC+...'RFF+...'DTM+...'RFF+...'

TDT+...'TDT+...'TSR+...'TSR+...'LOC+...'LOC+...'DTM+...'LOC+...'RFF+...'DTM+...'DTM+...'



This is an orgchart for D97A. What has changed in D03A ?



see also IFTMBF.ppt !

1

0360 Segment group 7: TDT-DTM-TSR-SG8-SG9

A group of segments to indicate details of transport, locations, departure, and arrival.

0370 TDT, Transport information

A segment to indicate information related to the mode of transport.

0380 DTM, Date/time/period

0390 TSR, Transport service requirements

0400 Segment group 8

0410 LOC, Place/location identification

0420 DTM, Date/time/period

0430 Segment group 9

0440 RFF, Reference

0450 DTM, Date/time/period

2

----- Segment group 7 -----

0370 TDT Details of transport

0380 DTM Date/time/period

0390 TSR Transport service requirements

----- Segment group 8 -----

0400 LOC Place/location identification

0410 * DTM Date/time/period

----- Segment group 9 -----

0430 RFF Reference

0440 DTM Date/time/period

3

SG7
C n

TDT
M 1

DTM
C n

TSR
C n

SG8
C n

LOC
M 1

DTM
C n

SG9
C n

RFF
M 1

DTM
C 1

ent of goods such as mode and means of transport and time(s).

in stage of the transport, such as

---	C	99	-----	+
	M	1		
	C	9		
	C	9		
---	C	99	-----	+
	M	1		
	C	9	-----	+
---	C	9	-----	+
	M	1		
	C	1	-----	+

requirements

of transport.

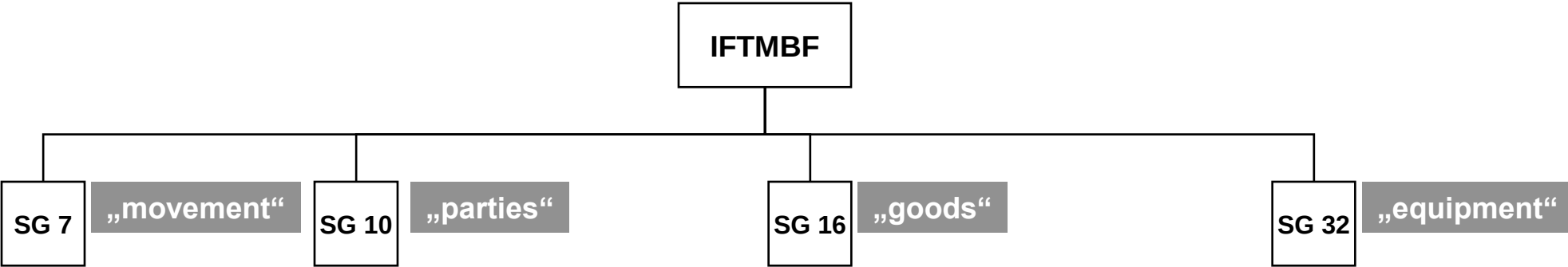
related to

te/time of a

ce related to the stage of the

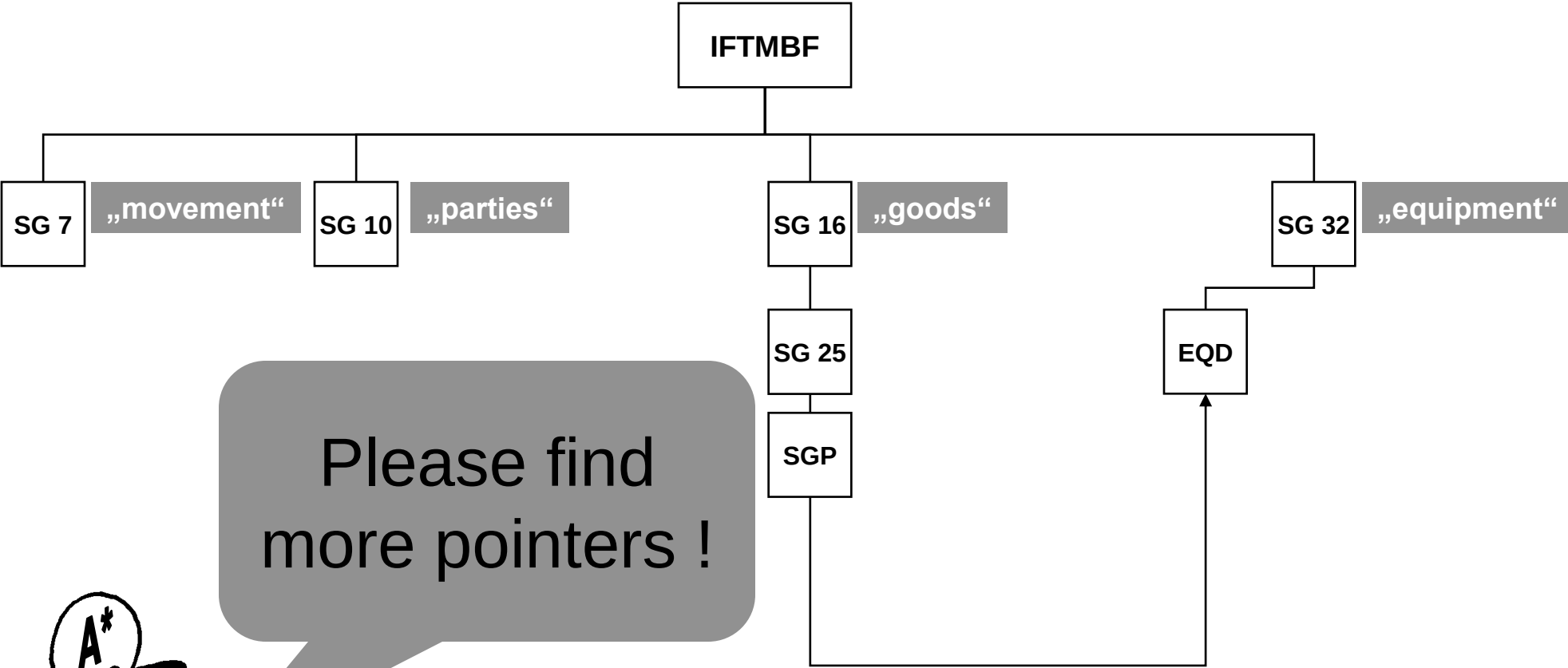
reference.

1:Text - 2: ASCII graphics - 3: Orgchart graphics

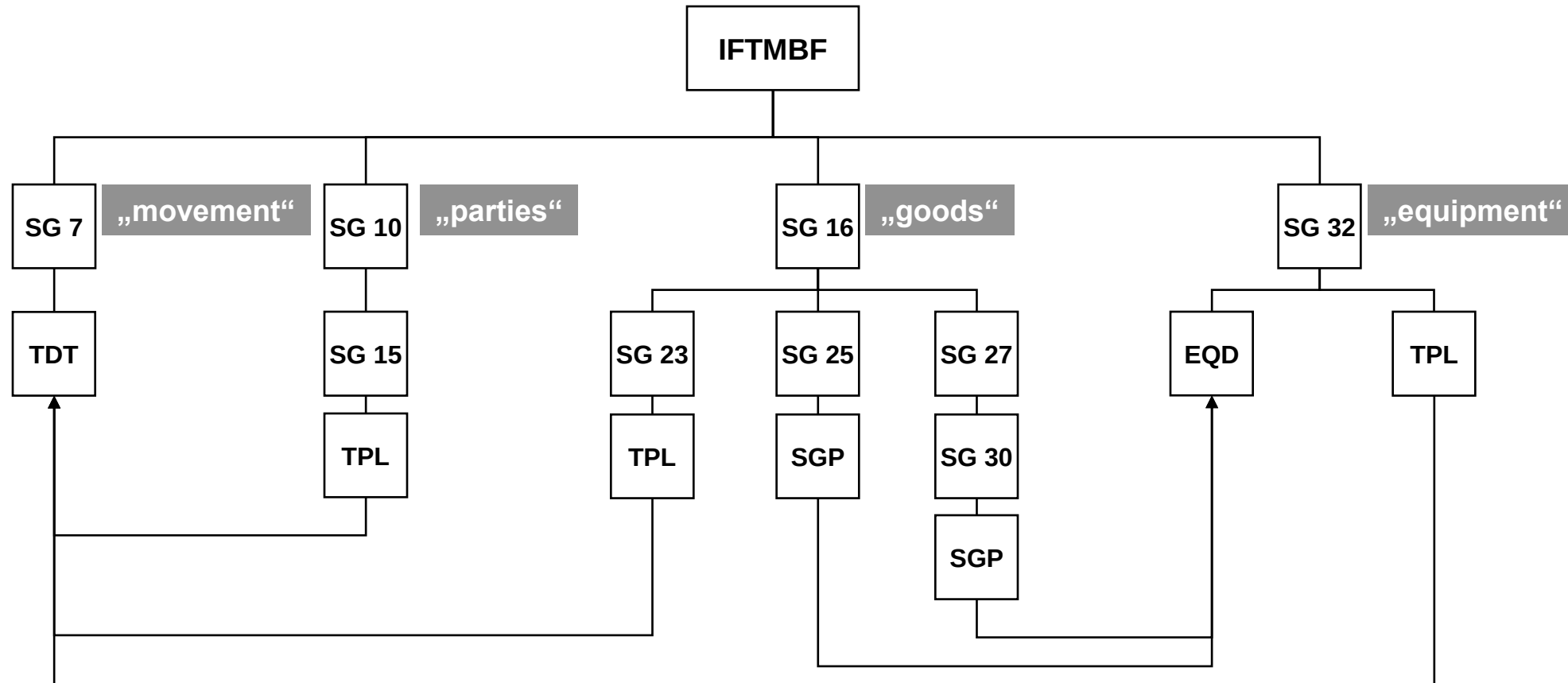


Where is the problem ???





Pointer segments



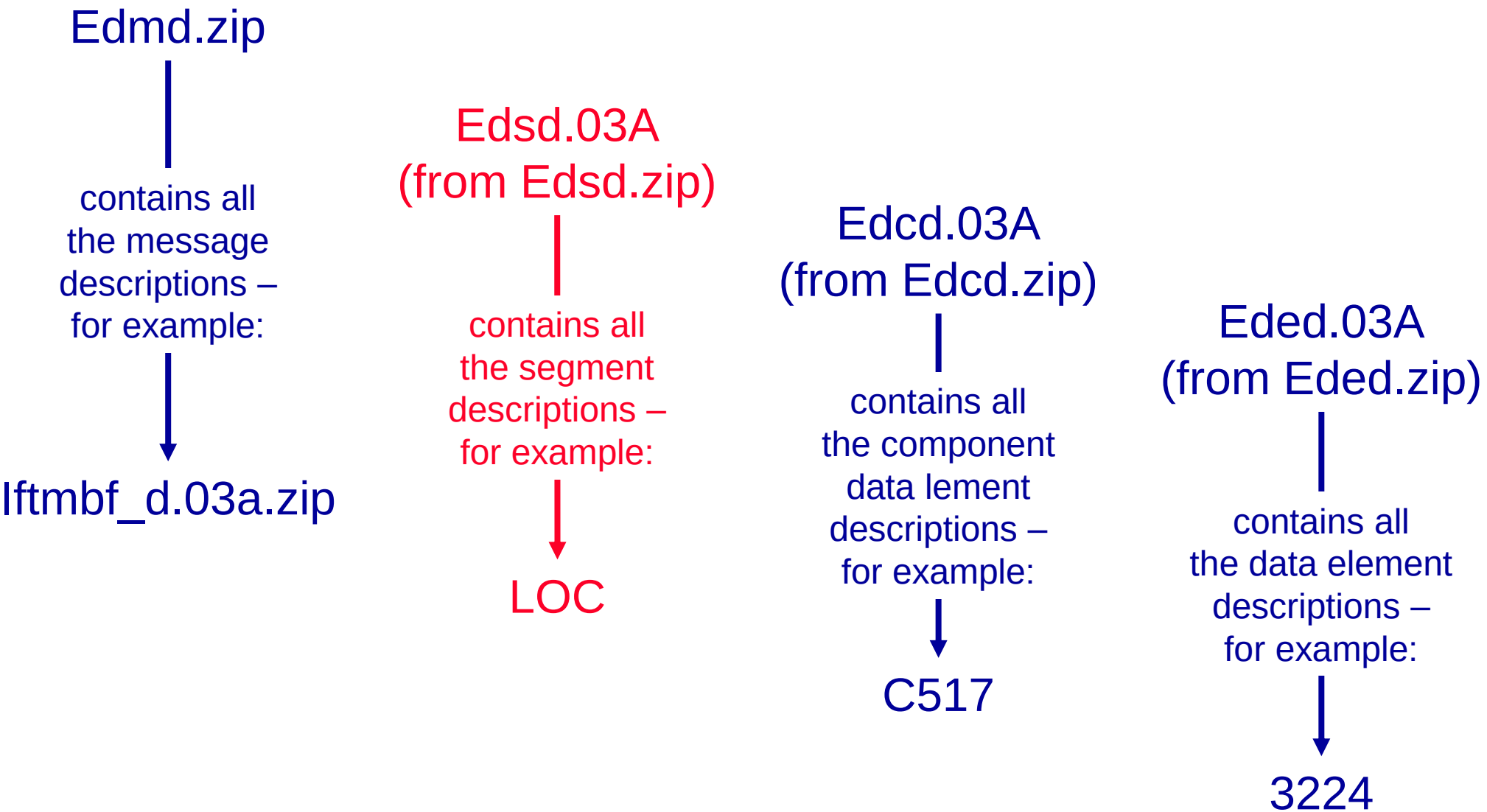
TPL TRANSPORT PLACEMENT

Function: To specify placement of goods or equipment in relation to the transport used. The segment serves as a pointer to the TDT segment group.

SGP SPLIT GOODS PLACEMENT

Function: To specify the placement of goods in relation to equipment

Pointer segments



Message – segment – component data element – data element

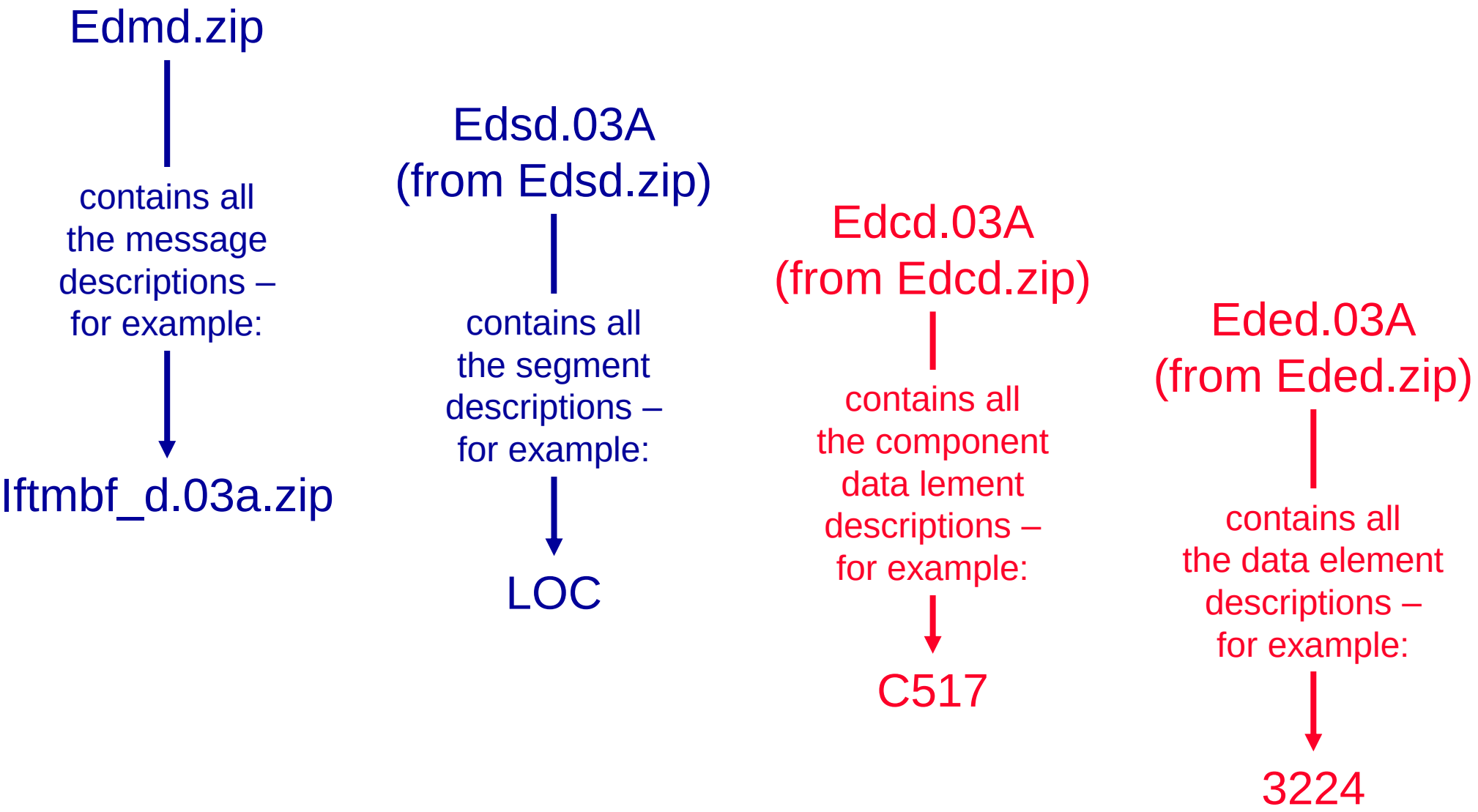
		LOC	PLACE/LOCATION IDENTIFICATION				
		Function: To identify a place or a location and/or related locations.					
"M"andatory "C"onditional		010	3227	LOCATION FUNCTION CODE QUALIFIER	M	1	an..3
	stand alone data element	020	C517	LOCATION IDENTIFICATION	C	1	
		3225	Location name code	C		an..35	
		1131	Code list identification code	C		an..17	
		3055	Code list responsible agency code	C		an..3	
		3224	Location name	C		an..256	
composite data element	030	C519	RELATED LOCATION ONE IDENTIFICATION	C	1		
		3223	First related location name code	C		an..25	
		1131	Code list identification code	C		an..17	
	!	3055	Code list responsible agency code	C		an..3	
		3222	First related location name	C		an..70	
Please find the code for „IMO“ !	040	C553	RELATED LOCATION TWO IDENTIFICATION	C	1		
		3233	Second related location name code	C		an..25	
		1131	Code list identification code	C		an..17	
		3055	Code list responsible agency code	C		an..3	
		3232	Second related location name	C		an..70	
	050	5479	RELATION CODE	C	1	an..3	

* **3055** Code list responsible agency code [C]

Desc: Code specifying the agency responsible for a code list.

Repr: an..3

- 1 CCC (Customs Co-operation Council)
Customs Co-operation Council (now World Customs Organization).
- 2 CEC (Commission of the European Communities)
Generic: see also 140, 141, 142, 162.
- 3 IATA (International Air Transport Association)
The airline industry's international organisation.
- 4 ICC (International Chamber of Commerce)
International Chamber of Commerce.
- 5 ISO (International Organization for Standardization)
International Organization of Standardization.
- 6 UN/ECE (United Nations - Economic Commission for Europe)
United Nations Economic Commission for Europe.



Message – segment – component data element – data element

from Edcd.03A

C517 LOCATION IDENTIFICATION

Desc: Identification of a location by code or name.

010	3225	Location name code	C	an..35
020	1131	Code list identification code	C	an..17
030	3055	Code list responsible agency code	C	an..3
040	3224	Location name	C	an..256

from Eded.03A

3224 Location name

[C]

Desc: Name of the location.

Repr: an..256

-> no new information in comparison to Edsd.zip !

Which information can be transmitted with

- the segments ADR, COM, DTM, MEA, SGP, TPL and
- the messages BAPLIE, CODECO, COPARN, CUSDEC?



Which information can be transmitted ?

Edmd.zip
|
contains all
the message
descriptions –
for example:
↓
lftmbf_d.03a.zip

Edsd.03A
(from Edsd.zip)

|
contains all
the segment
descriptions –
for example:
↓

LOC

... but not for the service
segments Uxx !

They are described in ISO
9735-10 – with the exception
of UNA, which is described
in ISO 9735-1, Annex A !

Let's have a look into it ...

Which information is
transmitted with the
message header UNH and
the message trailer UNT ?

Message – segment – component data element – data element

MESSAGE REFERENCE NUMBER

MESSAGE IDENTIFIER (Message type, Message version number, Message release number, Controlling agency, coded, Association assigned code, Code list directory version number, Message type sub-function identification)

COMMON ACCESS REFERENCE

STATUS OF THE TRANSFER (Sequence of transfers, First and last transfer)

MESSAGE SUBSET IDENTIFICATION (Message subset identification, Message subset version number, Message subset release number, Controlling agency, coded)

MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION (Message implementation guideline identification, Message implementation guideline version number, Message implementation guideline release number, Controlling agency, coded)

SCENARIO IDENTIFICATION (Scenario identification, Scenario version number, Scenario release number, Controlling agency, coded)

source: ISO 9735-10

Service segments – example: UNH (message header)

NUMBER OF SEGMENTS IN A MESSAGE

MESSAGE REFERENCE NUMBER

source: ISO 9735-10

Service segments – example: UNT (message trailer)

POS	REP	S	Name
010	an1	M	COMPONENT DATA ELEMENT SEPARATOR
020	an1	M	DATA ELEMENT SEPARATOR
030	an1	M	DECIMAL MARK
040	an1	M	RELEASE CHARACTER
050	an1	M	REPETITION SEPARATOR
060	an1	M	SEGMENT TERMINATOR

source: ISO 9735-1, Annex A

Service segments – example: UNA (service string advice)

1. Example
2. Who „makes“ EDIFACT ?
3. Other standards
4. The ISO standard 9735
5. Message structure (ISO 9735-2)
6. The UN documents
7. Subsets
8. The implementation guide

see also chapter 7.2 „Definition
of a Sub-set of a UNSM“ in
D4232_D.TXT of D97A.ZIP !
(-> EDIFACT.DOC !)



Subset

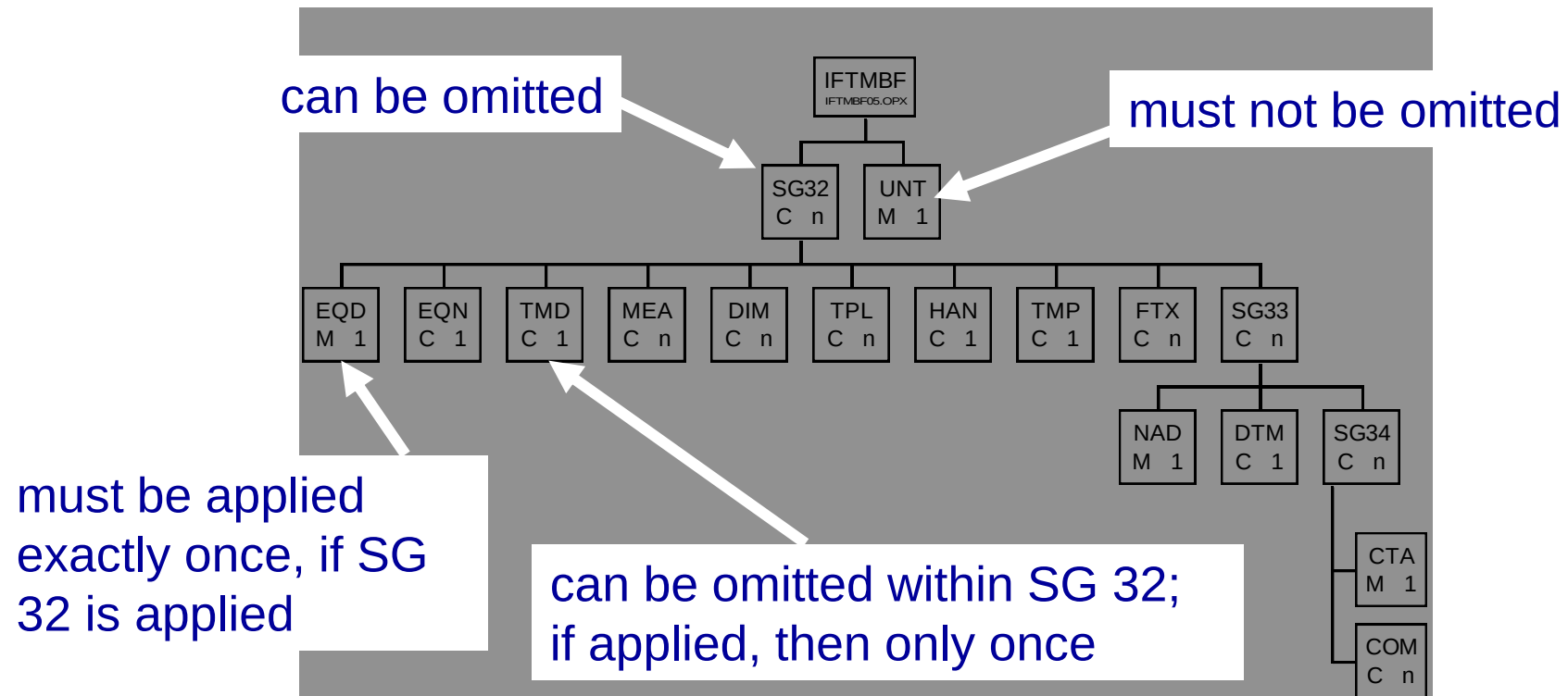
„In order to be generally useful in all application areas within its defined function, it is evident that a UNSM will allow for more data than will normally be used in any single message. This might discourage some prospective users fearing a large overhead; however, since **sub-sets** of message types can be defined, messages can be reduced in size to meet user requirements.“

source: D00A, D410.TXT

UNSM = UN standard message

Subset requirements: (see also chapter 7.2 in D4232_D.97A and ISO 9735-1, chapter 8)

- no inset of new segments or data elements
- no modification of existing segments (structure as well as sequence, "mandatory/conditional")
- multiple application of segments according to the standard
- apart from the mandatory segments on level one, any number of segments can be omitted
- if conditional segment groups are applied, at least its mandatory segments must be applied



CEFIC	Chemische Industrie
EANCOM	Konsumgüterindustrie
EDIBDB	Baustoffbranche
EDIFICE	High Tech Industrie
EDIFOR	Speditionsbranche
EDIFURN	Möbelbranche
EDIG@S	Erdgasbranche
EDILEKTRO	Elektroindustrie / Elektrogroßhandel
EDILIBE	Buchhandel
EDITEC	Sanitärbranche
EDITEX	Textilindustrie
EDITRANS	Transportwirtschaft
EDIwheel	Reifen- und Räderhersteller
ODETTE	Automobilindustrie
RINET	Versicherungswirtschaft
ODA/ODIF	Allgemeine Dokumentenformate

Quelle: de.wikipedia.org/wiki/EDIFACT

EDIFACT subsets

Which of the following message structures are IFTMBF-Subsets ?

(1)

UNH+BGM+DTM+DTM+NAD+LOC+CTA+COM+COM+COM+CTA+COM+NAD+CTA+COM+GID+HAN+HAN+NAD+DTM+NAD+DTM+TPL+MEA+EQN+MEA+EQN+MEA+EQN+SGP+MEA+EQN+MEA+EQN+SGP+MEA+EQN+DGS+FTX+FTX+FTX+CTA+COM+CTA+COM+SGP+MEA+EQN+MEA+EQN+EQD+EQN+TMD+HAN+NAD+DTM+CTA+COM+CTA+COM+UNT

(2)

UNH+BGM+RFF+DTM+RFF+DTM+NAD+LOC+CTA+COM+CTA+COM+NAD+CTA+COM+GID+HAN+NAD+DTM+NAD+DTM+TPL+MEA+EQN+MEA+EQN+MEA+EQN+SGP+MEA+EQN+MEA+EQN+SGP+MEA+EQN+DGS+FTX+FTX+FTX+CTA+COM+CTA+COM+SGP+MEA+EQN+MEA+EQN+EQD+EQN+TMD+HAN+NAD+DTM+CTA+COM+CTA+COM+UNT

(3)

UNH+BGM+NAD+LOC+CTA+COM+CTA+COM+COM+COM+NAD+CTA+COM+GID+HAN+NAD+DTM+SGP+MEA+EQN+MEA+EQN+DGS+FTX+FTX+FTX+CTA+COM+CTA+COM+SGP+MEA+EQN+MEA+EQN+GID+NAD+DTM+SGP+MEA+EQN+EQD+EQN+COM+HAN+NAD+DTM+CTA+COM+CTA+COM+UNT

(4)

UNH+BGM+TOD+LOC+TOD+LOC+CTA+COM+NAD+LOC+CTA+COM+CTA+COM+NAD+CTA+COM+GID+HAN+NAD+DTM+NAD+DTM+SGP+MEA+EQN+MEA+EQN+SGP+MEA+EQN+EQD+EQN+HAN+TMP+NAD+DTM+CTA+EQD+EQN+TMP+HAN+NAD+DTM+DTM+CTA+COM+CTA+COM+UNT

(5)

UNH+BGM+TSR+TSR+TSR+MOA+TCC+LOC+TCC+FTX+TDT+DTM+DTM+LOC+DTM+LOC+LOC+EQD+EQN+DIM+DIM+HAN+TMP+NAD+DTM+CTA+COM+CTA+COM+CTA+EQD+MEA+MEA+MEA+TMP+NAD+CTA+CTA+CTA+EQD+EQN+DIM+DIM+TPL+TPL+NAD+CTA+CTA+CTA+COM+COM+COM+UNT

Which of the following message structures are IFTMBF-Subsets ?

(1)

UNH+BGM+DTM+DTM+NAD+LOC+CTA+COM+COM+COM+CTA+COM+NAD+CTA+COM+GID+HAN+**HAN**+NAD+DTM+NAD+DTM+TPL+MEA+EQN+MEA+EQN+MEA+EQN+SGP+MEA+EQN+MEA+EQN+SGP+MEA+EQN+DGS+FTX+FTX+FTX+CTA+COM+CTA+COM+SGP+MEA+EQN+MEA+EQN+EQD+EQN+TMD+HAN+NAD+DTM+CTA+COM+CTA+COM+UNT

(2)

UNH+BGM+RFF+DTM+RFF+DTM+NAD+LOC+CTA+COM+CTA+COM+NAD+CTA+COM+GID+HAN+NAD+DTM+NAD+DTM+TPL+MEA+EQN+MEA+EQN+MEA+EQN+SGP+MEA+EQN+MEA+EQN+SGP+MEA+EQN+DGS+FTX+FTX+FTX+CTA+COM+CTA+COM+SGP+MEA+EQN+MEA+EQN+EQD+EQN+TMD+HAN+NAD+DTM+CTA+COM+CTA+COM+UNT

(3)

UNH+BGM+NAD+LOC+CTA+COM+CTA+COM+COM+COM+NAD+CTA+COM+GID+HAN+NAD+DTM+SGP+MEA+EQN+MEA+EQN+DGS+FTX+FTX+FTX+CTA+COM+CTA+COM+SGP+MEA+EQN+MEA+EQN+GID+NAD+DTM+SGP+MEA+EQN+EQD+EQN+**COM**+HAN+NAD+DTM+CTA+COM+CTA+COM+UNT

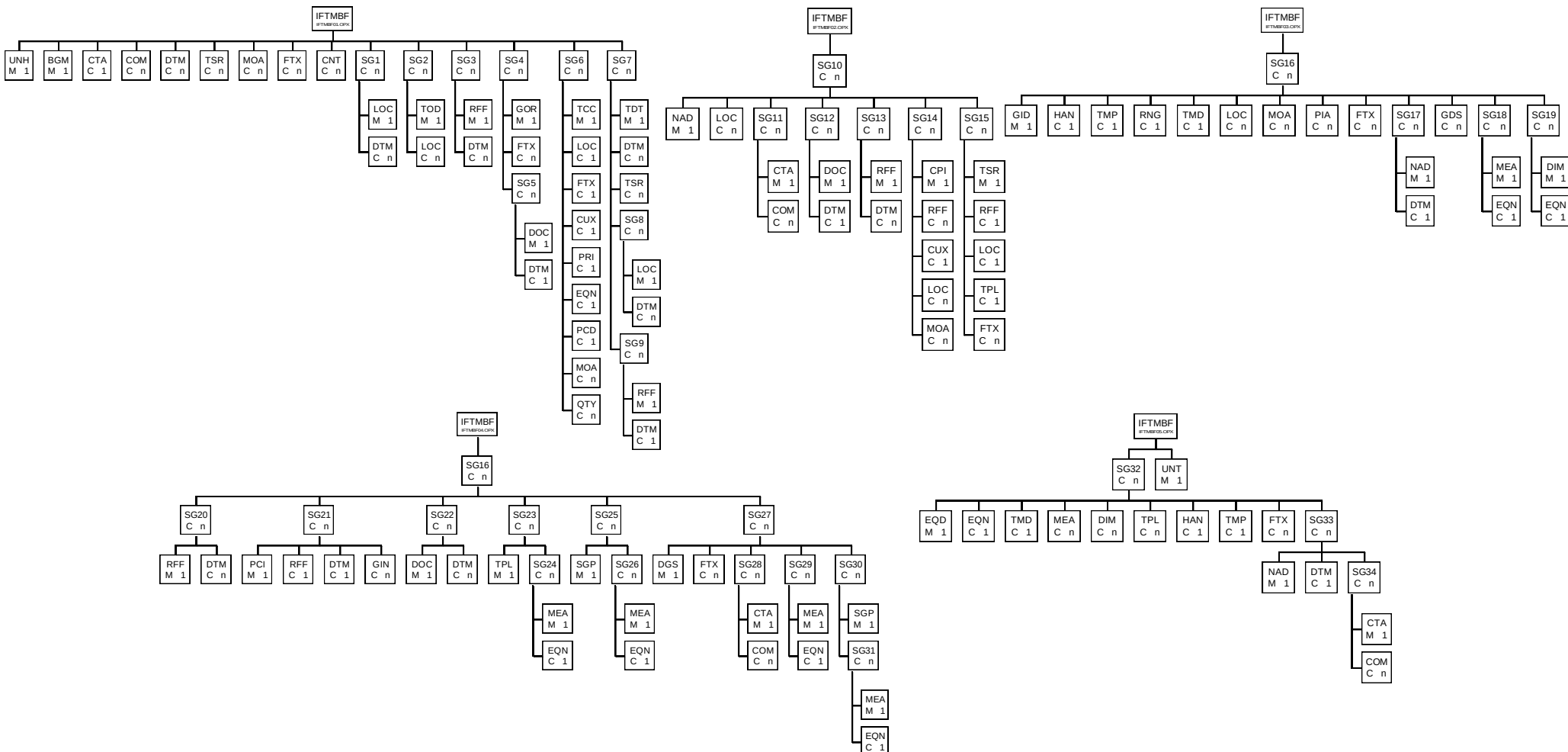
(4)

UNH+BGM+TOD+LOC+TOD+LOC+CTA+COM+NAD+LOC+CTA+COM+CTA+COM+NAD+CTA+COM+GID+HAN+NAD+DTM+NAD+DTM+SGP+MEA+EQN+MEA+EQN+SGP+MEA+EQN+EQD+EQN+HAN+TMP+NAD+DTM+CTA+EQD+EQN+TMP+HAN+NAD+DTM+**DTM**+CTA+COM+CTA+COM+UNT

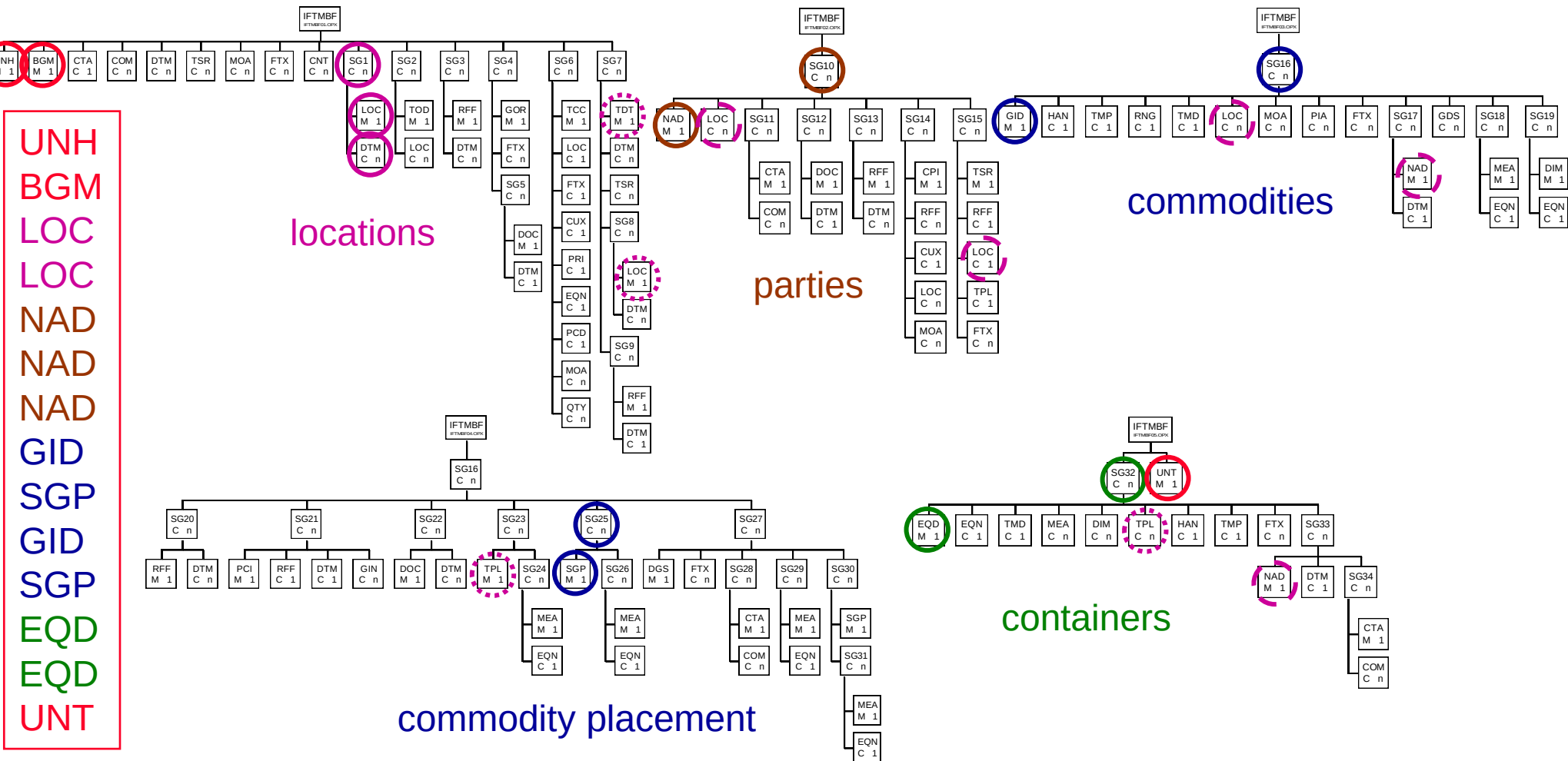
(5)

UNH+BGM+TSR+TSR+TSR+MOA+TCC+LOC+TCC+FTX+TDT+DTM+DTM+LOC+DTM+LOC+LOC+EQD+EQN+DIM+DIM+HAN+TMP+NAD+DTM+CTA+COM+CTA+COM+CTA+EQD+MEA+MEA+MEA+TMP+NAD+CTA+CTA+CTA+EQD+EQN+DIM+DIM+TPL+TPL+NAD+CTA+CTA+CTA+COM+COM+COM+UNT

A customer instructs a shipping company to transport several containers from A to B. They contain several distinct commodities. The receiver of the invoice is not identical with the consignee of the goods. An IFTMBF subset shall be used.



A customer instructs a shipping company to transport several containers from A to B. They contain several distinct commodities. The receiver of the invoice is not identical with the consignee of the goods. An IFTMBF subset shall be used.



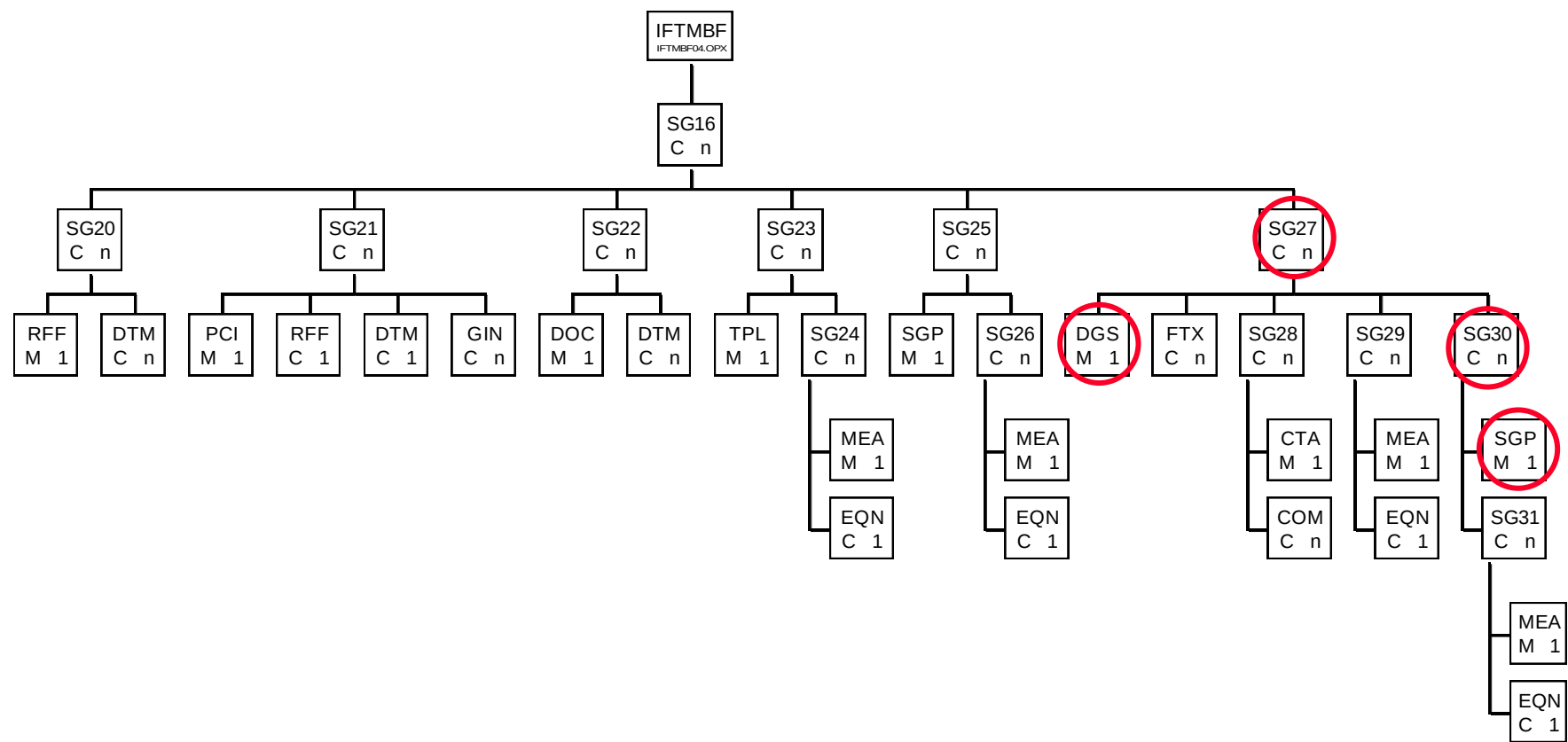
EDIFACT subsets – sample solution (others are also possible !)

How must the subset be changed, if

1. dangerous goods are transported, which may be contained in different containers ?
2. complete containers have different consignees ?
3. the goods inside the containers have different consignees ?
4. some goods shall be loaded into the containers at different locations ?

How must the subset be changed, if

1. dangerous goods are transported, which may be contained in different containers ?
2. complete containers have different consignees ?
3. the goods inside the containers have different consignees ?
4. some goods shall be loaded into the containers at different locations ?



UNH

BGM

LOC

LOC

NAD

NAD

NAD

GID

SGP

GID

DGS

SGP

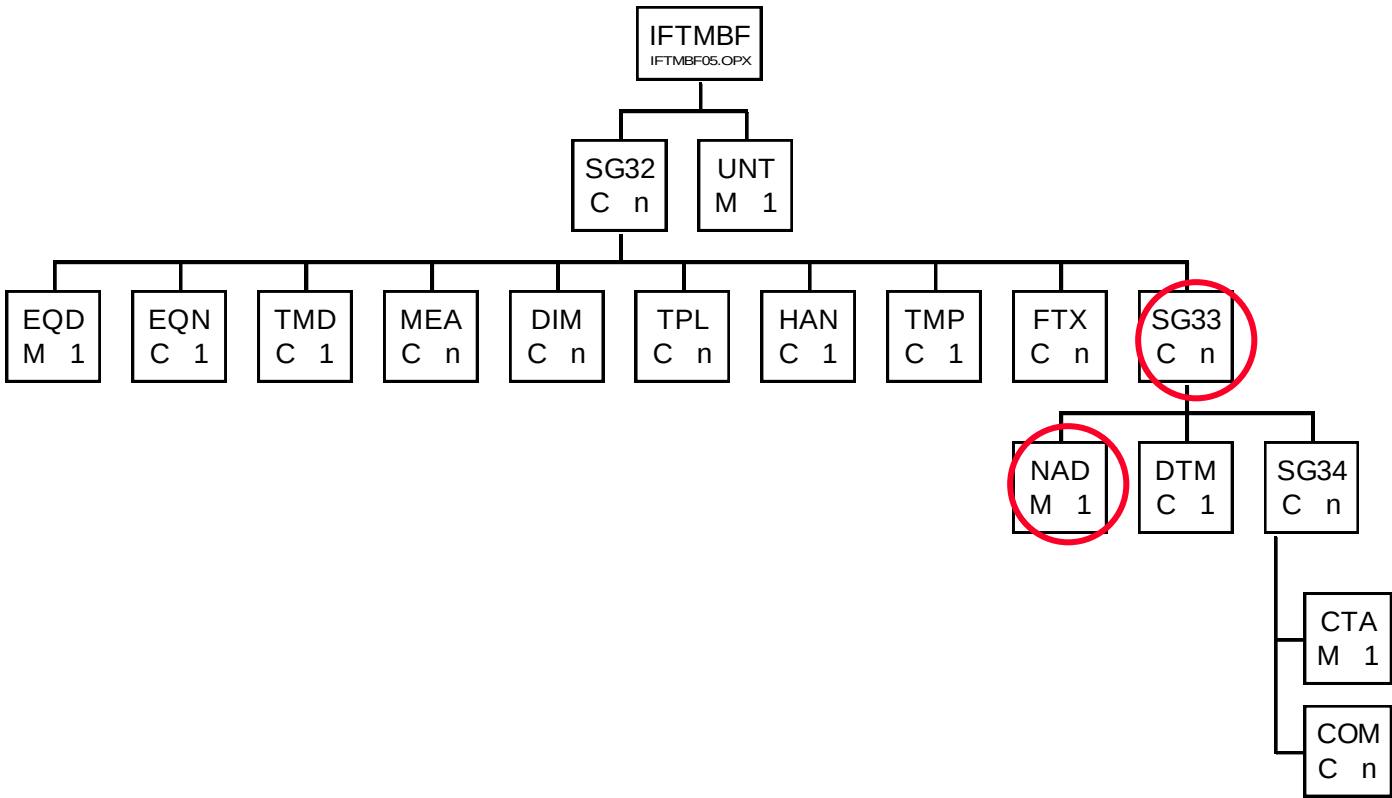
EQD

EQD

UNT

How must the subset be changed, if

- 1. dangerous goods are transported, which may be contained in different containers ?
- 2. complete containers have different consignees ?
- 3. the goods inside the containers have different consignees ?
- 4. some goods shall be loaded into the containers at different locations ?



UNH
BGM
NAD
NAD
NAD
GID
SGP
GID
SGP
EQD
NAD
EQD
NAD
UNT

How must the subset be changed, if

1.

dangerous goods are transported, which may be contained in different containers ?
2.

complete containers have different consignees ?
3.

the goods inside the containers have different consignees ?
4.

some goods shall be loaded into the containers at different locations ?

UNH

BGM

LOC

LOC

NAD

NAD

NAD

GID

LOC

SGP

GID

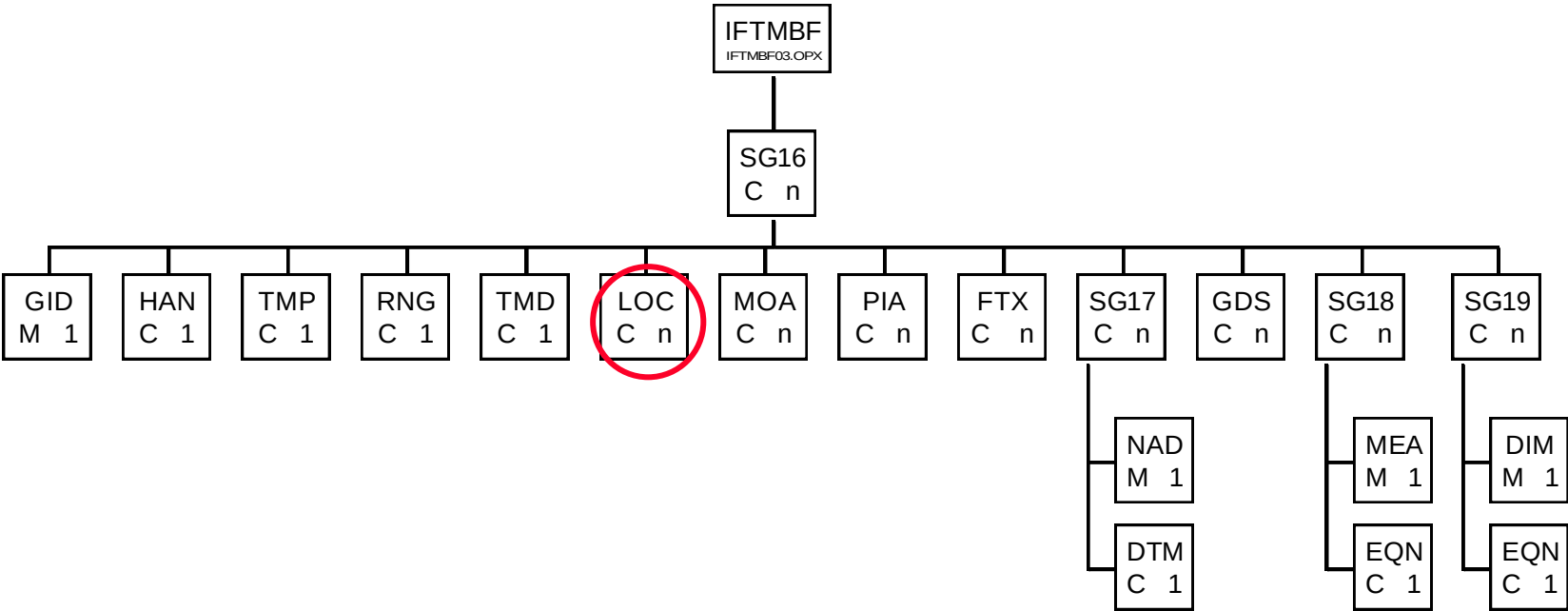
LOC

SGP

EQD

EQD

UNT



How must the subset be changed, if

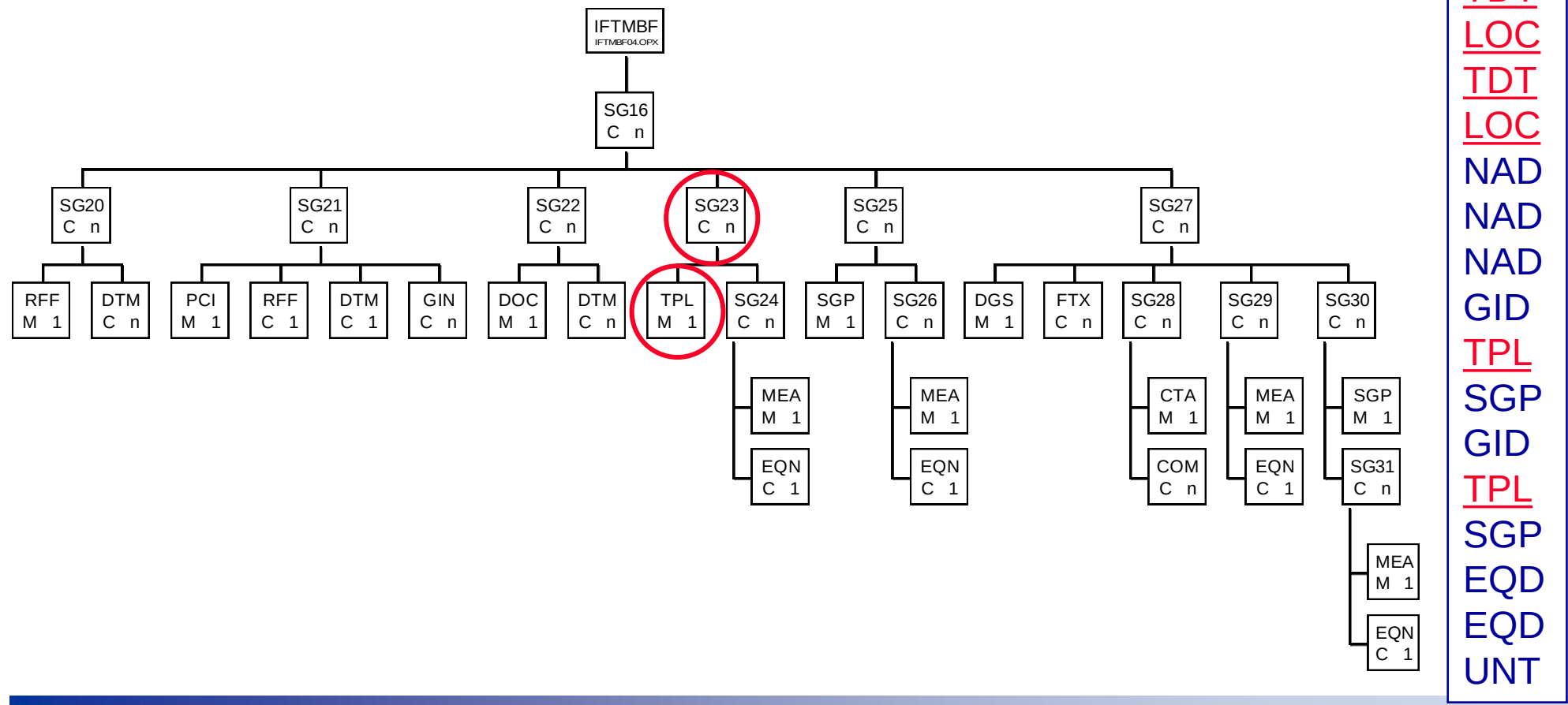
1.

dangerous goods are transported, which may be contained in different containers ?
2.

complete containers have different consignees ?
3.

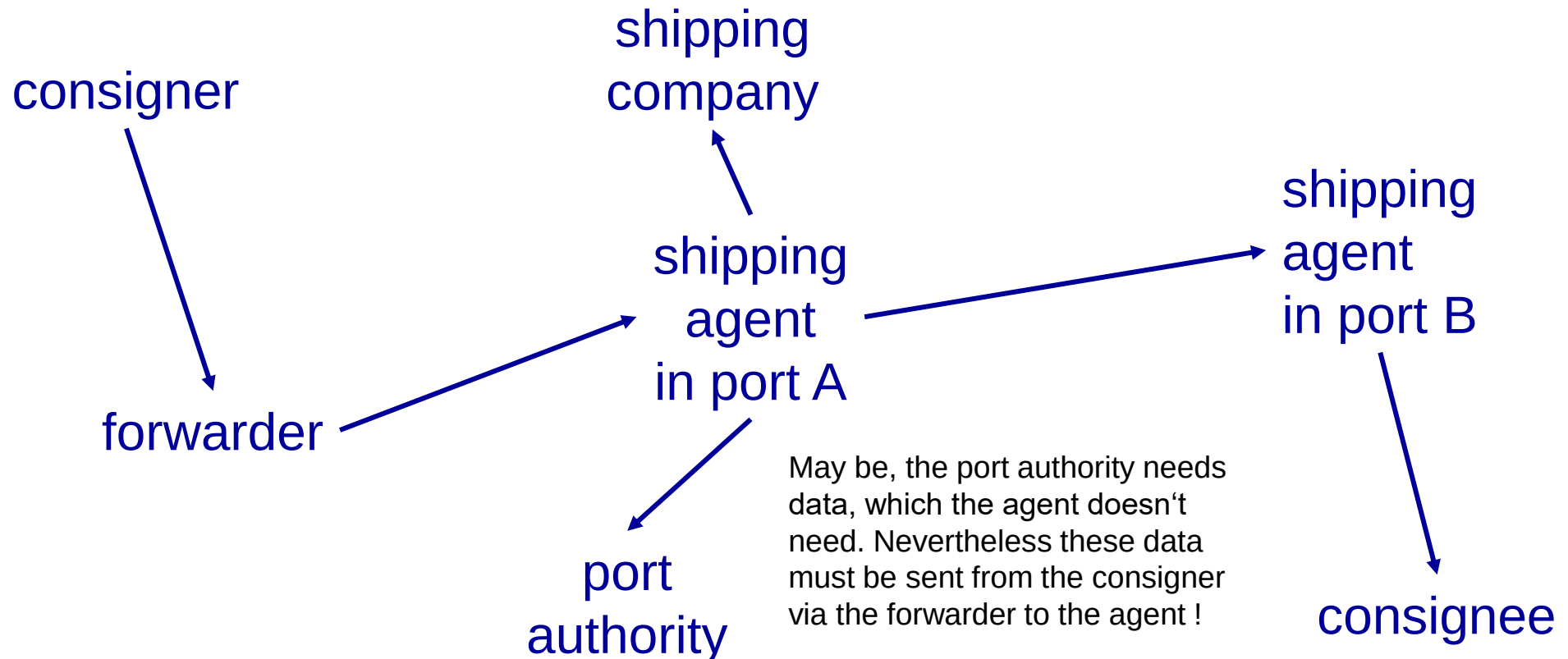
the goods inside the containers have different consignees ?
4.

some goods shall be loaded into the containers at different locations ?



EDIFACT subsets – solution

- The structure of a subset reflects the business processes !
- That means: Other companies -> other processes -> other subsets !
- In a logistic chain: Ask ALL parties, when developing subsets !!



How can the following instruction be sent with an IFTMIN ?

Booksellers

To		Booksellers	
Fast Shipping Corp.		Queens street 5	
Sherlock Holmes street 123		113344 London	
112233 London		Tel. (0999) 123-456	
		Fax (0999) 123-457	
		Email info@booksellers.co.uk	
		WWW www.booksellers.co.uk	

order nr.	information from:	direct call:
154/2003	Ms. Watson	(0999) 123-459

London, 2003-11-13

Ladies and Gentlemen !

Referencing to your offer nr. 21785A/2003 from 2003-10-26 we instruct you to transport the following books from London to Delhi

source: Booksellers.doc

nr.	name	amount	weight
1	„Harry Potter“ vol.1	2000	1.000 kg
2	„Harry Potter“ vol.2	2000	1.000 kg
3	„Harry Potter“ vol.3	3000	1.700 kg
4	„Harry Potter“ vol.4	3000	1.800 kg
5	„Harry Potter“ vol.5	8000	5.000 kg
total weight			10.500 kg

to be delivered at:

Himalaya street 44
665777 Delhi

Our branch in Delhi is open from Monday to Friday between 10 a.m. and 3 p.m. Please contact Mr. Singh (tel. 05545/1239876) there before delivering the books.

With best regards

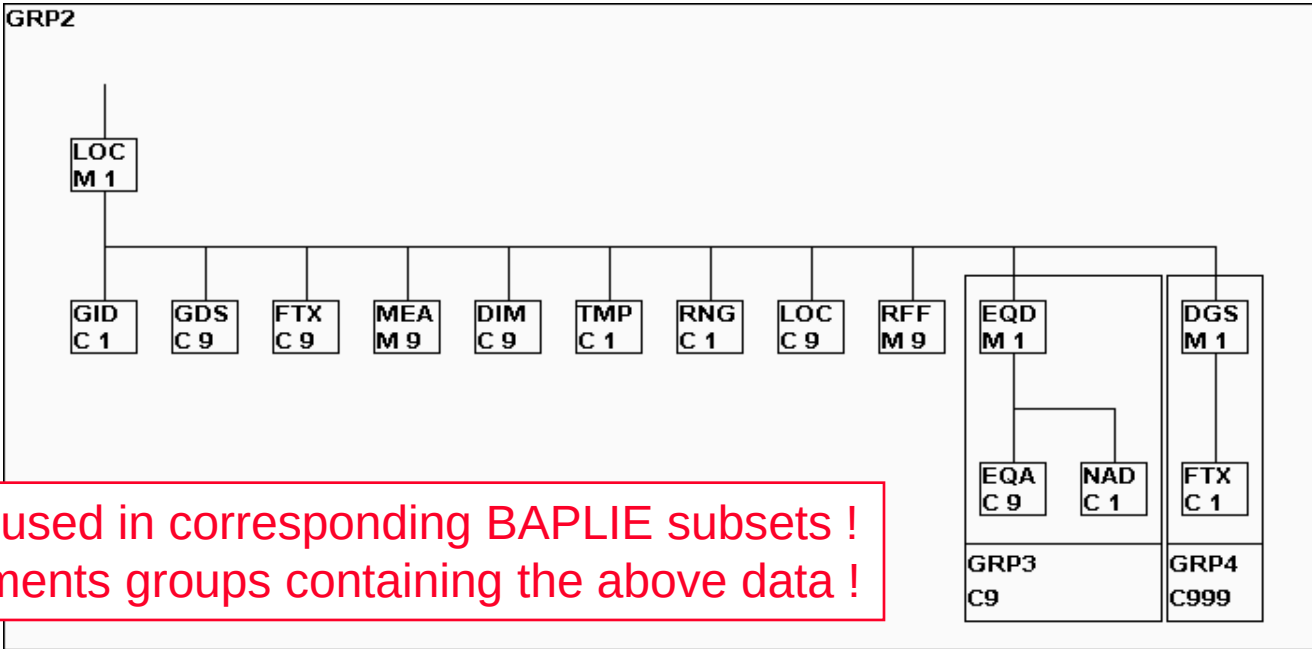
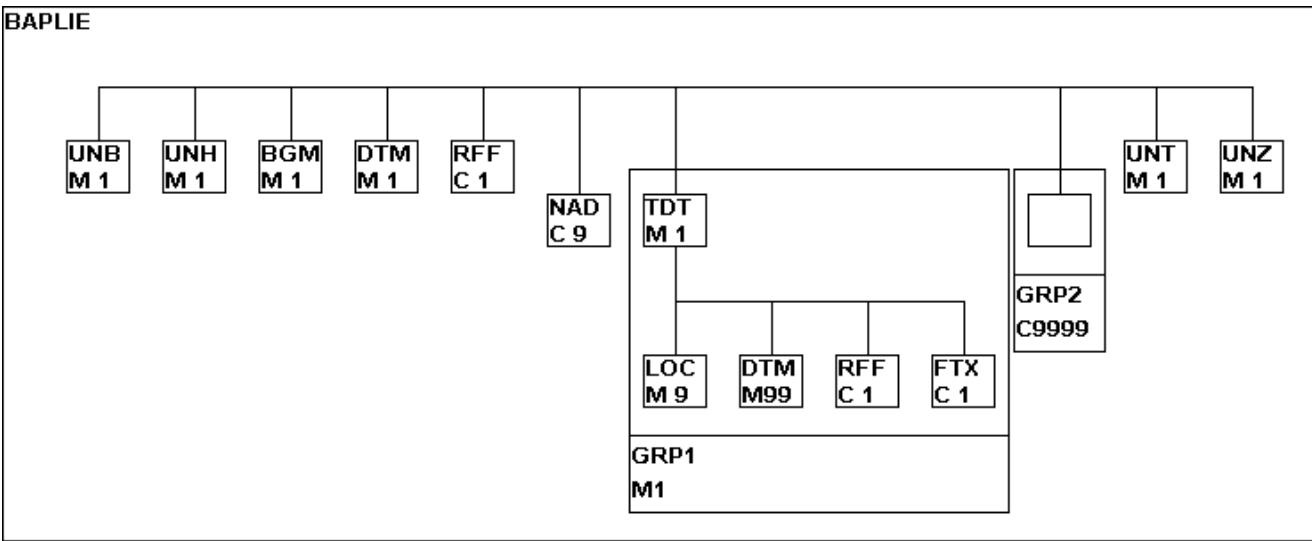
M. Smith

Bank account: Cashbank London, account nr. 111222333

(1) Breakbulk piece without any equipment. 1 piece of machinery 32500 kg, 890x250x320cm, from Hamburg to Singapore occupying bay 12 rows 00,02,04 tier 06.

(2) Two Breakbulk pieces without any equipment. Both of them sharing the same slots. 1 piece of machinery 32500 kg, 890x250x320cm, from Hamburg to Singapore occupying bay 12 rows 00,02,04 tier 06. 1 piece of machinery 25000 kg, 550x250x108, from Hamburg to Hongkong occupying bay 12 rows 00,02 tier 06.

(3) One Breakbulk piece with equipment. 1 piece of machinery 32500 kg, 890x250x320cm, from Hamburg to Singapore occupying bay 12 rows 00,02,04 tier 06. Loaded on 3 flats number ECTU4235876, ECTU4246733 and ECTU4248891 Tareweight of flats is 4250 kg each. The flats are loaded in Hamburg. One flat will be discharged in Singapore. The other two flats will be discharged in Tokyo.



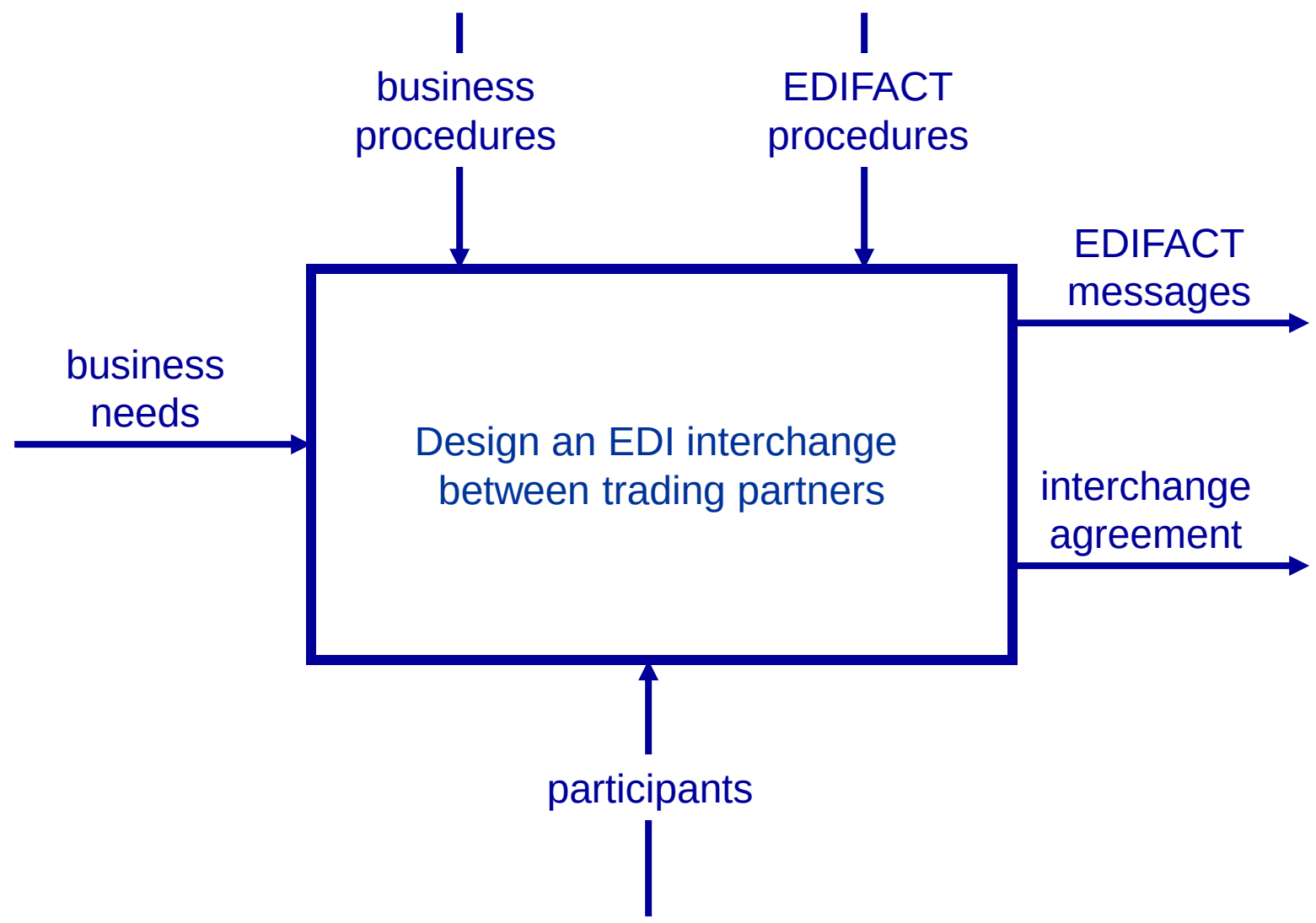
- (a) Mark the segments to be used in corresponding BAPLIE subsets !
- (b) Write down the LOC segments groups containing the above data !

see Baplie30.doc of SMDG (p. 49ff) !

1. Example
2. Who „makes“ EDIFACT ?
3. Other standards
4. The ISO standard 9735
5. Message structure (ISO 9735-2)
6. The UN documents
7. Subsets
8. The implementation guide

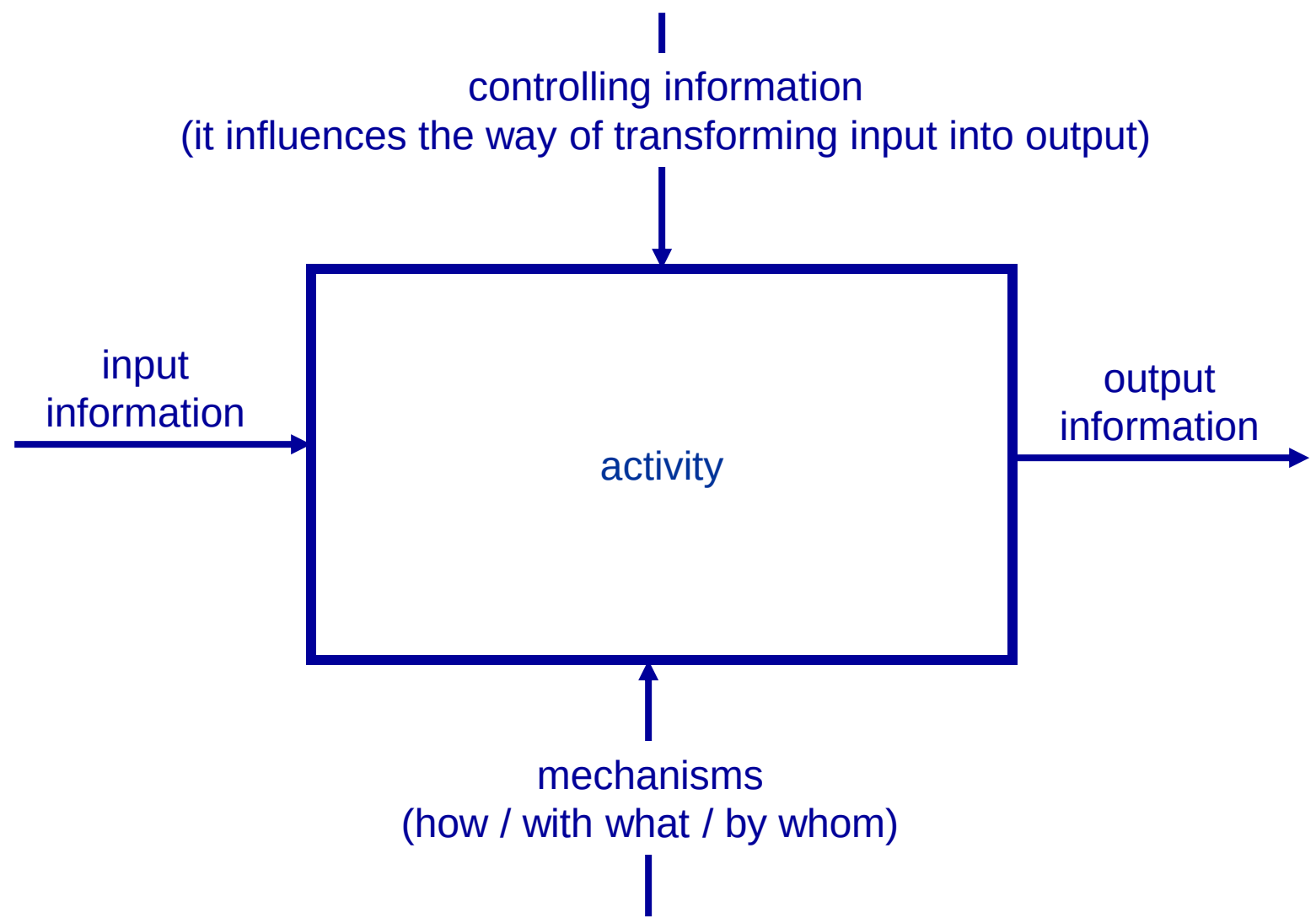
see also chapters 3.3 „User Manual“ and 3.4 „Check List for the Interchange Agreement“ in D4231_D.TXT of D97A.ZIP !
(-> EDIFACT.DOC !)





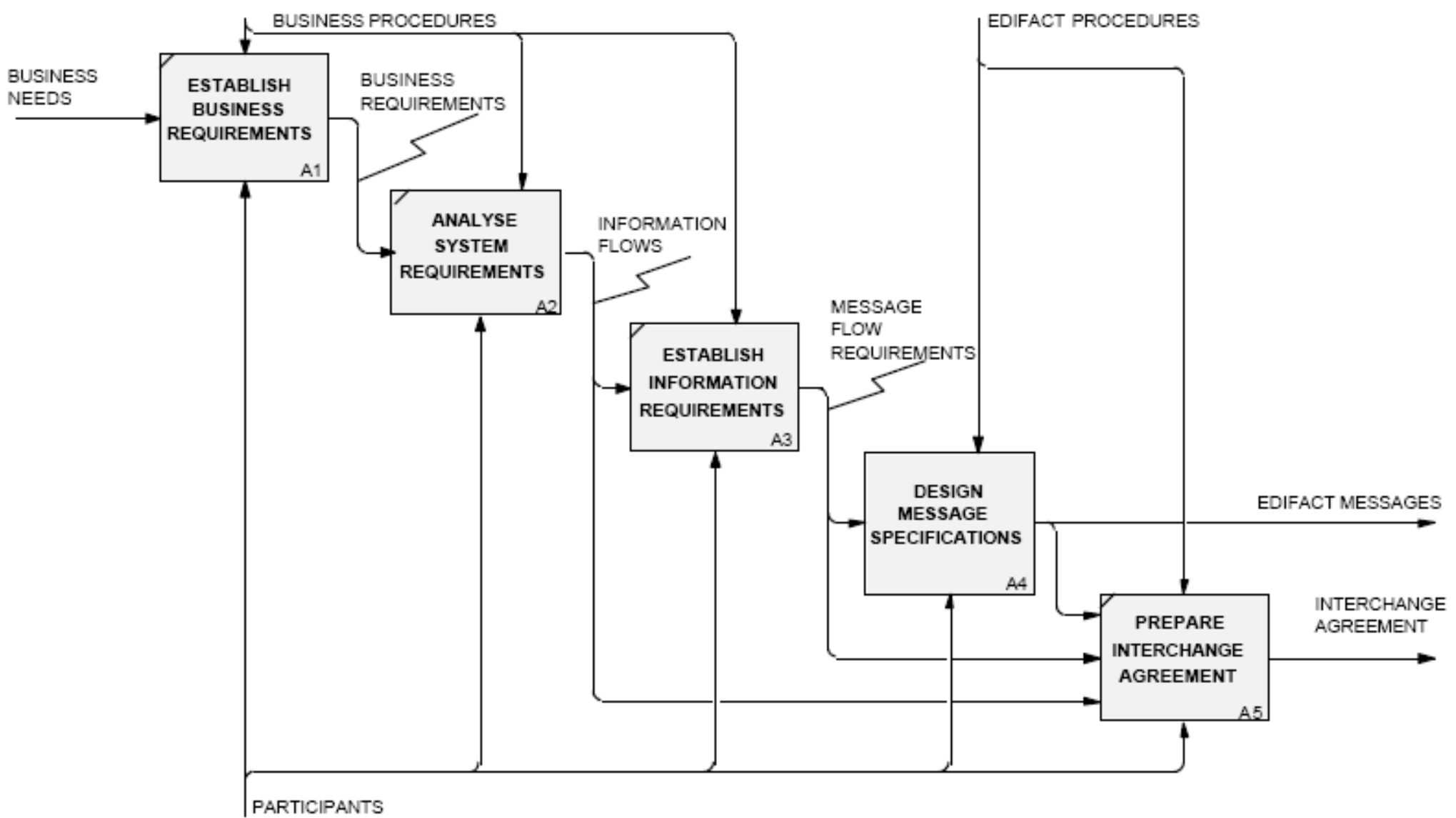
source: D00A -> Part4 -> D422.pdf

Design an EDI interchange between trading partners (level 1)



source: D00A -> Part4 -> D422.pdf

Info: SADT („Structures Analysis and Design Technique“)



source: D00A -> Part4 -> D422.pdf

Design an EDI interchange between trading partners (level 2)

„The need to design UN/EDIFACT messages arises when parties identify that their **business requirements** are based on information flows that need to be exchanged electronically.

The analysis and identification of the core business needs serves as the basic input to the design activity.

Company, legal and/or business procedures provide additional input to the design process. The UN/EDIFACT procedures ensure that the requisite standards are available, and they support in a standardised manner a wide range of business applications.

Once it has been decided to conduct a business process by an electronic means, the requirements of the individual business functions can be established. This will likely entail generating a model of the key aspects of the business environment under study.

Following agreement on the overall requirements by all the parties involved, the specific **system requirements** can be defined. These system requirements will specify all the information flows which will pass among the various parties and the functions which they are designed to carry out.

In the business scenario that is being defined, all of the information flows, both in a manual and a electronic form, would be described. All the business constraints between these flows would also be identified. This includes identifying each event which triggers a given information flow.“

source: D00A -> Part4 -> D422.pdf

„Once the system requirements have been specified, each of the information flows are examined, in order to establish their adequacy for transmission by electronic means. For those information flows selected as candidates for an electronic means of transfer, these are analysed in detail to determine the precise **data requirements of the particular information flows**.

The data requirements for each electronic information flow can be structured into an identified and named set of entities, each of which describe a specific subject through their respective attributes. It is from these entity definitions and/or data models that an initial **message specification** is developed. See also document TRADE/WP.4/GE.1 R.1212 (Draft Business and Information Modelling Framework for UN/EDIFACT).

The current UN/EDIFACT Message Directory should be examined in order to determine whether an existing message corresponds to the required business function.

If an existing message(s) fulfils the function, the message specification is compared to that contained in the UN/EDIFACT Message Directory. Data Maintenance Requests for any additional requirements not covered by the existing message would then be raised and submitted in accordance with the UN/EDIFACT procedures.

If no existing UN/EDIFACT message is found suitable, a Data Maintenance Request for a new message would be prepared and submitted through the UN/EDIFACT process.

When the individual messages have been identified, formal **interchange agreements** are normally prepared between the parties who wish to participate in the electronic exchange.“

source: D00A -> Part4 -> D422.pdf

The Implementation Guide (or „User Manual“) should contain at least:

- the EDIFACT directory it is based on
- its version number
- scope of the message
- graphical representation of the whole UNSM with the used segments are marked
- all the segments of the UNSM with the used segments are marked
- the composite data elements and stand-alone data elements of the used segments - where for the used ones it is represented for which kind of information they are used (especially user defined codes)
- sample segments and messages
- contact information concerning the document maintenance

Segment:	TDT Details of Transport		
Position:	0060 (Trigger Segment)		
Group:	Segment Group 1 (Details of Transport)	Mandatory	1
Level:	1		
Usage:	Mandatory		
Max Use:	1		
Purpose:	A segment identifying the voyage of the vessel relevant to the message (main transport).		
Comments:			
Notes:	<i>Sample segment :</i> TDT+20+W594+1+8+MAE:172:20:MAERSK++6212771:146:11:SL PRIAM:US		

„usage indicators“

Data Element Summary						
	Data Element	Component Element	Name	Attributes		
M	8051		TRANSPORT STAGE CODE QUALIFIER	M	1	an..3
			20 Main-carriage transport			
D	8028		MEANS OF TRANSPORT JOURNEY IDENTIFIER	C	1	an..17
			Vessel operator's voyage number			
			Either this element or the Group 2 RFF must be used to specify a voyage number.			
R	C220		MODE OF TRANSPORT	C	1	
R		8067	Transport mode name code	C		an..3
			I Maritime transport (ocean)			
X		8066	Transport mode name	C		an..17

source: COARRI_JNPT_D95B_34.doc ; see also the SMDG implementation guides !

Segment Group 5: CTA-COM

A group of segments giving contact details of the specific person or department within the party identified in the NAD segment.

CTA, Contact information

A segment to identify a person or department, and their function, to whom communications should be directed.

contact person at the agency

CTA CONTACT INFORMATION

Function: To identify a person or a department to whom communication should be directed.

3139 CONTACT FUNCTION, CODED C an..3

*** OC = Order Contact

C056 DEPARTMENT OR EMPLOYEE DETAILS C

3413 Department or employee identification C an..17

3412 Department or employee C an..35

*** name of the contact person

COM, Communication contact

source: Spedition-Schneller-IGlang.doc

1. analyse your business processes and decide about the usage of certain message types
2. download the original UN documents („message directory“) from www.unedifact.org
3. select the ASCII file with the message description from edmd.zip and store it with your text processing software (for example MS-Word) = „Implementation Guide“
4. mark the segments, which you intend to use (in the text as well in the graphical representation)
5. select the segment descriptions from edsd.zip and copy them into the implementation guide
6. write down, which data elements of the used segments shall contain which information

1. Analysieren Sie Ihre Geschäftsprozesse und entscheiden Sie sich für einen bestimmten EDIFACT-Nachrichtentyp.
2. Benutzen Sie als Grundlage für den Nachrichtenentwurf die derzeit existierende Papierform. Markieren Sie dazu auf dem Papier jede einzelne Information, die mittels EDIFACT übermittelt werden soll.
3. Markieren Sie in der Strukturbeschreibung des ausgewählten EDIFACT-Nachrichtentyps die zu verwendenden Segmente.
4. Benutzen Sie die Segmentbeschreibungen und das Implementation-Guide-Formular, um detailliert festzulegen, welche Informationen mit welchen Datenelementen übermittelt werden sollen.
5. Erfragen Sie beim Dozenten die jeweils erforderlichen Codes.

0040 COM, Communication contact
A segment to identify a communication number of a person or department to whom communication should be directed.

0050 DTM, Date/time/period
A segment to indicate a date and time applying to the whole message, e.g., date and time of document issue.

***** message date**

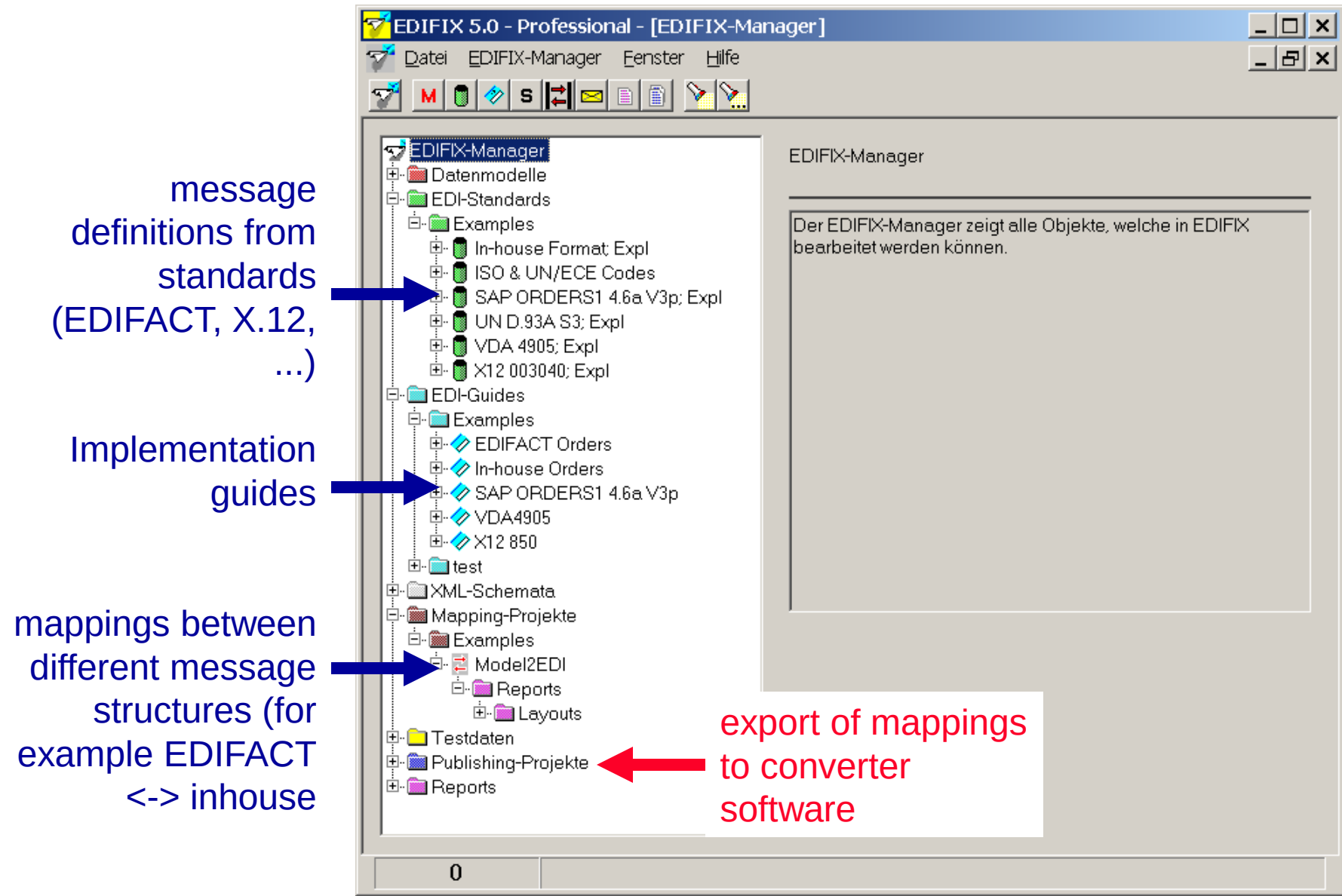
0060 TSR, Transport service requirements
A segment to identify the contract, conditions of carriage, services, and priority requirements for the transport.

Tip: Mark it with a frame (to find it with your eyes) and with three stars (to find it with the text processing software) !

0050 DTM, Date/time/period
A segment to indicate a date and time applying to the whole message, e.g., date and time of document issue.

Function: message date

010	C507	DATE/TIME/PERIOD	M	1
	2005	Date or time or period function code qualifier	M	an..3
***		137 Document/message date/time		
	2380	Date or time or period text	C	an..35
***		date and time		
	2379	Date or time or period format code	C	an..3
***		2 DDMMYY		
		3 MMDDYY		



www.gefeg.com

Implementation Guide: Software EDIFIX

message definitions from standards (EDIFACT, X.12, ...)

Implementation guides

mappings between different message structures (for example EDIFACT <-> inhouse)

EDIFIX 5.0 - Professional - [Nachrichtentyp ORDERS - UN D.93A S3; Expl]						
Datei Bearbeiten Ansicht Verwendung Reports Standard Fenster Hilfe						
MT MT Se Se CD CD DE CL CL ORDERS						
	Äkz	Bez	S	W	E	Name
010		UNH	M	1	0	Message header
020		BGM	M	1	0	Beginning of message
030		DTM	M	35	1	Date/time/period
110		SG2	C	20	1	NAD-LOC-FII-SG3-SG4-SG5
120		NAD	M	1	1	Name and address
140		FII	C	5	2	Financial institution information
150		SG3	C	10	2	RFF-DTM
160		RFF	M	1	2	Reference
210		SG5	C	5	2	CTA-COM
220		CTA	M	1	2	Contact information
230		COM	C	5	3	Communication contact
280		SG7	C	5	1	CUX-PCD-DTM
290		CUX	M	1	1	Currencies
930		SG25	C	1000	1	LIN-PIA-IMD-MEA-QTY-PCD-ALI-DTM-MOA-GIN-GIR
940		LIN	M	1	1	Line item

Segment(-gruppe)

Nachrichtentyp

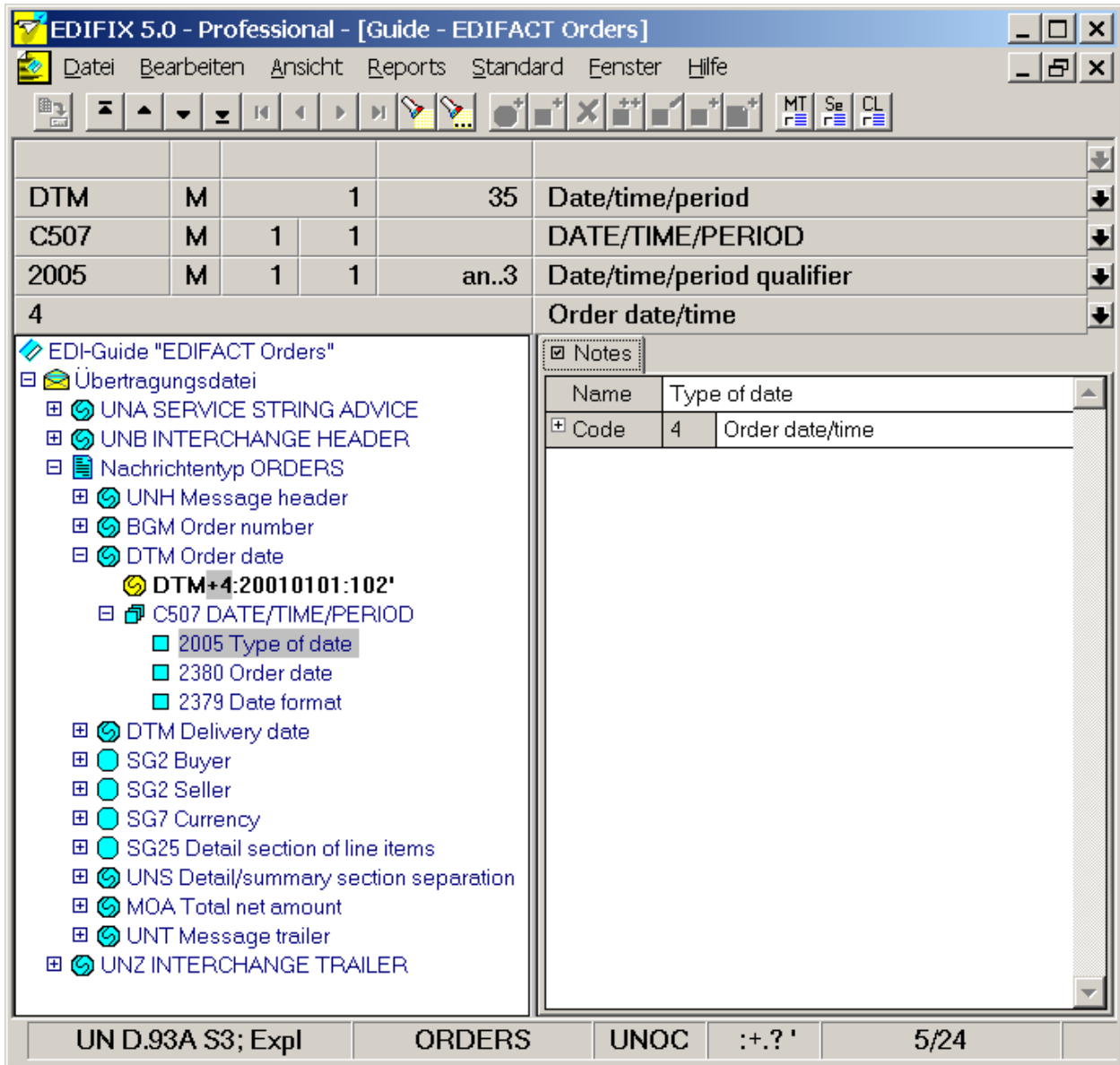
A service segment starting and uniquely identifying a message. The message type code for the UN Order Message is 'ORDERS'. Note: Order messages conforming to this document must contain the following data in UNH, composite S009: Data element 0065 ORDERS 0052 D 0054 93A 0051 UN

EnglischF

message definitions from standards (EDIFACT, X.12, ...)

Implementation guides

mappings between different message structures (for example EDIFACT <-> inhouse)



message
definitions from
standards
(EDIFACT, X.12,
...)

Implementation
guides

mappings between
different message
structures (for
example EDIFACT
<-> inhouse)

EDIFIX 5.0 - Professional - [Mapping-Projekt - Model2EDI]

File Bearbeiten Fenster Hilfe

Message Name Coded (M - string) [2]

Message Number (M - an..10) [3]

Message Date (M - date) [4]

Delivery Date Requested (M - date) [5]

Order Currency (M - string) [6]

Total Order Amount (M - string) [7]

Buyer (M) [8]

Seller (M) [25]

Order Item Details (M) [31]

S010 STATUS OF THE TRANSFER

0070 Sequence message transfer n

0073 First/last sequence message t

BGM Order number (M) [36]

DTM Order date (M) [40]

DTM Delivery date (R) [45]

DTM+2:20010201:102'

C507 DATE/TIME/PERIOD (M) [46]

2005 Type of date (M - an..3) [47]

2380 Delivery date, requested (R - i

Attribut Notes Codes Unterelemente

Concept RequestedDeliveryDate

EDIFACT Orders

%Id 48

%Direction Bidirectional

Notes

ErrorMsgDE E008 Das Lieferdatum darf nicht vor dem Bestelldatum liegen.

ErrorMsgEN E008 Delivery date must not be earlier than the order date.

OrderSweet 5 Bidirectional

L... Quelle Ziel

1 ✓ Message Name Coded (M - string) [2] 0065 Message type identifier (M - an..6) [32]

2 ✓ Message Number (M - an..10) [3] 1004 Order number (R - an..8) [39]

3 ✓ Message Date (M - date) [4] 2380 Order date (R - n8) [43]

4 ✓ Delivery Date Requested (M - date) [5] 2380 Delivery date, requested (R - n8) [48]

5 ✓ Order Currency (M - string) [6] 6245 Currency (R - an..3) [114]

Order Sweet Standard

www.gefeg.com

Summary

- EDIFACT = standard for ASCII files (flat files)
- national and internat. organisations (UN, DIN, SMDG, AFACT, ...)
- ISO standard 9735 describes general message structure (inclusion / exclusion, mandatory / conditional, repetition)
- new in ISO 9735: security and associated data
- more than 200 message types (for example IFTMBF)
- UN documents: message directory, segment directory, codes, ...
- internal pointers TPL and SGP
- subsets are defined by companies and organisations (-> SMDG !)
- documentation („implementation guide“) is very important (-> the version problem !)

The end

The end