



COMMITTEE DRAFT ISO/CD 9897-6	
Date	Reference number
2007-02-12	<b>ISO/TC 104 / SC 4 N 211</b>
Supersedes document	

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<p><b>ISO/TC 104 / SC 4</b></p> <p>Title</p> <p><b>Freight containers - Identification and communication</b></p> <p>Secretariat <b>DIN/FAKRA</b></p>	<p>Circulated to P- and O-members, and to technical committees and organizations in liaison for:</p> <p><input type="checkbox"/> discussion at _____ on _____ [venue/date of meeting]</p> <p><input checked="" type="checkbox"/> comments by <b>2007-04-30</b> [date]</p> <p><input checked="" type="checkbox"/> approval for registration as a DIS in accordance with 2.5.6 of part 1 of the ISO/IEC Directives, by <b>2007-04-30</b> [date]</p> <p>(P-members vote only: ballot form attached)</p> <p><b>P-members of the technical committee or subcommittee concerned have an obligation to vote.</b></p>
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*English title*

**Freight containers – Container equipment data exchange (CEDEX) – Part 6 – Message sets for data transfer between trading partners and systems**

*French title*

Reference language version:  English  French  Russian

Introductory note

ISO/CD 9897-6

ISO/TC 104

Date: 2007-02-15

ISO/CD 9897-6

ISO/TC 104/SC 4

TC104 Secretariat: ANSI

TC 104/SC 4 Secretariat: DIN

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## Freight containers — Container equipment data exchange (CEDEX) – Part 6 — Message sets for data transfer between local computer and host computer

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Document type: International standard  
 Document subtype:  
 Document stage: (30) Committee  
 Document language: E

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, government and non-governmental in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electro-technical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

International Standard ISO 9897, Part 6 was prepared by Technical Committee 104, Freight Containers, Subcommittee SC 4, Identification and communication, Working Group WG3, codes and communications.

This edition of ISO 9897 cancels and replaces the editions of ISO 9897-1:1990, ISO 9897-3:1990 and ISO 9897:1997, which have technically been revised. It consists of the following parts, under the general title *Freight containers - Freight containers — Container equipment data exchange (CEDEX)*:

- *Part 1 General purpose containers*
- *Part 2: Thermal containers*
- *Part 3: Tank containers*
- *Part 4: Special purpose containers*
- *Part 5: Chassis*

## Introduction

This International Standard was prepared by ISO Technical Committee 104/Subcommittee 4/Working Group 3, using the drafting conventions of ISO/IEC Directives, Part 2.

This standard provides a system for the identification and presentation of information about freight container communication codes and message sets. The standard provides an unambiguous unique identification of the container equipment data exchange elements.



# Freight containers — Container equipment data exchange (CEDEX) – Part 6 — Message sets for data transfer between local computer and host computer

## 1 Scope

This part of the ISO 9897 establishes a standard message guideline for data transmission between container terminal or container depot computer system and host computer systems. The purpose is to provide transmission of accurate and complete container maintenance and repair data to ensure efficiency and accountability (audit trail) related to such activities. This standard message sets are also to provide for seamless integration with any other standard data format for transmission to single or multiple remote host(s) as well as simple ex-/import processes within a system and/or between systems.

It consists of,

- Data element directory for the development of messages;
- Message structure guideline for data transmission

This International Standard applies to all freight containers covered by International Standards ISO 668, parts 1 to 5 of ISO 1496, and ISO 8323 and should, wherever appropriate and practicable, also be applied to freight containers other than those covered by these International Standards as well as other types of container related equipment, such as chassis, etc.

This International Standard is to be used in conjunction with the following standards:

ISO 9897-1, Freight containers — Container equipment data exchange (CEDEX) – Part 1: General purpose containers

ISO 9897-2, Freight containers — Container equipment data exchange (CEDEX) — Part 2: Refrigerated containers

ISO 9897-3, Freight containers — Container equipment data exchange (CEDEX) — Part 3: Tank containers

ISO 9897-4, Freight containers — Container equipment data exchange (CEDEX) — Part 4: Special purpose containers

ISO 9897-5, Freight containers — Container equipment data exchange (CEDEX) — Part 5: Chassis

It is intended for business entities for use in communications relating to freight container transactions.

The content of the message sets in this standard are designed to provide simple interface with the UN/CEFACT messages published as the United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT message sets), Joint Transport Group (JM4). The relevant Directory is DESTIM.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3166:1993, *Codes for the representation of names of countries*.

ISO 6346:1995, *Freight containers — Coding, identification and marking*.

ISO 9735, *Electronic data interchange for administration, commerce and transport (EDIFACT) – Application level syntax rules*.

United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT message sets), Joint Transport Group (JM4), DESTIM

ISO 98971-5:????, *Freight containers — Container equipment data exchange (CEDEX)*

## 3 Principle

This part of ISO 9897 is intended to provide guidance for those parties intending introduce or enhance current data interchange in their commercial transactions related to container maintenance and repair including spare part management as well as container repair depot/terminal gate transactions.

For the purposes of this document, the terms and definitions given in ISO 9897 parts 1 to 5 - Container Equipment Data Exchange (CEDEX), ISO 6346 - Coding, identification and marking and ISO 9735, Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT) – Application level syntax rules apply.

The below message sets are part of a total set of container industry related messages. These messages serve to facilitate the overall data exchange related to container equipment.

The message sets included in this standard are:

WESTIM – container repair estimate header details

WESTIMDT – container repair estimate cost item details

## 4 Data elements and codes

### 4.1 Data elements

Data elements and corresponding code sets required to describe equipment components, their condition, repair methods, etc., are included in the appropriate parts of ISO 9897 as listed under scope, section 1.

### 4.2 Code assignments

#### 4.2.1 CEDEX codes

All codes assignments of CEDEX shall be taken as obligatory. That is, an operator shall not pick and choose alternative codes unilaterally, nor depart from the established protocol, nor introduce new codes without having registered the codes in accordance with 4.3.

However, two trading partners may agree mutually to use alternative codes if necessary code are not included in this standard. It is strongly recommended that such code be registered in accordance with 4.3 as soon as possible after introduction.

## 4.2.2 Message sets

Message sets as per this part of the ISO 9897 are messages used for electronic data interchange.

**Important!** The message sets in this standard includes the data elements for the transmission of specific information related to refrigerated containers, tank containers, chassis, etc. These data elements can be: equipment manufacturer, model designation, serial number, spare part number, etc. This will allow the user to designate same component codes for different manufacturer's equipment and to co-relate with each manufacturer's specific spare part numbers, as an example.

Note - Annex A of this part of ISO 9897 is normative; it describes the manner in which a directory of users is developed. The directory is issued by BIC – Bureau International des Containers.

## 5 Message structure and description

The messages sets provide a record structure based on a simple position oriented flat file.

### 5.1 Message structure description

#### 5.1.1 POSITION column:

Represents the first position of the data element in the flat file

#### 5.1.1 WIDTH column:

Represent the size of the data element in the Flat file. If the data element has no value it will be represented in the flat file by blanks.

#### 5.1.3 TYPE column:

CHARACTER	(C)	alpha/numeric text
NUMERIC	(N)	numeric field
LOGICAL	(L)	True or False (to support software validation flags)
DATE/TIME	(D)	CCYYMMDDHHMM

#### 5.1.4 Value column:

The value indicators, M and F, in the table represent the minimum requirements to fulfill the needs of the message structure. They may not be sufficient for all implementations. The value indicator O represent the optional data elements for messaging control and accountability purposes.

Value indicators description:

Value    Description

M    Mandatory data element.

F    Functional data element depending on a condition as defined in 18185-2

O    Optional data element indicates that this item is to be used at the discretion of the supporting systems.

#### 5.1.5 Party addresses:

Addresses in accordance with ISO 9897 Annex J as published by Bureau International des Containers (BIC)

## 5.1.6 Disallowed Characters:

The + : ' and ? characters are not allowed in any data elements, as they are reserved UN/EDIFACT characters and can cause the message failure when mapped to such message types.

## 5.2. Message file structure:

## 5.2.1 WESTIM

#	NAME	POSITION	WIDTH	TYPE	DESCRIPTION
1	COMPLETE	1	1	L	Confirms document completed
2	SENT_EIR	2	1	L	Flags F/T before/after send session
3	SENT_DATE	3	8	D	Date message sent
4	REC_EIR	11	1	L	Flags F/T before/after send session
5	REC_DATE	12	8	D	Date received
6	REC_ADDR	20	9	C	9 digit code of receiving party
7	REC_TYPE	29	1	C	1 digit type code of receiving party
8	EXPORTED	30	1	L	Default F, flags T after export
9	EXPOR_DATE	31	8	D	Date of Export
10	IMPORTED	39	1	L	Default F, flags T after import
11	IMPOR_DATE	40	8	D	Date of Import
12	TRNSXN	48	14	C	Estimate Number
13	PTY_RSPONS	62	1	C	to identify party responsible for repair
14	REVISION	63	1	C	Revision number of estimate
15	ESTIM_DATE	64	8	D	Date of estimate
16	UNIT_ID_A	72	4	C	e.g.: CONU – prefix
17	UNIT_ID_N	76	6	C	e.g.: 123456 - unit number
18	UNIT_ID_C	82	1	C	e.g.: 1 - check digit
19	REFERENCE	83	35	C	Customer Reference
20	EQUIP_TYPE	118	3	C	CON, CHZ or GEN
21	EQUIP_CODE	121	4	C	ISO Code
22	EQUIP_DESC	125	30	C	Text description
23	TERM_LOCA	155	9	C	Location of redelivery Party Code
24	TERM_DATE	164	8	D	Date of redelivery
25	TERM_TIME	172	5	C	Time of redelivery
26	LASTOHLOC	177	9	C	Last On Hire Location Party Code
27	LASTOHDAT	186	8	D	Last On Hire Date
28	CONDITION	194	10	C	Condition at time of redelivery
29	MANU_DATE	204	5	C	Date of Manufacture (MM/YY)

30	CSC_REEXAM	209	5	C	ACEP or MM/YY
31	LOAD	214	1	C	1 digit status indicator
32	SENDER	215	15	C	Person sending the message
33	ATTENTION	230	15	C	Person to whom message is sent
34	LSR_OWNER	245	9	C	Owner Party Code
35	SEND_ED1_1	254	1	L	T/F for send
36	SSL_LSE	255	9	C	Lessee Party Code
37	SEND_ED1_2	264	1	L	T/F for send
38	HAULIER	265	9	C	Trucker Party Code
39	SEND_ED1_3	274	1	L	T/F for send
40	DPT_TRM	275	9	C	Depot/Terminal Party Code
41	SEND_ED1_4	284	1	L	T/F for send
42	INSURER	285	9	C	Insurance Company Party Code
43	SURVEYOR	294	9	C	Survey Company Party Code
44	OTHER1	303	9	C	Other Party Code
45	TAX_RATE	312	6,3	N	Tax Rate
46	FILLER	318	3	C	Proprietary Use
47	NOTE1	321	70	C	Free Text
48	NOTE2	391	70	C	Free Text
49	NOTE3	461	70	C	Free Text
50	BAS_CURR	531	3	C	Base currency for estimates
51	LABOR_RATE	534	12,2	N	Labor rate
52	DPP_CURR	546	3	C	Currency for DPP
53	DPP_AMT	549	10	N	Actual DPP coverage amount
54	WEIGHT	559	10	N	e.g.: 24000
55	MEASURE	569	3	C	e.g.: MGW - Maximum Gross Weight
56	UNITS	572	3	C	e.g.: KGM
57	MATERIAL	575	2	C	Material
58	U_LABOR	577	10,2	N	Labor cost for USER/LESSEE
59	U_MATERIAL	587	10,2	N	Material cost for USER/LESSEE
60	U_HANDLING	597	10,2	N	Handling cost for USER/LESSEE
61	U_TAX	607	10,2	N	Tax for USER/LESSEE
62	U_TOTAL	617	10,2	N	Total cost for USER/LESSEE
63	I_LABOR	627	10,2	N	Labor cost for INSURER (DPP)
64	I_MATERIAL	637	10,2	N	Material cost for INSURER (DPP)
65	I_HANDLING	647	10,2	N	Handling cost for INSURER (DPP)
66	I_TAX	657	10,2	N	Tax for INSURER (DPP)

67	I_TOTAL	667	10,2	N	Total cost for INSURER (DPP)
68	O_LABOR	677	10,2	N	Labor cost for OWNER/LESSOR
69	O_MATERIAL	687	10,2	N	Material cost for OWNER/LESSOR
70	O_HANDLING	697	10,2	N	Handling cost for OWNER/LESSOR
71	O_TAX	707	10,2	N	Tax for OWNER/LESSOR
72	O_TOTAL	717	10,2	N	Total cost for OWNER/LESSOR
73	D_LABOR	727	10,2	N	Labor cost for DEPOT
74	D_MATERIAL	737	10,2	N	Material cost for DEPOT
75	D_HANDLING	747	10,2	N	Handling cost for DEPOT
76	D_TAX	757	10,2	N	Tax for DEPOT
77	D_TOTAL	767	10,2	N	Total cost for DEPOT
78	S_LABOR	777	10,2	N	Labor cost for SPECIAL BILLING
79	S_MATERIAL	787	10,2	N	Material cost for SPECIAL BILLING
80	S_HANDLING	797	10,2	N	Handling cost for SPECIAL BILLING
81	S_TAX	807	10,2	N	Tax for SPECIAL BILLING
82	S_TOTAL	817	10,2	N	Total cost for SPECIAL BILLING
83	X_LABOR	827	10,2	N	Labor cost for DELETED ITEMS
84	X_MATERIAL	837	10,2	N	Material cost for DELETED ITEMS
85	X_HANDLING	847	10,2	N	Handling cost for DELETED ITEMS
86	X_TAX	857	10,2	N	Tax for DELETED ITEMS
87	X_TOTAL	867	10,2	N	Total cost for DELETED ITEMS
88	EST_TOTAL	877	10,2	N	Estimate grand total
89	ADVICE	887	14	C	Acceptance Advice Number
90	EIR_NUM	901	14	C	EIR Receipt Number
91	AUTH_NUM	915	14	C	Work Authorization Number
92	AUTH_AMT	929	10,2	N	Work Authorization Amount
93	AUTH_PTY	939	9	C	Authorizing Party Code
94	AUTH_DATE	948	8	D	Approval Date
95	O_ESTIM_DATE	956	8	D	Original Date of Estimate
96	OTHER2	964	9	C	Send FAX to Address
97	SEND_EDI_5	973	1	L	T/F for send
98	SEND_EDI_6	974	1	L	T/F for send
99	SEND_EDI_7	975	1	L	T/F for send
100	SEND_EDI_8	976	1	L	T/F for send
101	NOTE	977	70	C	Free Text
102	NOTE	1047	70	C	Free Text
103	WEIGHT2	1117	7	N	Weight Number 2

104	MEASURE2	1124	3	C	Measure Number 2
105	INVOICE_TYPE	1127	2	C	P1 = power, T1 = tire, O1 = other
106	ODOMETER_HOURS	1129	6	N	Odometer reading
107	OUTSVC_DATE	1135	8	D	Out of service date
108	RETSVC_DATE	1143	8	D	Return to service date
109	OWN_INSP_DATE	1151	8	D	Owner Inspection Date
110	MECHANIC_NAME	1159	25	C	Mechanics Name
111	BILLEE_CODE	1184	15	C	Code assigned by railroad
112	SUB_REPAIR_TYPE	1199	1	C	Sub repair type code
113	OUT_SVC_TIME	1200	5	N	Time unit went out of service
114	RET_SVC_TIME	1205	5	N	Time unit returned to service
<b>115</b>	<b>EQP_UNIT_MAN</b>	<b>1210</b>	<b>10</b>	<b>C</b>	<b>EQUIPMENT MANUFACTURER</b>
<b>116</b>	<b>EQP_UNIT_TYP</b>	<b>1220</b>	<b>20</b>	<b>C</b>	<b>EQUIPMENT TYPE DESIGNATION</b>
<b>117</b>	<b>EQP_UNIT_SN</b>	<b>1240</b>	<b>30</b>	<b>C</b>	<b>EQUIPMENT SERIAL NO.</b>
**	Total	**	1269		

### 5.2.2 WESTIMDT

#	NAME	POSITION	WIDTH	TYPE	DESCRIPTION
1	EXPORTED	1	1	L	Default F, flags T after export
2	EXPOR_DATE	2	8	D	Date of Export
3	IMPORTED	10	1	L	Default F, flags T after import
4	IMPOR_DATE	11	8	D	Date of Import
5	TRNSXN	19	14	C	ESTIMATE number
6	REVISION	33	1	C	Revision number
7	ESTIM_DATE	34	8	D	Date of document
8	UNIT_ID_A	42	4	C	e.g.: CONU – prefix
9	UNIT_ID_N	46	6	C	e.g.: 123456 - unit number
10	UNIT_ID_C	52	1	C	e.g.: 1 - check digit
11	REFERENCE	53	49	C	Unused
12	LABOR_RATE	102	15,2	N	Labor rate
13	LINE	117	2	C	Line item number
14	REPAIR	119	2	C	Repair code
15	REPEATS	121	3	N	Quantity - number of damages
16	DAMAGE	124	2	C	Damage code
17	COMPONENT	126	3	C	Component code

18	COMP_MATL	129	2	C	Component material
19	LOCATION	131	4	C	Location code
20	LENGTH	135	8,2	N	Length dimension
21	WIDTH	143	8,2	N	Width dimension
22	HEIGHT	151	8,2	N	Height dimension
23	UNITS	159	3	C	Unit of measure
24	HOURS	162	6,2	N	Hours for line item
25	SCALE	168	2	N	Work scale (05,10,15, etc.)
26	MAT_COST	170	15,2	N	Line item material cost
27	PTY_RSPONS	185	1	C	Party responsible for line item
28	TAX_RULE	186	1	C	Repair Taxation Scope
29	AAR_JOB	187	4	C	AAR Job Code (from Component in db)
30	JOBCODE	191	9	C	Tariff Job Code
31	DMGREPDESC	200	60	C	Composite Damage,Repair,Component Desc
32	OFF_TIRE_SIZE	260	10	C	Size of tire removed
33	OFF_BRAND	270	10	C	Brand of tire removed
34	OFF_SERIAL_NUM	280	15	C	Serial number (DOT) of tire removed
35	OFF_LOT_NUM	295	8	C	Lot number of tire removed
36	OFF_TREAD_DEPTH	303	1	N	Tread depth of tire removed
37	ON_TIRE_SIZE	304	10	C	Size of tire put on
38	ON_BRAND	314	10	C	Brand of tire put on
39	ON_SERIAL_NUM	324	15	C	Serial number (DOT) of tire put on
40	ON_LOT_NUM	339	8	C	Lot number of tire put on
41	ON_TREAD_DEPTH	347	1	N	Tread depth of tire put on
42	SUPPLYTIRE	348	1	L	T if Supply Tire used
43	SUPPLYTIREAMT	349	8,2	N	Supply Tire monetary amount
44	ON_RETREAD_SER	357	15	C	Retread Serial number of tire put on
45	OFF_RETREAD_SER	372	15	C	Retread Serial number of tire removed
<b>11</b>	<b>COMP_SPARE_ID</b>	<b>387</b>	<b>49</b>	<b>C</b>	<b>Equipment spare part no.</b>
**	Total	**	435		

## **Annex A** (normative)

### **Codes - Party identification and location**

(see 4.1 and 4.2)

In addition to this part of ISO 9897 a directory of names and addresses of companies participating in standardized communication rules for commercial transactions related to containers has been developed. Companies participating can register one or more Party identification code(s) depending of the number of locations under each company's management.

The code of business names and addresses consists of a

- 5-alpha code which is the UN-LOCODE for the location nearest the business address, plus a
- 4-alpha code for the identification of the individual company.

The ISO Council has, in accordance with the provisions of the Directives for the technical work of ISO, designated the International Container Bureau as the Registration Authority for the party identification and location codes:

Bureau International des Containers (BIC)  
167, rue de Courcelles  
F-75017 Paris  
France

Telephone: +33-1-47 66 03 90  
Telefax: +33-1-47 66 08 91

The International Container Bureau will publish an updated directory of business names and addresses and codes at least once a year. The codes will also be published on: [www.bic-code.org](http://www.bic-code.org)

## Bibliography

- [1] ISO 9897:1997, Freight containers – Container equipment data exchange
- [2] ISO 9735, Electronic data interchange for administration, commerce and transport (EDIFACT) – Application level syntax rules.
- [3] United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT message sets), Joint Transport Group (JM4), CODECO, COARRI and COPARN, release 06B and onwards (expected 2H/2006)
- [4] ISO 3166:1993, *Codes for the representation of names of countries.*
- [5] ISO 6346:1995, *Freight containers — Coding, identification and marking.*