



The European B2B Forum for the Electronics Industry

EDIFICE Guideline

Shipment Label

Issue 5

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Comparison to previous issue

Changes in Issue 5 of 9 November 2001 compared to Issue 4 of 14 June 2000:
The UN/EDIFACT qualifiers for License Plate made available in the UN/EDIFACT code list D.01A have been added to the table in paragraph 6.2 Relation of shipment data element and EDI segment

VZ = Transport unit identification according to ISO/IEC 15459 - (DI `J`)

WA = Indivisible transport unit according to ISO/IEC 15459 - (DI `1J`)

WB = Divisible transport unit according to ISO/IEC 15459 - (DI `2J`)

The example on page 23 has been updated accordingly.

Changes in Issue 4 of 14 June 2000 compared to Issue 3 of 17 March 1999:

- all `data field` occurrences were replaced with `data element`
- Data element tables 6.2 and 7.2 were adjusted:
 - o Addition of ship to/from location & postal codes
 - o Adjustment of usage of the data identifier for Weight
 - o Addition of Dimensions to the Volume element
- Adjustment of shipment label examples according to changes above

Changes in Issue 3 of 17 March 1999 compared to Issue 2 of 18 November 1998 :
Addition of the use of the DataMatrix 2-D symbology.

Issue 2 of 18 November 1998 is a complete review based on Issue 1 endorsed by EDIFICE on 19 September 1991 and the draft issue 0.4 of 5 May 1995.
The guideline was adapted to the license plate and two-dimensional code developments.

1 Foreword

The purpose of a bar code label is to facilitate the automatic exchange of data among all members within a channel of distribution, e.g. supplier, carrier, purchase and other intermediaries. The amount of data, in linear bar code, two-dimensional symbols and in human readable form, is dependent on the requirements of the trading partners. Where a bar code label is used in conjunction with electronic data bases and/or Electronic Data Interchange (EDI) systems, the amount of data may be significantly reduced and may consist of only one piece of data, the unique identifier for the transport unit.

For the purposes of this guideline a **unit load** is considered to be one or more transport packages or other items held together by means such as pallet, ship sheet, strapping, interlocking, glue, shrink wrap or net wrap, making them suitable for transport, stacking and storage as a unit. For the purposes of this guideline a **transport package** is considered to be a package intended for the transportation and handling of one or more articles, smaller packages, or bulk material. Both unit loads and transport packages are referred to as **transport units** in this document.

2 Purpose

This document provides guidelines for the establishment of the machine readable (e.g. use of bar code and 2-D symbologies) and human readable data content of shipment labels for the electronics industry. The purpose of these labels is to ensure that the shipment containers can be uniquely identified in any commonly used distribution system.

These labels further support trading partner data needs in shipping, transport and receiving processes in the world-wide distribution of components and products.

3 Scope

This document has been created by the EDIFICE Bar code group. Its intent is to serve as a base for company standards within the electronics industry community.

The expression 'COMpANY' is used in this document to represent the name of any company and may be replaced by your own company's name or be used as it is.

This document provides instructions for producing and applying bar codes for world-wide COMpANY product shipments. A brief description of the integration of Electronic Data Interchange (EDI) and bar codes in a distribution environment is included.

The wordings 'linear code' and 'bar code' are used as synonyms throughout this document.

4 Shipment label with License Plate Number

A prerequisite for making use of the advantages of EDI in the COMpANY distribution operation is the ability to link, through the use of computerised applications, the transportation units with their (advance) shipment data and the related shipment EDI data.

For this purpose all handling units must be clearly and uniquely identified with the appropriate bar code label. CEN has developed a 'Multi Industry Labelling Standard' EN 1573 (MITL), it is the base for this guideline and for use within COMpANY. The core of the MITL is the definition of when and how to use a license plate. The structure and the method of how to create a license plate is described in the EN 1572. Information on how to create a license plate is not subject of this guideline and should be obtained from the 'EDIFICE License plate implementation guideline'.

Every function that ships or receives goods via COMpANY distribution must make sure that the label defined in this guideline is applied to each physical handling unit and that the unique license plate number is properly linked to the appropriate customer's order/shipment data.

In addition, the same license plate numbers are used to assign transportation units to a shipment/consignment which is described by the UN/EDIFACT Despatch advice message (DESADV); here the license plate number allows tracking and tracing of transport units on their way through the transportation chain.

To complement the use of bar codes, COMpANY uses the EDIFICE DESADV message and the transportation related IFTxxx messages to receive data via EDI.

4.1 License Plate Number

License plate number is a unique number, regardless of use, specified by the label issuer and applied to a transport unit to provide access to traceability data regardless of content and destination and valid for its lifetime.

4.2 Data Identifiers

COMpANY uses the data identifiers of the ANSI MH10.8.2 Data application identifier standard to identify coded information on the label. Data encoded in 2-D symbols are structured according to the ISO/IEC 15434 syntax rules.

4.3 Use of Data Identifier (ANSI MH10.8.2.) for License Plate Number

- J precedes the unique license plate
- 1J precedes the unique license plate assigned to a transport unit which is the lowest level of packaging, the unbreakable unit
- 2J precedes the unique license plate assigned to a transport unit which contains multiple packages

EDIFICE recommends to use the single 'J' data identifier (ANSI MH10.8.2). However company applications should be enabled to process '1J' and '2J' data identifiers as well. EDIFICE recommends that EDI associated data is sent.

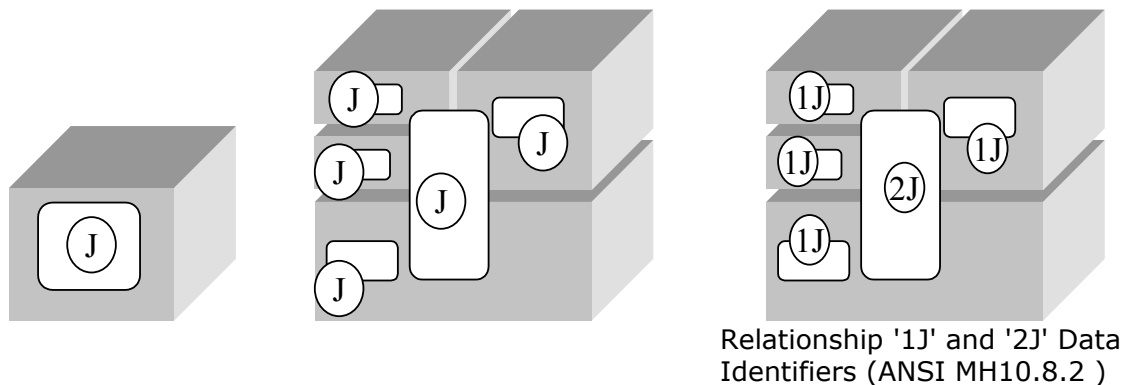


Figure 1

4.4 Other identifiers for transport package / unit load identity.

This guideline recognises the historical use of data identifiers (ANSI MH10.8.2) 'S', '3S', '4S', '5S', '6S', '7S', '9S', '3J' and '4J' within the electronics industry.

It is recommended to migrate from this current practice to the use of unique license plates, as specified in paragraph 5.3 above, within a period of 3 years from the date of issue of this guideline.

5 Data format EDI Shipment Label.

5.1 Introduction

Electronic Data Interchange (EDI) used in conjunction with bar code labelling means the shipper only needs to bar code one data element per handling unit, being the license plate, although optional data elements may be bar coded if required.

Integrating the use of bar codes with EDI sets the stage for significant automation enhancements. Data may be retrieved directly from the EDI order transaction that was sent by the COMpANY location eliminating the need for re-keying. As the items are being loaded on the truck they are scanned; thus updating the supplier's shipping data base and eliminating the need for further re-keying.

The supplier's shipping information is then formatted into a DESADV message, containing all license plate numbers in the shipment and sent to the receiving location. When the shipment arrives at the receiving location, the 'licence plate' bar codes on the incoming units can be captured and used to access the shipment information which was sent electronically.

The label may be used for domestic, inter-company and international shipments.

An illustration of the concept for bar code and EDI in shipment oriented processes is shown in appendix 4.

A sample DESADV message with explanatory notes is found in appendix 3.

5.2 Data elements

Following is the recommended list of data elements for the EDI shipment label. The type of shipment determines which data elements are required on the label.

Blanks shall not be included in the coded data.

Mandatory data elements that can optionally be coded in linear or 2-D code, shall be specified in human readable format on the shipment label.

Data element	Data format (type/length)	Data Identifier (ANSI MH10.8.2)	Data presentation			Description
			Human readable	Linear Code	2-D Code	
License plate	an..35	J, 1J, 2J	M	M	O	Unique transport unit identification assigned by the label issuer. See also chapter 5.1
Despatch advice Number	an..35	2S	O	O	O	Advance Shipment Notification Id. See also chapter 6.4.2
Carrier shipment ref	an..35	3K	O	O	O	Bill of Lading/Waybill/ Shipment Id. Code assigned by Carrier
Ship to	5 X an..35	N/A	M	N/A	N/A	Ship to address for physical delivery
Ship to location code	an..35	2L	O	O	O	Location code defined by an industry standard or mutually defined
Ship to postal code	an..9	52L	O	O	O	Zip/Postal code
Ship from	5 X an..35	N/A	M	N/A	N/A	Ship from address of physical delivery
Ship from location code	an..35	3L	O	O	O	Location code defined by an industry standard or mutually defined
Ship from postal code	an..9	51L	O	O	O	Zip/Postal code
Weight	an..18	7Q	M	O	O	Gross weight of transport unit *)
Volume/Dimensions	an..18	7Q	O	N/A	O	Volume / dimensions of transport unit *)

M = Mandatory O = Optional N/A Not applicable

*) The data identifier '7Q' requires that the quantity is followed by the 2-character ANSI X12.3 data element number 355 Unit of Measurement code.

5.3 Relation of shipment data element and EDI segment

Data element	EDI Qualifier	EDI Segment	EDI Example
License plate	VZ = Transport unit identification (DI 'J') WA = Indivisible transport unit (DI '1J') WB = Divisible transport unit (DI '2J')	SG14 GIN	GIN+VZ+LEXYZ12345678901'
Despatch advice Number	351 = Despatch advice	BGM	BGM+351:K4567898'
Carrier shipment ref	AWB = Air waybill number	SG1 RFF	RFF+AWB:020-12345678'
Ship to	CN = Consignee DP = Delivery party	SG2 NAD	NAD+CN+FCL:::92' NAD+DP+++Fine Computers Limited+521 Megabyte Drive+Graphton++7R3BY1+UK'
Ship from	CZ = Consignor SF = Ship from	SG2 NAD	NAD+CZ+BCL:::91' NAD+SF+++Best Components Ltd+90 Megahertz Lane+Chiptown++SN3 1RJ+UK'
Weight	WT = Weights	SG11 MEA	MEA+WT+G+KGM:17'
Volume	VOL = Volume	SG11 MEA	MEA+VOL+AAW+MTQ:1,5'

5.4 Description of data content

5.4.1. License Plate Number

Refer to chapter 5.1 License Plate Number.

5.4.2. Despatch Advice Number.

In transport related operations, the DESADV (or 'Advanced shipment notification') number is also used to identify a complete shipment.

For a transition period, the despatch advice number, for a shipment, will be bar coded also, even though the shipment data also can be retrieved using any of the license plate numbers on the transport units.

CEN does not require a '2S' identifying number to be unique (like a license plate), business partners therefore should establish bilateral agreements to ensure uniqueness of despatch advice numbers within their environment for at least one year.

The '2S' identifier is used to identify the bar code showing the related despatch advice number.

The despatch advice number may be used during transport (in a controlled supply chain) or by the receiving operation as a data base key to the advance shipment data, which provides the details of the shipment. This reference should be used as the main reference for the shipment by both the shipper and the carrier.

A data sample could be : 2SSEERA987654

6 Data format non-EDI Shipment Label.

6.1 Introduction

The long term aim of the electronics industry, is to promote the use of EDI accompanied by the minimum of bar code labeling. As all companies are not yet EDI enabled this practice cannot be brought into immediate widespread use and an alternative (temporary) strategy must be provided.

This section provides the guidelines for the bar code labels used by the suppliers that are not EDI enabled. These labels may be used for domestic, interplant and international shipments.

The shipment label refers to single item and single order.

In case of multi items per package, it is recommended to use 2-D code. The data structure has to be mutually agreed between trading partners.

6.2 Data elements

Following is the recommended list of data elements for the non-EDI shipment label. The type of shipment determines which data elements are required on the label.

Whether the coding is represented in a bar code or a 2-D code should be mutually agreed between trading partners. In any case, the 'license plate' data element, shall be present in the form of a bar code.

Blanks shall not be included in the coded data.

Mandatory data elements that can optionally be coded in linear or 2-D code, shall be specified in human readable format on the shipment label.

Data element	Data format type/length	Data Identifier (ANSI MH10.8.2)	Data presentation			Description
			Human readable	Linear Code	2-D Code	
License plate	an..35	J, 1J, 2J	M	M	O	Unique transport unit identification assigned by the label issuer. See also chapter 5.1
Customer order number	an..35	K	M	D	D	The transaction identification assigned by the ordering location.
Quantity 1)	n..15	Q	M	D	D	The number of products (pcs) in the transport unit.
Customer part number	an..35	P	M	D	D	Customer assigned part number
Piece of pieces	N/A	13Q	O	O	O	The number of boxes in the transport unit in the format X of Y
Ship to	5 X an..35	N/A	M	N/A	N/A	Ship to address for physical delivery
Ship to location code	an..35	2L	O	O	O	Location code defined by an industry standard or mutually defined
Ship to postal code	an..9	52L	O	O	O	Zip/Postal code
Ship from	5 X an..35	N/A	M	N/A	N/A	Ship from address of physical delivery
Ship from location code	an..35	3L	O	O	O	Location code defined by an industry standard or mutually defined
Ship from postal code	an..9	51L	O	O	O	Zip/Postal code
Weight	an..18	7Q	M	O	O	Gross weight of transport unit 2)
Volume / Dimensions	an..18	7Q	O	N/A	O	Volume / dimensions of transport unit 2)

- 1) Leading zeroes shall not be printed
- 2) The data identifier '7Q' requires that the quantity is followed by the 2-character ANSI X12.3 data element number 355 Unit of Measurement code

M = Mandatory O = Optional D = Depending (depending on the mutual agreement between trading partners, either the Linear code or 2-D code shall be used) N/A Not Applicable

7 Two-dimensional symbol data structure

The Message format has to be in accordance with the ISO/IEC 15434 (Data syntax).

From a practical standpoint, complete EDI messages should not be coded in 2-D symbol, due to the volume of data, which might exceed the capacity of the reading equipment.

EDIFICE recommends the use of the format indicator which specifies selected data identifiers (ANSI MH10.8.2) or structured data using UN/EDIFACT segments.

i.e. Format indicator '04' structured data using UN/EDIFACT segments
Format indicator '06' data using identifiers (ANSI MH10.8.2)

8 General layout and location

8.1 Layout

Layout refers to the positioning of the fields on the label. Layout of the bar code or two-dimensional symbols will depend on the available space on the label, packaging techniques and other factors.

When multiple bar code symbols or two-dimensional symbols are to be placed in line or in contiguous fields, care must be taken to avoid layouts that inhibit scanning the individual data elements. The layout of the label should be designed to accommodate the package size and should facilitate scanning.

8.2 Location

Location refers to the positioning of the label on the package. The location of the labels is largely dependent upon the size and configuration of the container. Place the labels such that they can be easily scanned or read.

Care must be taken to ensure that printed symbols remain to be used properly by the points in the distribution chain. Label stock size should be selected to be appropriate to the packaging being marked. Print quality of the label should not be damaged to the point of being unusable because of where the label is placed. It is advisable that labels are placed on two adjacent vertical sides of cartons and pallet loads (agreement between trading partners)

Strapping and taping SHALL NOT obstruct the label. If the specified label cannot be affixed to the package/container because of size or design, special arrangement must be made with the ship to location.

8.3 Label size and material

A label size of 105 mm in width and 148 mm in height should accommodate the data requirements of the label.

The label media shall be white stock or buff thermal stock with black print.

Adhesive types can be pressure sensitive or dry gummed as long as adherence to the package is assured and application is wrinkle free.

8.4 Titles

8.4.1. Bar coded data element titles

Titles are mandatory for all bar coded data elements. The title shall be preceded by the appropriate data identifier enclosed in parenthesis e.g. (Q) QUANTITY. Titles should be in accordance with the short titles of the ANSI MH10.8.2 Data Identifiers.

8.4.2. Two-dimensional coded data element titles

The 2-D coded data elements titles that are intended to be printed in human readable format shall follow the rules for bar code data element titles (see 9.4.1)

8.4.3. Two-dimensional symbol titles

When two-dimensional symbols are used, each symbol shall be identified by the following titles displayed above the 2-D symbol:

A 2-D symbol containing data meant for :

- the supplier only shall be identified by the title 'SPLR'.
- the customer only shall be identified with the title 'CUST'.
- both the supplier and the customer shall be identified with the title 'SPLR/CUST'.

8.5 Human readable interpretation

For bar coded data elements, the human readable interpretation shall include all the data within the code less the data identifier.

The data identifier is enclosed in parentheses and is put in front of the title (see 9.4.1) which is followed by the human readable interpretation.

This information is to be printed above the bar code.

For 2-D coded data elements, the human readable interpretation shall include these data that are intended to be printed.

8.6 Text size

The character size of the 'Ship to Address' shall be no smaller than 4,3 mm, and in any case should be larger than the character size of the 'Ship from Address' text.

9 Symbology and environmental considerations

9.1 Linear code symbology

The linear code symbologies shall be one of the following:

- 'Code 39' in accordance with EN-800 Bar Coding - Symbology specification "Code 39"
- 'Code 128' in accordance with EN-799 Bar Coding - Symbology specification "Code 128"

9.1.1. "X" Dimension

The narrow element dimension (X dimension) range should be from 0,254 to 0,432 mm as determined by the printing capability of the supplier/printer of the label.

9.1.2. Print quality

The minimum symbol grade shall be 1,5/10/660 where:

- minimum print quality grade at point of production = 1,5 (C);
- measurement aperture = 0,254 mm;
- inspection wavelength = 660 nanometers +/- 10 nanometers

9.2 Two-dimensional symbology

The recommended use for 2-D symbology is PDF417.

Upon mutual agreement between trading partners other international standardised symbologies such as DataMatrix can be used.

- PDF417 in accordance with ISO/IEC 15438 Symbology Specification – PDF417
- DataMatrix in accordance with ISO/IEC 16022 Symbology Specification – DataMatrix.

9.2.1. "X" Dimension

The narrow element dimension X should be 0,254 mm (cell size for DataMatrix / narrow element dimension for PDF417) as determined by the printing capability of the supplier/printer of the label.

9.2.2. Print quality

To check the print quality of the 2-D codes, appropriate equipment is required. This equipment is currently not available. There is a common lack of sufficient knowledge and experiences on this field.

For DataMatrix, the overall symbol grade 2,0 is recommended by ISO/IEC 16022.

9.2.3. Error correction level

The PDF417 symbol error correction level depends on the number of data code words (see recommendation in ISO/IEC 15438)

The DataMatrix ECC 200 uses the automatic error correction as specified in ISO/IEC 16022.

Appendix 1 Glossary/Definitions

2-D CODE	Machine readable symbol which must be examined both vertically and horizontally to read the entire message. Two dimensional symbols may be one of two types of machine readable symbols: matrix symbols and multi-row symbols. 2-D symbols have error detection and may include error correction.
ADC	Automatic Data Capture
ANSI	American National Standards Institute (ANSI) is a group of technical individuals from various companies that develop standards that are recognised throughout North America. There are several committees and subcommittees which focus on unique items of concern, EDI is one of them. COMPANY is a member of this group and has adopted the ASC X12 format for all EDI business transactions that are used between trading partners within the US.
BAR CODE	The predetermined pattern of bars and spaces which represents numeric or alphanumeric information in machine readable form.
CODE 39	The '3 of 9' code is a variable length, discrete, self-checking, bi-directional, alpha-numeric bar code.
CODE 128	This is a variable length, bi-directional, continuous, self-checking, alpha-numeric bar code.
CEN	Comité Européen de Normalisation, the European Committee for Standardisation.
DATAMATRIX	A matrix 2-D symbol, error correcting, capable of encoding various character sets including strictly numeric data, alphanumeric data and all ISO 646 (ASCII) characters. DataMatrix is designed using vision based scanning equipment.
DEPENDING	Indicates that the entity must be sent if a particular defined condition or set of conditions exists.
EIA	Electronic Industry Association, a council of the US electronics industry.
EN	European Norm
MITL	Multi Industry Transport Label (EN 1573)
ISO	International Standardisation Organisation.
LICENSE PLATE	License plate number is a unique number, regardless of use, specified by the label issuer and applied to a transport unit to provide access to traceability data regardless of content and destination and valid for its lifetime.
LINEAR CODE	See Bar code
OPTIONAL	Indicates that the entity is optional and may be used if



previously agreed between the trading partners.

- PDF417** Error correcting, 2-D, multi-row symbol. PDF417 symbols are constructed from 4 bars and 4 spaces over 17 modules.
- UCC** Uniform Code Council is the central code management agency responsible for administering the UPC numbering system.
- UPC** Universal Product Code is the number assigned to products that are distributed and sold through retail dealer networks.
- UN/EDIFACT** United Nations Electronic Data Interchange for Administration, Commerce and Transport, is a technical group that is responsible for defining and developing international standards for EDI. The intention of this group is to define standards that will be used internationally between trading partners. COMPANY is also participating in this activity.

Appendix 2: Shipment labels Layout examples

B2B shipment label


Ship from <i>SHIP FROM</i>	Ship to <i>SHIP TO</i>
Weight <i>Weight</i>	
(J) License plate: LEXYZ12345678901 	

Figure 2

The shaded area is available to specify the optional data elements.

Non-B2B shipment label




<p>Ship from</p> <p><i>SHIP FROM</i></p>	<p>Ship to</p> <p><i>SHIP TO</i></p>
<p>Weight</p> <p><i>Weight</i></p>	<p><i>Customer Order Number</i> <i>Quantity</i> <i>Customer Part Number</i> <i>(Bar code or 2-D code)</i></p>
<p>(J) License plate: LEXYZ12345678902</p> 	

Figure 3

The shaded area is available to specify the optional data elements.

Example of a shipment label – DataMatrix

Ship from BCL Best Components Ltd 90 Megahertz Lane Chiptown SN3 1RJ	Ship to Fine Computers Limited 521 Megabyte Drive Graphtown 7R3BY1 UK
Weight/Volume 17 kg	
(K) Order Number: G90K7-M-C501-292027 (Q) Quantity: 250 (P) Part Number: A12345-B6789	
(J) LEXYZ12345678904 (K) G90K7-M-C501-292027 (Q) 250 (7Q) 17KG* (P) A12345-B6789	 <p>BPLRCUBT DataMatrix ECC200 Data syntax according to ISO/IEC 15434</p>
(J) License plate: LEXYZ12345678904 	

(* The data identifier '7Q' requires that the quantity is followed by the 2-character ANSI X12.3 data element number 355 Unit of Measurement code i.e. KG for Kilogram)

Data syntax according to ISO/IEC 15434 in 2D-Code DataMatrix:
 j>RgD6Gsj LEXYZ12345678904GgK90K7-M-C501-292027GgQ250Gg7Q17KGGgPA12345-B6789gEOT

DataMatrix ECC 200: Cell size 0,33 mm x 0,33 mm

Figure 5

Appendix 3 : UN/EDIFACT Shipment information, DESADV

EDI sample used to produce labels (based on sample 4 from EDIFICE DESADV issue EDDS06)

International shipment going by road.
Seller has responsibility for the transport of goods.

The following example of a Despatch Advice message provides the description of a shipment of goods that have been despatched by the supplier of the goods, identified as Company A. The buyer of the goods is identified as Company B and the warehouse where the goods are to be delivered to is identified as Location B.

The Despatch Advice, reference number 98-5678ML, is sent on the 20th April 1998 at 14:50. The goods to be despatched are a complete shipment of the goods purchased on the 17th April 1998 according to the buyer's purchase order number PO505054. They are despatched on the 20th April at 14:30 and are expected to arrive the next day at 12:00.

The despatch advice refers to a shipment of goods containing 2 pallets, each pallet uniquely identified by a bar coded License plate (Package ID) number.

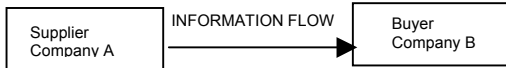
The first pallet is identified by a License plate (package ID) number LEABCXXX90 and contains 3 cartons of the product identified by the number ABCDE-AA, each carton containing a number of units. The pallet is a standard 800mm x 1200mm pallet with a gross weight of 263.2 kilograms.

The second pallet has a License plate (package ID) number of LEABCXXX91 and has a mixed product load; 1 carton of product 12345-AA, and 2 cartons of product 67890-AB. The pallet has the same dimensions as the first one with a gross weight of 305.1 kilograms.

A contact code is given for COMPANY A along with a telephone number.

The despatch advice describes the shipment as being composed of two pallets, providing for each pallet a description of the type of pallet in terms of dimensions and weight, as well as the pallet's unique identity number (serial shipping container code). The contents of each pallet is then described in terms of the despatch units it contains including the package serial number.

The following example uses PACKAGE related logic i.e. there is a one to one relationship between the CPS and PAC segments.



EDI Despatch advice
 98-5678ML
 Sent 20-4-98 at 14:50
 COMPANY A contact John Smith
 Telephone no. 883306

Shipment Reference
 PO number = PO 505054

Ship from Company A	Ship to Company B Location B
Weight 263,2 kg	

(2S) Despatch Advice No. 98-5678ML

ABCDE-AA

(J) License plate: LEABCXX90

Pallet 1 800 x 1200 mm
 License plate (Package ID) number = LEABCXX90
 Gross weight 263.2 kgs

Ship from Company A	Ship to Company B Location B
Weight 305,1 kg	

(2S) Despatch Advice No. 98-5678ML

12345-AA
67890-AB

(J) License plate: LEABCXX91

Pallet 2 800 x 1200 mm
 License plate (Package ID) Number = LEABCXX91
 Gross weight 305.1 kgs

PHYSICAL FLOW



Reception of goods:
 Despatched 20-4-98 at 14:30
 Est. Arrival 21-4-98 at 12:00



UNH+1+DESADV:D:97A:UN:EDDS05' - Message Header

Header Section

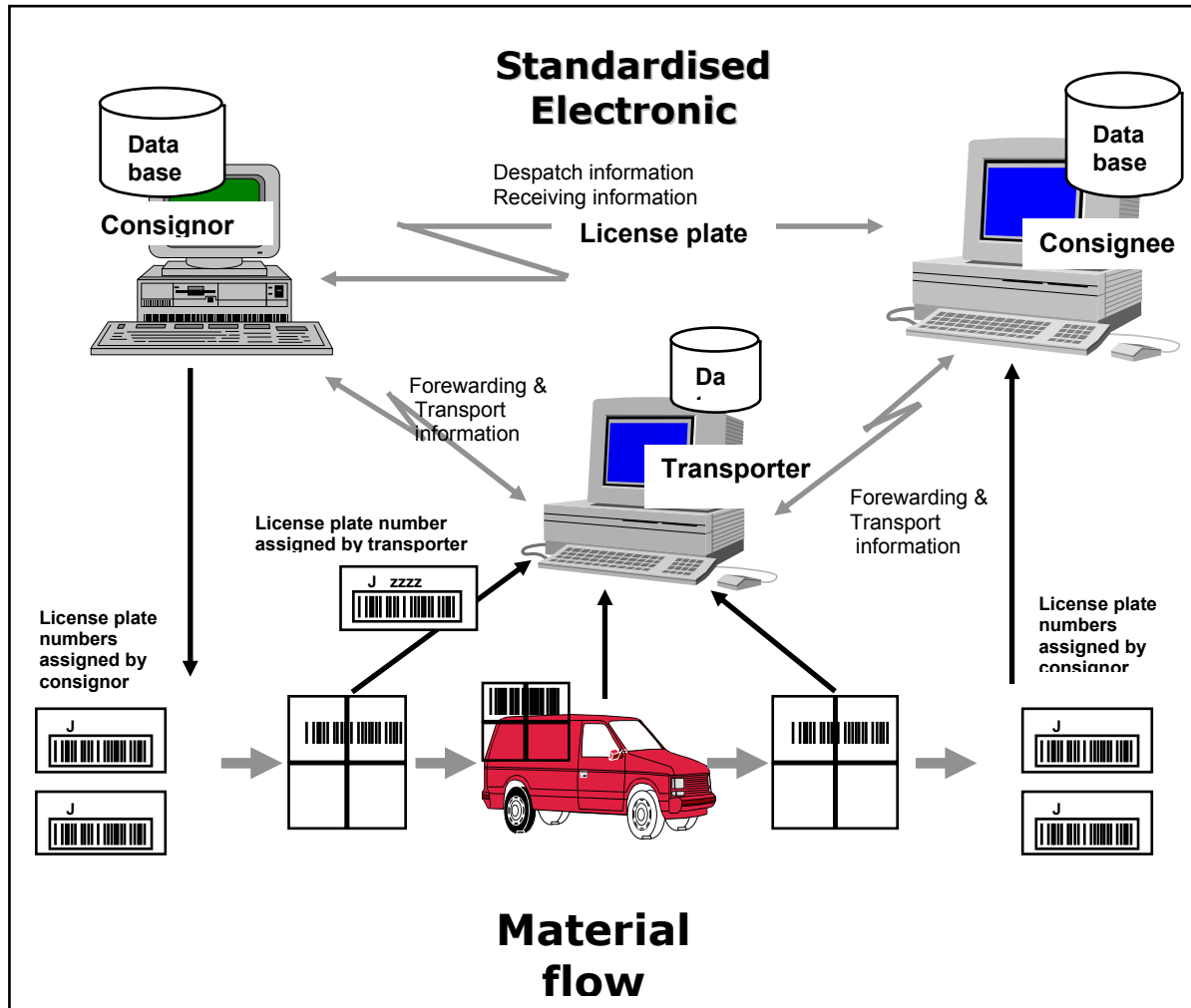
BGM+351+98-5678ML+9'	- Shipment 98-5678ML
DTM+137:199804201450:203'	- Date/time of despatch adv.
RFF+CMR:RD9817'	- Road consignment no.
MEA+WT+AAD+KGM:568.3'	- Total gross shipment weight
MEA+CT+SQ+NMP:2'	- Number of unit loads
MOA+39:3500:USD'	- Invoice amount is \$3500
NAD+SE+COMPANYA:::91'	- Code assigned by Seller
CTA+IC+John Smith'	- Contact person
COM+883306:TE'	- Contact telephone number
NAD+BY+COMPANYB:::91'	- Buyer code assigned by Seller
NAD+DP+LocationB:::92'	- Ship to location
TDT+20+++3++++:::H1234 CFD'	- Main-carriage, by road.
LOC+5+COMPANYA:::91'	- Place of departure assigned by Seller
DTM+11:199804201430:203'	- Actual ship date and time
LOC+7+COMPANYB:::91'	- Place of delivery assigned by Seller
DTM+17:199804211200:203'	- Est delivery date and time
EQD+TE'	- Trailer
SEL+ABCD123456+CU'	- Trailer seal no. assigned by Customs

Detail Section

CPS+1'	- 1st unit load
PAC+1++SW'	- Unit load is shrinkwrapped
MEA+WT+G+KGM:263.2'	- Gross weight in kilograms
QTY+52:3'	- Unit load contains 3 boxes
HAN+HEA::EAN'	- Heavy cargo
PCI+17'	- Labels/ID's supplied by seller
GIN+VZ+LEABCXXX90'	- License plate - Unit identification
LIN+1++ABCDE-AA:VP:::91'	- First line item
QTY+12:1250:PCE'	- 1250 x ABCDE-AA despatched
GIN+BN+999001:999500'	- Serial numbers
RFF+ON:PO505054'	- Purchase Order No
DTM+171:19980417:102'	- Date of PO
RFF+IV:V1013-015'	- Invoice number
CPS+2'	- 2nd unit load
PAC+1++SW'	- Unit load is shrinkwrapped
MEA+WT+G+KGM:305.1'	- Gross weight in kilograms
QTY+52:3'	- Unit load contains 3 boxes
PCI+17'	- Labels/ID's supplied by seller
GIN+VZ+LEABCXXX91'	- License Plate - Unit identification
LIN+1++12345-AA:VP:::91'	- First line item
QTY+12:50:PCE'	- 50 x 12345-AA despatched
GIN+BN+999001:999050'	- License plate (Package ID) number
RFF+ON:PO505054'	- Purchase Order No
DTM+171:19980417:102'	- Date of PO
RFF+IV:V1013-015'	- Invoice number
LIN+2++67890-AB:VP:::91'	- Second line item
PIA+1+SD12345:BP:::92'	- Buyer's part number
QTY+12:200:PCE'	- 200 x 67890-AB despatched
ALI+US'	- Country of origin
GIN+BN+998001:998200'	- Serial numbers
RFF+ON:PO505054'	- Purchase Order No
DTM+171:19980417:102'	- Date of PO
RFF+IV:V1013-015'	- Invoice number
UNT+53+1'	- Message Trailer

Appendix 4 : Concept for Bar code and EDI in shipment oriented processes.

Extract of the EDIFICE Bar code brochure.



Despatch information: DESADV/ PIP 3B2
 Receiving Information: RECADV/ PIP 4B2
 Forwarding & Transport Information : IFTMIN; IFTMAN; IFTSTA/ PIP 3B3

The Outside section shows the information and material flow between consignor, transporter and consignee. This picture describes a business scenario where all three partners are using B2B, exchanging transactions that comply to the International standards such as UN/EDIFACT or RosettaNet. By using one bar coded identification number for the transport package (Package identification/License plate) the shipment units can be identified and the associated electronic information accessed.

The picture also shows the different B2B messages which are interchanged between consignor, transporter and consignee. These messages come direct from the database of one partner into the database of the other partner. Messages can be exchanged between the three parties at differing times during the distribution process.

The defined transport unit from the consignor (License plate numbers xxxx and yyyy) must be delivered to the consignee in the same condition and with the same identification number. The transporter may, however, make changes to the package combination and create his own identification number, such as License plate number zzzz. Information must, however, be available



at all times under the original consignors identification number (License plate numbers xxxx and yyyy).