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Extract from IMPLEMENTATION GUIDE TRANSACTION "PCO EXPORT SHIPPING MANIFESTO"

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technical Documentation: http://www.ebiz.enea.it

XML Schemas repository: http://www.ebiz.enea.it/moda-ml/repository/schema/draft/default.asp

Guides repository: http://www.ebiz.enea.it/moda-ml/repository/guide/draft/default.asp

Guide filename: TRC016-eBIZ-PcoExportShippingManifesto.pdf

0. PREMISE

This document contains a proposal for the updating and extension of eBIZ specifications starting from the eBIZ version 2018. Under the name of 'Draft version' it is reported the result of an extensive work of analysis and consultation aimed at developing and maintaining eBIZ specifications.

In particular, the content of this proposal is the result of various activities, mainly those carried out within the framework of the **TRICK project** funded by the European Commission: grant agreement 958352, call H2020-LOW-CARBON-CIRCULAR-INDUSTRIES-2020 / H2020-LCCI-2020-EASME-twostage.

The technical contents are backwards compatible with the latest official published version, with the exclusion of the totally new concepts added explicitly for the version that are thought as incremental evolution of the knowledge base.

1. BUSINESS DESCRIPTION

1.1 Scope

This guide aims to illustrate to fashion companies the standard XML format of the document type "Shipping dossier manifesto, providing instructions for its use in the context of a TRACEABILITY SYSTEM involving Fashion Manufacturers, their customers, third parties and in case customs authorities, eBusiness and eCommerce platforms. All the rules necessary for the construction and validation of the document are expressed through a specific XML schema, which is presented in detail in the paragraph "Implementation Guide".

1.2 Generalities

This document has the purpose of summarizing the list of documents associated with a particular customs declaration and relative invoice; the documents are referenced so that they can be traced uniquely; the manifest and the dossier are also associated with the codes of the platform that collects the dossier materials. div> This document has a double function:

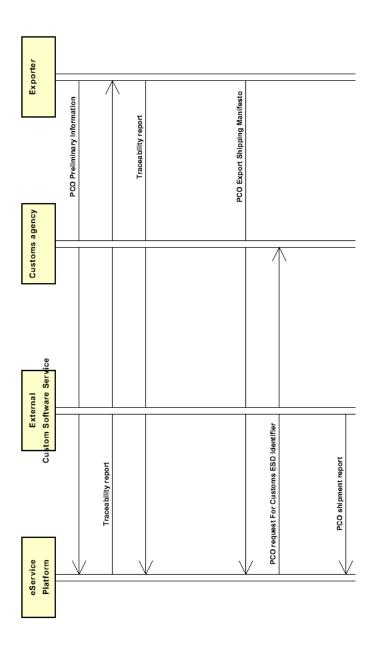
- can be used to RETIEVE or SEND the complete dossier from the platform

Or

- it can be used to NOTIFY to a partner (for exae customer of a job) or to the traceability system an update of the dossier with new documents

1.3. Possible scenario

S1.1 PCO service execution



2. IMPLEMENTATION GUIDE

2.1 General structure of XML document

All the business data that can be exchanged through this class of documents are shown in the following "document structure", that provides a simplified vision of the Schema. In particular:

- the two numbers following each element define its "cardinality" (minimum and maximum number of occurrencies); the minimum equal zero indicates that the element is optional, the minimum greater than zero indicates that is mandatory;
- the bold character denotes the complex elements (aggregates of simple elements) that were built for the sake of functionality and re-usability of some complex informations sets. The child elements in each parent element are easily spotted as "indented";
- the symbol "@" denotes an attribute of the preceding element; here "the usage indicator (optional, required, ...) is shown in square brackets.

Structure

```
PCOExportShippingManifesto
@version [Optional] [Default= draft]
@useProfile [Optional]
  | msgN 1-1
   ESMId 1-1
    @schemeID [Optional]
   msgDate 1-1
    @dateForm [Optional]
  | issuerParty 1-1
       id 0-1
        @numberingOrg [Optional]
        legalName 0-1
        dept 0-1
        subDept 0-1
        person 0-1
        .
@email [Optional]
        @phone [Optional]
        @fax [Optional]
        street 0-1
        city 0-1
        subCountry 0-1
        country 0-1
        postCode 0-1
        geoCoordinates 0-1
        @um [Optional] [Default= DEGD]
        @geoRefSystem [Optional]
            xGeoCoord 1-1
            yGeoCoord 1-1
          ZGeoCoord 0-1
        issuerAccreditationInfo 0-1
    ESDId 1-1
    @schemeID [Optional]
   invoiceDoc 1-99
        docID 1-1
        @numberingOrg [Optional]
        docDate 1-1
        @dateForm [Optional]
        title 0-unbounded
        @In [Optional]
       description 0-unbounded
        @In [Optional]
        validityStart 0-1
        @dateForm [Optional]
```

validityEnd 0-1

```
@dateForm [Optional]
    attachment 0-1
    @uid [Optional]
        fileName 0-1
        @numberingOrg [Optional]
        binaryObject 0-1
        @format [Optional]
        @mime [Optional]
        @encoding [Optional]
        @characterSet [Optional]
        externalReference 0-99
            uri 1-1
            @isURL [Optional] [Default= true]
            mimeCode 0-1
            formatCode 0-1
            encodingCode 0-1
            characterSetCode 0-1
        hashFootprint 0-1
        @schemeID [Optional]
        @hashMethod [Required]
        blockChainReference 0-9
            uri 1-1
            @isURL [Optional] [Default= true]
            transactionReceipt 1-9
    note 0-99
    @numberingOrg [Optional]
    @codeList [Optional]
    @noteLabel [Optional]
tracedObjectRef 1-unbounded
    objectInstanceIdentification 1-1
    @objectInstanceTypeCode [Required]
        objectID 1-9
        @schemeID [Required]
    TRRN 1-1
    @schemeID [Optional]
    TRDInfo 1-1
        TRDN 1-1
        @schemeID [Optional]
        uri 1-1
        @isURL [Optional] [Default= true]
        hashFootprint 1-1
        @schemeID [Optional]
        @hashMethod [Required]
        blockChainReference 0-9
            @isURL [Optional] [Default= true]
          transactionReceipt 1-9
externalRefDoc 0-99
   docID 1-1
    @numberingOrg [Optional]
    docDate 0-1
    @dateForm [Optional]
    title 0-unbounded
    @In [Optional]
    description 0-unbounded
    @In [Optional]
    validityStart 0-1
    @dateForm [Optional]
    validityEnd 0-1
    @dateForm [Optional]
    documentType 0-1
    issuerParty 0-1
        id 0-1
        @numberingOrg [Optional]
        legalName 0-1
      | dept 0-1
```

```
subDept 0-1
    person 0-1
    .
@email [Optional]
    @phone [Optional]
    @fax [Optional]
    street 0-1
    city 0-1
    subCountry 0-1
    country 0-1
    postCode 0-1
    geoCoordinates 0-1
    @um [Optional] [Default= DEGD]
    @geoRefSystem [Optional]
        xGeoCoord 1-1
        yGeoCoord 1-1
      | zGeoCoord 0-1
   issuerAccreditationInfo 0-1
signatureInformation 0-1
    signatureTypeCode 1-1
    signatoryParty 0-unbounded
        id 0-1
        @numberingOrg [Optional]
        legalName 0-1
        dept 0-1
        subDept 0-1
        person 0-1
        @email [Optional]
        @phone [Optional]
        @fax [Optional]
        street 0-1
        city 0-1
        subCountry 0-1
        country 0-1
        postCode 0-1
        geoCoordinates 0-1
        @um [Optional] [Default= DEGD]
        @geoRefSystem [Optional]
            xGeoCoord 1-1
            yGeoCoord 1-1
            zGeoCoord 0-1
attachment 0-1
@uid [Optional]
    fileName 0-1
    @numberingOrg [Optional]
    binaryObject 0-1
    @format [Optional]
    @mime [Optional]
    @encoding [Optional]
    @characterSet [Optional]
    externalReference 0-99
        uri 1-1
        @isURL [Optional] [Default= true]
        mimeCode 0-1
        formatCode 0-1
        encodingCode 0-1
        characterSetCode 0-1
    hashFootprint 0-1
    @schemeID [Optional]
    @hashMethod [Required]
    blockChainReference 0-9
        uri 1-1
        @isURL [Optional] [Default= true]
      | transactionReceipt 1-9
note 0-99
@numberingOrg [Optional]
@codeList [Optional]
@noteLabel [Optional]
```

note 0-9 @numberingOrg [Optional] @codeList [Optional] @noteLabel [Optional]

2.2 Detailed description of document elements

Following tables show all elements (complex and simple) used in this document. Description includes: 1) element's information: xml tag, name, brief description, 2) data type and sintax constraints, 3) information about usage of the element in a particular position in the document: aggregation notes..

2.2.1 Complex elements (Aggregate Business Information Entities)

Complex elements are those elements whose content is composed of other elements (childs). Complex elements are alphabetically ordered.

attachment	an attached document. An attachment can refer to an external document or be include d with the document being exchanged XPath PCOExportShippingManifesto/invoiceDoc/attachment: 0-1 - note for this position: indicates where to find the document or contains it as a binary o bject (the second option is not recommended for practical reasons) XPath PCOExportShippingManifesto/externalRefDoc/attachment: 0-1 - note for this position: indicates where to find the document or contains it as a binary o bject (the second option is not recommended for practical reasons)
blockChainReference	blockchain reference - base type: string, max length: 80, XPath PCOExportShippingManifesto/tracedObjectRef/TRDInfo/blockChainReference: 0-9 - note for this position: blockchain references related to the Traceability Dossier (TRD)
externalRefDoc	external document, used to refer generic office documents (like pdf, docx, xls, for exa mple shop window instructions) - base type: , XPath PCOExportShippingManifesto/externalRefDoc: 0-99 - note for this position: Example: packing lists, shipment documentation, any other file of the dossier not contained in the TRDs (In the 'attachment' element it is mandatory to fill the 'binaryObject' element AND/OR the 'external reference/uri' and 'hashfootprint' elements)
externalReference	details about an external object, such as a document stored at a remote location
geoCoordinates	geographical coordinates
invoiceDoc	file of an invoice or reference to it. In the 'attachment' element it is mandatory to fill the 'binaryObject' element AND/OR the 'external reference/uri' and 'hashfootprint' element s - base type: , XPath PCOExportShippingManifesto/invoiceDoc: 1-99 - note for this position: invoice to which the shipment is associated. It can be repeated if multiple invoices are associated with the shipment.
issuerParty	Details of the party that issued the document base type: Nad,
objectInstanceIdentification	Identification of an object instance, it could contain more than one identifier of the sam e object as long as they refer to different identification schemes XPath PCOExportShippingManifesto/tracedObjectRef/objectInstanceIdentification: 1-1 - note for this position: this is the traceability number (TRN), it is the identifier of the ph ysical traced object (lot or instance)
signatoryParty	Details of the party that signed the document base type: Nad,
signatureInformation	information about the document signature
tracedObjectRef	reference to the traceability documentation (Traceability Report and related dossier) a bout ONE traced product instance or lot.
TRDInfo	Descriptor of a Dossier relating to a Traceability Report (group of files, zip for example, containing the report plus related documentation)
	1

2.2.2 Simple elements (Basic Business Information Entities)

Simple elements are those elements whose content is characterized by a data type plus a domain of possible values. Simple elements are alphabetically ordered.

binaryObject	a binary large object containing an attached document, Coding 'base64Binary' is reccomended base type: base64Binary,
@characterSet	the character set of the binary object (examples UTF-8, UTF-16, Windows-1252, ISO-8859-7,) - base type: normalizedString,
characterSetCode	the character set of an external document (examples UTF-8, UTF-16, Windows-1252, ISO-8859-7,) - base type: normalizedString,
city	name of the city (town, village) - base type: string, max length: 40,
@codeList	it specifies the URL where the list of codes used to make an instance of the element c an be found - base type: string, max length: 255, XPath PCOExportShippingManifesto/note/@codeList: [Optional] - note for this position: must be used to provide (URL) the list of codes used in "noteLa be!" XPath PCOExportShippingManifesto/externalRefDoc/note/@codeList: [Optional] - note for this position: must be used to provide (URL) the list of codes used in "noteLa be!" XPath PCOExportShippingManifesto/invoiceDoc/note/@codeList: [Optional] - note for this position: must be used to provide (URL) the list of codes used in "noteLa be!"
country	code of the nation - base type: string, cod. table: T10 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_T10.xml
@dateForm	format used for the date - base type: string, cod. table: NT29 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT29.xml
dept	name or code of a department - base type: string, max length: 40,
description	free text description. The content of the element must be unique, it might be translated and repeated into more languages (thus no more than one instance for each language). - base type: string, max length: 250, XPath PCOExportShippingManifesto/externalRefDoc/description: 0-unbounded - note for this position: Only one instance of this element for each different value of 'In' attribute (language) XPath PCOExportShippingManifesto/invoiceDoc/description: 0-unbounded - note for this position: Only one instance of this element for each different value of 'In' attribute (language)
docDate	date of issue of the referenced document, according to one of the patterns YYYY-MM-DD, YYYY-MM-DD:HH-MM or YYYY-WW base type: string,
docID	identification number of the referenced document - base type: string, max length: 80,
documentType	type or class to which the document belongs - base type: string, cod. table: T21 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_T21.xml
@email	electronic mail address of the contact person within a Party - base type: string, max length: 250,
@encoding	specifies the decoding algorithm of the binary object - base type: normalizedString,

encodingCode	the encoding/decoding algorithm used with the external object (example is 'base64Bin ary') - base type: normalizedString,
ESDId	Identifier of the export shipping dossier submitted to a customs agency and associated to a customs declaration - base type: string, XPath PCOExportShippingManifesto/ESDId: 1-1 - note for this position: it is the identifier of the dossier containing the manifesto and wh ich is described by the manifesto
ESMId	Identifier of a Export Shipping Manifesto assigned by the manifesto issuer - base type: string,
@fax	fax number of the contact person within a Party - base type: string, max length: 35,
fileName	unique identifier (name) of the file - base type: string, max length: 255,
@format	the format of the binary content (examples xml, pdf, doc,) - base type: string,
formatCode	the format of the external object (examples xml, pdf, doc,) - base type: normalizedString,
@geoRefSystem	georeference system adopted for the coordinate (in example wgs84 with decimal degree o degree with minute and seconds) - base type: string,
hashFootprint	footprint obtained by applying an hashing algorythm - base type: string, max length: 1024, XPath PCOExportShippingManifesto/tracedObjectRef/TRDInfo/hashFootprint: 1-1 - note for this position: the hash must be related to the whole Traceability Dossier (TR D)
@hashMethod	type of used hashing algorythm - base type: string, max length: 80, cod. table: NT333 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT333.xml
id	primary identification code of a Party; it is recommended to use an EORI number (with @numberingOrg= "EO") or the format: nation code (ISO 3166) + national tax code (i.e. VAT identification number) with @numberingOrg= "MF" - base type: string, max length: 15,
issuerAccreditationInfo	accrediting information of the issuer of the document - base type: string,
@isURL	it indicates if the referred element is an URL (true) or not (false) - base type: boolean, XPath PCOExportShippingManifesto/tracedObjectRef/ TRDInfo/blockChainReference/uri/@isURL: [Optional] [Default= true] - note for this position: usage of URLs is recommended XPath PCOExportShippingManifesto/externalRefDoc/ attachment/externalReference/uri/@isURL: [Optional] [Default= true] - note for this position: usage of URLs is recommended XPath PCOExportShippingManifesto/invoiceDoc/attachment/ externalReference/uri/@isURL: [Optional] [Default= true] - note for this position: usage of URLs is recommended XPath PCOExportShippingManifesto/externalRefDoc/ attachment/blockChainReference/uri/@isURL: [Optional] [Default= true] - note for this position: usage of URLs is recommended XPath PCOExportShippingManifesto/invoiceDoc/attachment/ blockChainReference/uri/@isURL: [Optional] [Default= true] - note for this position: usage of URLs is recommended XPath PCOExportShippingManifesto/tracedObjectRef/
	TRDInfo/uri/@isURL: [Optional] [Default= true] - note for this position: usage of URLs is recommended

@In	Language code base type: string, cod. table: NT60 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT60.xml
@mime	the mime type of the binary object - base type: normalizedString,
mimeCode	mime type of the external object - base type: normalizedString,
msgDate	date of issue of the present message (xml document), according to one of the patterns YYYY-MM-DD, YYYY-MM-DD:HH-MM or YYYY-WW base type: string,
msgN	identification number given to the message (xml document) by its issuer. In case of mo re despatches of the same business document, it changes base type: string, max length: 35,
note	free text or structured (computer processing) note. For note structuring use the attribut es "noteLabel" and "codelist" - base type: string, max length: 350,
@noteLabel	subject qualifier of a note - base type: string, max length: 35, XPath PCOExportShippingManifesto/externalRefDoc/note/@noteLabel: [Optional] - note for this position: must be used to qualify the subject of the note XPath PCOExportShippingManifesto/invoiceDoc/note/@noteLabel: [Optional] - note for this position: must be used to qualify the subject of the note XPath PCOExportShippingManifesto/note/@noteLabel: [Optional] - note for this position: must be used to qualify the subject of the note
@numberingOrg	code specifying the organisation who has created or owns the coding or numbering sy stem - base type: string, cod. table: NT6 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT6.xml XPath PCOExportShippingManifesto/externalRefDoc/note/@numberingOrg: [Optional] - note for this position: must be used to specify the organization that created the list of codes used in "noteLabel" XPath PCOExportShippingManifesto/invoiceDoc/docID/@numberingOrg: [Optional] - note for this position: here can be specified whose document numbering is used (e.g.: Client, Supplier,) XPath PCOExportShippingManifesto/note/@numberingOrg: [Optional] - note for this position: must be used to specify the organization that created the list of codes used in "noteLabel" XPath PCOExportShippingManifesto/invoiceDoc/note/@numberingOrg: [Optional] - note for this position: must be used to specify the organization that created the list of codes used in "noteLabel" XPath PCOExportShippingManifesto/externalRefDoc/docID/@numberingOrg: [Optional] - note for this position: here can be specified whose document numbering is used (e.g.: Client, Supplier,)
objectID	Object identifier - base type: string, XPath PCOExportShippingManifesto/tracedObjectRef/ objectInstanceIdentification/objectID: 1-9 - note for this position: multiple values of objectID are allowed for different representati ons of the same object that must differ for the value of schemeID. In traceability transa ctions there must be at least the UNIQUE code assigned by the platform (e.g. TRN)
@objectInstanceTypeCode	code that identifies the type of object instance - base type: string, cod. table: NT202 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT202.xml
person	name of a person (e.g. contact person within an organization) - base type: string, max length: 40,
@phone	phone number of the contact person within a Party - base type: string, max length: 35,
postCode	code defining the postal zone - base type: string, max length: 10,
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@schemeID	identifier of an identification scheme - base type: string, XPath PCOExportShippingManifesto/externalRefDoc/ attachment/hashFootprint/@schemeID: [Optional] - note for this position: specify for which system this hash footprint might be used as id entifier (for example HDFS system) XPath PCOExportShippingManifesto/tracedObjectRef/TRRN/@schemeID: [Optional] - note for this position: Indicate the issuer of the number, for example "TRICK" XPath PCOExportShippingManifesto/invoiceDoc/attachment/ hashFootprint/@schemeID: [Optional] - note for this position: specify for which system this hash footprint might be used as id entifier (for example HDFS system) XPath PCOExportShippingManifesto/tracedObjectRef/ TRDInfo/hashFootprint/@schemeID: [Optional] - note for this position: specify for which system this hash footprint might be used as id
signatureTypeCode	entifier (for example HDFS system) indicator of existing and type of signature - base type: string,
street	street and building number identifying a location - base type: string, max length: 80,
subCountry	short name or code of the sub-country entity - base type: string, max length: 9,
subDept	name or code of a department - base type: string, max length: 40,
title	document title - base type: string, XPath PCOExportShippingManifesto/externalRefDoc/title: 0-unbounded - note for this position: Only one instance of this element for each different value of 'In' attribute (language) XPath PCOExportShippingManifesto/invoiceDoc/title: 0-unbounded - note for this position: Only one instance of this element for each different value of 'In' attribute (language)
transactionReceipt	transaction receipt on blockchain - base type: string, max length: 1024,
TRDN	Identifier of a Dossier relating to a Traceability Report (group of files, zip for example, c ontaining the report plus related documentation) - base type: string,
TRRN	Identifier of a traceability report (refer to the msgld of the report) - base type: string,
@uid	unique element identifier within the xml document - base type: string,
@um	specification of the unit of measure - base type: string, cod. table: NT7 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT7.xml XPath PCOExportShippingManifesto/externalRefDoc/
uri	Uniform Resource Identifier (URI) that identifies the external object as an Internet resource - base type: normalizedString, XPath PCOExportShippingManifesto/invoiceDoc/attachment/ blockChainReference/uri: 1-1

	 note for this position: reference to the used blockchain (example: url https://ethersca n.io/ of ethereum) XPath PCOExportShippingManifesto/tracedObjectRef/TRDInfo/uri: 1-1 note for this position: the uri should be an URL in order to retrieve the file (@isUrl=tru e) XPath PCOExportShippingManifesto/externalRefDoc/attachment/blockChainReference/uri: 1-1 note for this position: reference to the used blockchain (example: url https://ethersca n.io/ of ethereum) XPath PCOExportShippingManifesto/tracedObjectRef/TRDInfo/blockChainReference/uri: 1-1 note for this position: reference to the used blockchain (example: url https://ethersca n.io/ of ethereum)
@useProfile	use profile to which the present document if compliant if it was agreed by the parties. It is suggested a URI with reference to the firms or the URL of the profile base type: string,
validityEnd	date by which the validity ends, according to one of the patterns YYYY-MM-DD, YYYY -MM-DD:HH-MM or YYYY-WW base type: string,
validityStart	date by which the validity starts, according to one of the patterns YYYY-MM-DD, YYY Y-MM-DD:HH-MM or YYYY-WW base type: string,
@version	Dictionary version from which the instance has been created - base type: string, cod. table: NT100 http://www.ebiz.enea.it/moda-ml/repository/codelist/draft/gc_NT100.xml
xGeoCoord	geographical coordinate x , corresponding to latitude - base type: decimal,
yGeoCoord	geographical coordinate y , corresponding to longitude - base type: decimal,
zGeoCoord	geographical coordinate z , corresponding to altitude - base type: decimal, XPath PCOExportShippingManifesto/externalRefDoc/ signatureInformation/signatoryParty/geoCoordinates/zGeoCoord: 0-1 - note for this position: altitude might be omitted XPath PCOExportShippingManifesto/externalRefDoc/ issuerParty/geoCoordinates/zGeoCoord: 0-1 - note for this position: altitude might be omitted XPath PCOExportShippingManifesto/issuerParty/geoCoordinates/zGeoCoord: 0-1 - note for this position: altitude might be omitted

2.3 Suggested best practices

PCOExportShippingManifesto/externalRefDoc/

attachment/externalReference/mimeCode (mime type of the external object)

Use coding from IANA http://www.iana.org/assignments/media-types/media-types.xml

${\bf PCOExportShipping Manifesto/invoice Doc/attachment/}$

externalReference/mimeCode (mime type of the external object)

Use coding from IANA http://www.iana.org/assignments/media-types/media-types.xml

2.4 Enumeration tables

List of enumeration tables used in the XML document. You can find all the tables with the corresponding codes at: http://www.ebiz.enea.it/eBIZ/imple/eBIZTCU-draft.asp?lingua=en&pag=6

NT100 - eBIZ TCFUpstream version NT202 - Type of the object Instance NT29 - format of a date NT333 - type of hashing algorythm

NT6 - coding system owner/issuer NT60 - language, codes from ISO 639-1 (subset)

NT7 - unit of measure T10 - ISO3166 - Country T21 - type of document

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