

Supplier manual

for the creation of electronic catalogs

TÜV Rheinland Service GmbH

Version 3.0

Stand: 03.02.2014

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Note: Modifications since the previous version are marked in red.

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1 The TÜV Project

TEOS - TÜV Electronic Ordering System – is a company-wide catalog-based order system for all types of materials and services. The introduction of TEOS will connect all TÜV Rheinland Group branches (in the initial stage, all across Germany) to a uniform online catalog system.

The procurement uses two software modules for this. The SAP module R/3, which is supplemented by jCatalog's catalog software, serves as the basis. The electronic catalogs can be found on the TÜV intranet. Orders and invoices are currently still being processed and dispatched in paper form. As the next step, the online dispatch of these documents is planned, at a volume of over 60 orders per year.

jCatalog offers a software solution for product and service catalogs and provides Content Services within the TEOS project on behalf of the TÜV Rheinland Group. Supplier catalog data are accepted by jCatalog, imported into the catalog management module, checked according to agreed regulations and passed on to the Content Management of the TÜV Rheinland Group.

As a supplier of the TÜV Rheinland Group, you are required to provide your catalog in the form de-fined by us and also handle further business processes with the TÜV Rheinland Group through the new system (as, for example, in future electronic order acceptance and electronic invoice processing).

The following contacts are available to you:

- For the sending of the electronic catalog and general queries regarding the requested format:

jCatalog Hotline
Tel.: 0231 3967 350
Fax: 0231 3967 100
E-mail: tuv-teos@jcatalog.com

- For queries regarding the integration process of your catalog in TEOS:

Cuma Büyükbas
Tel.: 0221 806-3217
Fax: 0221 806-363217
E-Mail: Cuma.Bueyuekbas@de.tuv.com

TÜV Rheinland Service GmbH
Am Grauen Stein
51105 Köln

By post:
TÜV Rheinland Service GmbH
51101 Köln

2 Catalog creation process

2.1 Overview of the catalog creation process

From the delivery of the catalog data that you have supplied to jCatalog up to the transfer of the checked and released supplier catalog to the search engine of TÜV Service GmbH, the following process steps will be carried out:

Supplier:

- provision of the electronic information (formats: BMEcat or CSV) by the supplier to jCatalog
- provision of the master data information (suppliername, postal code, City, country, phone, email, logo) by the supplier to jCatalog

jCatalog:

- transfer of files to the catalog management module
- import of catalog data in the catalog database
- verification of the imported data according to specified regulations
- if necessary, correction of incorrect data (in collaboration with the supplier)
- handing over of the catalog data to the catalog management of TÜV Service GmbH

TÜV Service GmbH:

- verification of the catalog data for content correctness (product data)
- verification of the catalog data for commercial correctness (price data)
- handing over of the catalog data to the catalog search engine as the basis of the procurement process

2.2 Classifications of products: eCl@ss

E-Procurement can lead to cost advantages and transparency benefits only if a uniform classification structure with a hierarchical data structure for materials and services is available. eCl@ss is deployed as the base classification for the TEOS-System. eCl@ss is characterized by a 4-level hierarchical classification system with a keyword register of about 12,000 words. Both the expert as well as the occasional user can access eCl@ss, either via the hierarchy or the keyword-based search, to navigate through the classification and find products for procurement in a targeted fashion.

Suppliers must classify their products according to the eCl@ss 6.0.1 classification system. It is important to note here that the eProcurement catalog does not currently support eCl@ss property bars.

Should you have any queries regarding material classification in eCl@ss, please do not hesitate to contact us. General information, however, can be found on the internet at <http://www.eclass.de>.

3 Structure of the catalog template: BMEcat, Excel or CSV

The supplier catalogs can be transferred to the catalog management module of jCatalog in different formats. The TEOS system primarily uses the catalog exchange format BMEcat. You have the option of transferring your catalog as a Excel, CSV file only if it is not possible for you to supply it in the BMEcat format.

3.1 BMEcat

In standard operation, the catalog data are available in the form of a BMEcat-file. The following BME-cat versions are supported:

BMEcat 1.01, BMEcat 1.2 Exception: multiple material classification systems and variants are currently not supported

For the creation of BMEcat files, the following restrictions are to be taken into account:

Textinformation: to process information in foreign languages (especially asiatic signs) without any problems and to publish them into OPC, you have to mind, that the Encoding in the header include the following entry:

→ `<?xml version="1.0" encoding="UTF-8">`

If this entry is correct in the BMEcat file, the fiels with textinformation like DescShort, DescLong, etc. will cuses no mistakes.

Price quotation: The list price should not include sales tax, the price type in the element `<ARTICLE_PRICE>` is always the net list price.

Example: `<ARTICLE_PRICE price_type="net_list">`

Supplier-specific product categories: If you have your "own" product classification (supplier categories, see section 2.3), you can create these in the element `<CATALOG_GROUP_SYSTEM>` -with the elements `<CATALOG_STRUCTURE>`, -the assignment of the products to the supplier-specific product categories takes place with the element `<ARTICLE_TO_CATALOGGROUP_MAP>`

Property bars: At present, TEOS does not support the use of property bars (neither the eCI@ss property bars as the basic classification nor the supplier-specific property systems are supported). Hence, an entry in the element `<FEATURE>` during the catalog creation process will result in a warning message.

The mandatory fields, field lengths and field types from the product and price catalog also apply to catalog data in BMEcat format and should be adhered to. In section 4.1 you will get detailed informa-tion regarding the catalog template fields and their respective BMEcat fields.

Every type of formatting (e.g. bold script `` in a long description of a product) is not permissible in the BME-cat format, as the data, if needed, could be transformed into other formats, thereby requir-ing additional networked applications to be available.

Further information on BMEcat can be found on the internet at <http://www.bmecat.org> and can be obtained through the jCatalog Hotline.

3.2 CSV format

You will be provided with two Excel templates for the recording of the articles. These comprise a template for the product data and a template for the price data (see attachment: Produktdatenvorlage.xls and Preisdatenvorlage.xls). Both files in the attachment are only for viewing and understanding the structure of the data that are to be provided.

For data exchange in CSV format, please consult jCatalog Software AG beforehand.

In the CSV files, the column names in the first row of the Excel template should be used and entered as header lines. It is thereby necessary to adhere to the exact English designation as well as to the preset sequence. The column separator is the vertical line character (|).

To maintain the vertical line character as the column separator when saving the Excel template, the following procedure should be followed:

- Configuring the delimiter is done in the Windows system settings. I.e. open the dialog via Start --> Settings --> Control Panel.
- Here, double-click on "Regional Settings" and select the "Numbers" tab. Enter the vertical line character under "List Separator" and confirm by clicking OK.
- To get the correct character, save the file in CSV format and restart Excel.

It is important to ensure that the column separator is not a part of the field content, e.g. in the short or long descriptions.

Furthermore, line breaks or tabulators (e.g. in fields such as DescShort or DescLong) as well as for-mating (e.g. marking in bold via HTML tags) should not be used.

As all the fields and their contents are subject to technical verification and, to some extent, default values are entered in fields that are not filled with a value (example: MinOrder = minimum order quantity: no content: default value = "1"), the raw supplier data must closely follow the catalog template structure. All specified fields are to be provided, even if individual fields are not filled with content.

Both template files have absolutely indispensable fields ("Must field"), recommended fields ("Should fields") and additional 'optional' fields ("Can fields"). The importance of the fields is depicted as follows:

- Must fields
- Should fields
- Can fields

The essential fields (Must fields) refer to catalog or product data, which are necessary for catalog production from a technical point of view and must, to some extent, correspond to particular values (e.g. order unit - UOM). The required fields (Should fields) refer to fields which are optional, but which must be available in the context of a uniform procurement catalog (example: delivery time – LeadTime). The additional fields (Can fields) are of little importance, and the filling of these fields is requested but not absolutely indispensable for the catalog creation process.

Should you have any queries regarding the fields mentioned below, please do not hesitate to contact us.

3.2.1. Product catalog - product template

General product data are entered in the product catalog. This includes, for example, information such as:

- the article number
- the brief description
- the lot size
- the minimum order quantity

The appropriate entry in the Must fields is of particular importance. These fields, as well as the important additional product attributes (Should fields) are described in the following sections. The Must fields are based on the minimum technical and content requirements of TÜV Service GmbH.

3.2.2. Price catalog - price template

The price catalog gives the price information of the articles from the product catalog. Besides the net price, this includes the relevant currency as well as the price - minimum order quantity (important for graduated prices).

To assign these data to the product catalog, the article number must also be entered in this template.

3.2.3. Accessories and variants – accessory template

In addition to the product and price data, relationships between products can also be submitted. Currently there is a distinction between the relation types "accessories" and "variants".

It is consequently possible to meaningfully link the individual products, so that they can be found more easily later. In the detail page of the search engine, the links are then evaluated and the appropriate accessory or variant article is directly displayed.

To assign these data to the product catalog, the article number must also be entered in this template. Besides the article number of the outgoing product, the article number of the dependent product as well as the type of relationship are to be entered.

4 Catalog data formats and data models

4.1 BMEcat

4.1.1 4.1.1. Illustration of the product data

The following table shows the fields from the product catalog that are displayed in a BMEcat catalog.

No.	Field name	BMEcat-Element
1	PartNum	SUPPLIER_AID
2	UOM	ORDER_UNIT
3	ShortDesc	DESCRIPTION_SHORT
4	Locale	in the header: LANGUAGE
5	SupplierID	in the header: SUPPLIER_ID type=supplier_specific (*) CATALOG_ID (*)
6	MfrName	MANUFACTURER_NAME
7	MfrPartNum	MANUFACTURER_AID
8	LeadTime	DELIVERY_TIME
9	LongDesc	DESCRIPTION_LONG REFERENCE_FEATURE_SYSTEM_NAME : ECLASS-4.1
10	eCI@ss	REFERENCE_FEATURE_GROUP_ID
11	MinOrder	QUANTITY_MIN
12	LotSize	QUANTITY_INTERVAL
13	ContentUnit	CONTENT_UNIT
14	PackageAmount	NO_CU_PER_OU
15	Synonyms	KEYWORD
16	EAN	EAN
17	DunsNo	in the header: SUPPLIER_ID type=supplier_duns (*)
18	SpecialTreatmentClass	SPECIAL_TREATMENT_CLASS
19	CoreArticle	ARTICLE_STATUS type=core_article
20	PictureName	MIME_SOURCE MIME_PURPOSE=normal
21	PicMIMEType	MIME_TYPE
22	PicDescription	MIME_DESCR
23	ThumbnailName	MIME_SOURCE MIME_PURPOSE=thumbnail
24	ThumbnailMIMEType	MIME_TYPE
25	DocumentPurpose	MIME_PURPOSE
26	DocumentDescription	MIME_DESCR
27	DocumentMIMEType	MIME_TYPE
28	DocumentLocation	MIME_SOURCE

Table 1: Illustration of product catalog in BMEcat Data type, field length, Must/Can/Should, see under 4.2.1

(*) The SupplierID can be obtained from jCatalog or TÜV Service (TÜV creditor number).

The DunsNo is identical to the SupplierID.

Please enter only the SupplierID in the BMEcat-files. The DunsNo is not

applicable here.

The CatalogID consists of the SupplierID followed by an underscore and an attached catalog serial number (as a rule 1 e.g. 123456_1). Only if several different catalogs need to be made available is it necessary to number them serially.

4.1.2 Illustration of the price data

The following table shows the fields from the price catalog that will be displayed in a BMEcat file.

No.	Field name	BMEcat
1	PartNum	SUPPLIER_AID
2	ContractPrice	PRICE_AMOUNT Note: ARTICLE_PRICE TYPE=net_list
3	CurrencyCode	PRICE_CURRENCY
4	QtyMin	LOWER_BOUND
5	PriceUnit	PRICE_QUANTITY

Table 2: Illustration of price catalog in BMEcat

4.1.3 Illustration of the accessory data

The following table presents the fields from the product catalog that depict the relationship between products in a BMEcat-file:

No.	Field name	BMEcat
1	PartNum	SUPPLIER_AID
2	RelationType	ARTICLE_REFERENCE Note: ARTICLE_REFERENCE TYPE=accessories or ARTICLE_REFERENCE TYPE=variant
3	RelatedPartNum	ART_ID_TO

Table 3: Illustration of accessory and variant articles in BMEcat

4.2 CSV , Excel templates

4.2.1 Product template (product catalog)

General product data are entered in the product catalog. This includes, for example, information such as article number, short description, long description, lot size and minimum order quantity.

No.	Field name	Meaning	Data type	Field length	Must/Can/Shou Id
1	PartNum	Supplier article number	C	35	Must
2	UOM	Order unit	C	3	Must
3	ShortDesc	Short description	C	200	Must
4	Locale	Language	C	2	Must
5	SupplierID (*)	Supplier identification	C	10	Must
6	MfrName	Manufacturer	C	50	Should
7	MfrPartNum	Manufacturer article number	C	35	Should
8	LeadTime	Delivery time	N	13	Should
9	LongDesc	Long description	C	2000	Must
10	eClass	eCl@ss-Code, version 6.0.1	C	10	Must
11	MinOrder	Minimum order quantity	N	13 (10,2)	Should
12	LotSize	Lot size	N	13 (10.2)	Can
13	Synonyms	Synonyms	C	500	Should
14	EAN	EAN	N	50	Can
15	DunsNo (*)	DUNS No. of the supplier	N	6	Must
16	ContentUnit	Content unit	C	3	Can
17	PackageAmount	Package amount	N	13 (10.2)	Can
18	SpecialTreatmentClass	Special treatment class	C	50	Can
19	CoreArticle	Identification of core assortment	C	1	Can
20	PictureName	File name of the detail picture	C	500	Should*
21	PictureMIMEType	MIME type of picture (GIF or JPEG)	C	100	Should*
22	PictureDescription	Picture description	C	100	Should*
23	ThumbnailName	File name of the thumbnail	C	500	Should*
24	ThumbnailMIMEType	MIME type of thumbnail (GIF or JPEG)	C	100	Should*
25	DocumentPurpose	Attachment - purpose of document	C	20	Can
26	DocumentDescription	Document description	C	100	Can
27	DocumentMIMEType	Type of document	C	100	Can
28	DocumentLocation	AttachmentURL	C	500	Can
29	GWG-Kennzeichen	GWG-Kennzeichen	C	3	Kann
30	Kontierung	Kontierung	N	10	Kann
31	Ecologically	Umweltfreundliches Produkt	C	1	Should
32	Region1	Region, in der das Produkt verfügbar ist	C	3	Can
33	Region2	Region, in der das Produkt verfügbar ist	C	3	Can
34	Region3	Region, in der das Produkt verfügbar ist	C	3	Can

No.	Field name	Meaning	Data type	Field length	Must/Can/Shou Id
35	Region4	Region, in der das Produkt verfügbar ist	C	3	Can
36	Region5	Region, in der das Produkt verfügbar ist	C	3	Can

Legend: Field type: "C" = Character, "N" = Numerical

(*) see 4.1.1. * this is a mandatory entry if CoreArticle = Y Table 5: Product catalog

The specified fields have the following meaning:

1) PartNum: Supplier article number

Field description: Article number of the supplier. A unique article number has to be entered. *Special feature:* The use of blank spaces is not permitted. The field PartNum as a unique identifier must correspond exactly **in both templates (product and price catalog)**. Within a catalog, the article number has to be unique, i.e. the article number cannot be used more than once.

2) UOM: Order unit

Field description: Product order unit (see appendix: units of measurement), The order unit applies to several entries in the catalog. For example, the contract price, the lot size and the content unit are directly linked to this field. *Special feature:* The use of country-specific UOMs (e.g. FOT = foot or INH = inch) should be done in prior consultation with TÜV Service GmbH / jCatalog.

3) ShortDesc: Short description

Field description: This field is for the short product description. The short description has to begin with the product name or an appropriate descriptive name for the product and should be supplemented with the following attributes. The short description should clearly describe the product. Please pay attention to the use of lower/upper case. The field content is also transferred to an ERP backend system and used for ordering. *Special feature:* The use of enclosing quotation marks (double or single), line breaks or tabulators is not permitted. The short description is a basic entry.

4) Locale: Language

Field description: The language, in which the article is described (short description, long description), is defined in this field. The code (the corresponding ISO code must be used) should define the "linguistic" region, in which the product is offered. E.g. "de" for Germany, Austria, Switzerland. *Special feature:* The use of a uniform locale in a catalog is permitted. For the TEOS project, only "de" is permitted.

5) SupplierID: Supplier code

Field description: This field contains the unique supplier code. The supplier identification code will be allocated to you once by TÜV Service GmbH. *Special feature:* Only the use of the uniform supplier code in a catalog is permitted.

6) MfrName: Manufacturer name

Field description: Name of the manufacturer. If the supplier is also the manufacturer, then its name should be reentered here. Likewise, the entry of a manufacturer name is required for specified manufacturer article numbers. *Special feature:* To achieve a uniform spelling of the manufacturer name, the use of abbreviations is not recommended. During order generation, this field is also transferred into the connected ERP backend

system and the material base by buyers. The entry of the manufacturer name is therefore recommended.

7) MfrPartNum: Manufacturer article number

Field description: Article number of the manufacturer. If the supplier is also the manufacturer, it is recommended that the supplier article number is reentered. Likewise, when entering the manufacturer name, one is also asked to enter the manufacturer article number. *Special feature:* The use of blank spaces is not permitted. The field will also be transferred to the connected ERP backend system during order generation. The entry of the manufacturer article number is therefore strongly recommended.

8) LeadTime: Delivery time

Field description: Defines the time in working days that the supplier requires for delivery. If this cannot be precisely defined, an average value should be entered. *Special feature:* Only natural, integral numbers are permitted. Values greater than 100 are not meaningful.

9) LongDesc: Long description

Field description: Detailed long description of the product. Attention should be given to the use of lower/upper case. The field content can be chosen freely, and should contain additional details about a product. *Special feature:* The use of enclosing quotation marks (double or single), line breaks or tabulators is not permitted.

10) eClass: eCl@ss code

Field description: Entry of the eCl@ss code (version 6.0.1) of a product. eCl@ss is designated by a 4-step hierarchical material classification key. *Special feature:* An 8-digit numerical code should always be entered. The use of a delimiter (e.g. hyphen "-") for the identification of the different hierarchy levels is not permitted. For further information, see <http://www.eclass.de>

11) MinOrder: Minimum order quantity

Field description: The field minimum order quantity defines the minimum number of units of a product that must be ordered, corresponding to its order unit (UOM). *Special feature:* Max. 2 decimal places, the decimal separator is the dot, permissible value range greater than "0", in unfilled fields or where the entry is "0", the default value "1" will be entered within the scope of the catalog production. The minimum order quantity is always the same or a multiple of the lot size, but never less than the lot size.

12) LotSize: Lot size

Field description: If the order quantity can only be a multiple of the basic quantity, a lot size must be defined that identifies the multiple. *Special feature:* Max. 2 decimal places, the decimal separator is the dot, permissible value range greater than "0", in unfilled fields or where the entry is "0", the default value "1" will be entered within the scope of the catalog production.

13) ContentUnit: Content unit

Field description: Basic unit of the article within an order unit (UOM). Example: For the order units "ST" (piece), "M" (meter),... an entry here is not necessary, as these are already basic units. On the other hand, the content unit for the order unit "PAK" (package), e.g. "ST" (piece) must be entered.

14) PackageAmount: Package amount

Field description: Number of "content units" (ContentUnit) per order unit (UOM) of the article. An entry is necessary only if the order unit (UOM) includes several "content units" (piece, liter,..). *Special feature:* Max. 2 decimal places. If nothing is specified in this field the default value "1" is used.

15) Synonyms: Synonyms

Field description: The field content will be taken into consideration by the catalog user during product search. You can define synonyms for your product. For example, a computer can be: "PC / Personal Computer /...".

Special feature: The separation of each synonym occurs with blank space/blank space (" / ") (e.g. Computer / PC / Notebook).

16) EAN: EAN

Field description: Entry of the 13-digit European Article Number. Further information on this can be found on the internet at <http://www.ean.de> or <http://www.ean-int.org>.

17) DunsNo: DUNS No. of the supplier

Field description: This field is necessary for identifying the supplier in the SAP system. The field content is identical to the SupplierID (Creditor No. of the supplier for TÜV). The original DUNS No. is not used. *Special feature:* At present, this attribute is maximally a 6-digit sequence number.

18) SpecialTreatmentClass: Special treatment class

Field description: Additional article classification for hazardous goods or substances.

19) CoreArticle: Identification core assortment

Field description: If the product belongs to a core assortment, then a "Y" should be entered, otherwise the field can be left empty. Products that belong to a core assortment can be specifically searched for in the catalog search engine. *Special feature:* Only the value "Y" is permissible.

20) PictureName: File name of the detail picture.

Field description: The file name of the picture (including the path statement "picture/") is entered in this field. No additional "AttachmentPurpose" is necessary, as the content is always a picture. For detailed information, please see section 5.1. *Special feature:* Permitted image formats are GIF and JPEG. Blank spaces or special characters (such as / , % & @ § () +) are not permitted in the file name. Likewise, incomplete file names are not permissible. To ensure a meaningful depiction of the pictures in the application, it is necessary that the pictures do not fall below or exceed the following sizes: width: 200-500 pixels, height: 200-500 pixels.

21) PictureDescription: Picture description

Field description: This field contains a brief description of the detail picture. This text is visible as information to the user in the application.

22) PictureMIMEType: MIME type of picture

Field description: The MIME type of the detail picture is entered in this field. Only the following entries are permissible: "image/jpeg" or "image/gif".

23) ThumbnailName: File name of the thumbnail

Field description: The file name of the thumbnail (including the path statement "thumbnail/") is entered in this field. No additional "AttachmentPurpose" is necessary, as the content is always a thumbnail. For the user of the catalog search engine, the thumbnails are depicted on the pages on which several products can be seen simultaneously (e.g. hit list). In particular, the provision of thumbnails constitute a high-quality electronic catalog. For detailed information, please see section 4.2.3. *Special feature:* Permitted image formats are GIF and JPEG. Blank spaces or special characters (such as / , % & @ § () +) are not permitted in the file name. Likewise, incomplete file names are not permissible. To ensure a meaningful depiction of the pictures in the application, it is necessary that the thumbnails do not fall below or exceed the following sizes: width: 35-35 pixels, height: 200-500 pixels.

24) ThumbnailMIMETYPE: MIME type of thumbnail (GIF or JPEG)

Field description: The MIME type of the thumbnail is entered in this field. Only the following entries are permissible: "image/jpeg" or "image/gif".

25) DocumentPurpose: Purpose of the attached document

Field description: Intended purpose of the content of the attachment. This field refers to the field "DocumentLocation". *Special feature:* Permitted purposes are:

- "normal": normal picture will be displayed in the detailed view of a product
- "detail": detailed illustration, will be displayed in the enlarged view of a product
- "thumbnail": thumbnail view will only be displayed in the result list
- "others": another purpose, will be depicted only as a reference in the detail view of a product

26) DocumentDescription: Document description

Field description: This field contains a brief description of the detail picture. This text is visible as information to the user in the application.

27) DocumentMIMETYPE: MIME type of document

Field description: The MIME type of the additional document is entered in this field. For example, the following entries are permissible:

- application/pdf: Adobe Acrobat file
- application/msexcel: Microsoft Excel table
- application/mspowerpoint: Microsoft PowerPoint file
- application/msword: Microsoft Word file
- image/gif: GIF image
- image/jpeg: JPEG image
- text/html: HTML file
- text/plain: ASCII text
- video/mpeg: MPEG video file

28) DocumentLocation: AttachmentURL

Field description: The file name of the additional document is entered in this field, which has been defined via the field "DocumentPurpose". The path statement "document/" must precede the file name. For detailed information, please see section 4.2.3. *Special feature:* Permissible file formats are: JPG, GIF, PDF, AVI, MPG, TXT, DOC, XLS, PPT, PPS, HTM and HTML. Blank spaces or special characters (such as / , % & @ § () +) are not permitted in the file name. Likewise, incomplete file names are not permissible.

29) GWG-identification: GWG-identification *Field description:* In this field, the specific TÜV Rheinland Service GmbH accounting detail is stored. A 6-digit accounting number is expected here.

30) Accounting: Accounting *Field description:* In this field, the specific TÜV Rheinland Service GmbH accounting detail is stored. A 6-digit accounting number is expected here.

31) Ecologically: This concerns products that are marked, for example, with the identification "Blue Angel, Euroflower, Nordic Swan or Austrian UZ ind. So in this case, the value "Y" is to be entered in the Excel (CSV) file, otherwise no entry is made in this field.. In BMEcat werden die Daten in USER_DEFINED_EXTENSIONS hinterlegt

(<USER_DEFINED_EXTENSIONS> <UDX.TUEV.NONPOLLUTING>Y</UDX.TUEV.NONPOLLUTING>

</USER_DEFINED_EXTENSIONS>)

Especially: Only a "Y" is allowed as valid value.

32-35) Region1-5: Region *Field description:* This field indicates in which region the product is available.

4.2.2 Price template (price catalog)

The price data belonging to the product catalog are entered in the price catalog. The entry of graduated prices is possible. The statements in the price catalog include, for example, information such as net price, currency specification and graduated quantity.

No	Field name	Meaning	Data type	Field length	Must/Can/Should
1	PartNum	Supplier article number	C	22	Must
2	ContractPrice	Contract price	N	13 (12,2)	Must
3	CurrencyCode	Currency	C	3	Must
4	QtyMin	Price - minimum order quantity	N	10	Should
5	PriceUnit	Price unit	N	9	Can

Legende: Feldtyp: "C" = Character, "N" = Numerisch

Table 6: Price catalog

The specified fields have the following meaning:

1) PartNum: Supplier article number

Field description: Article number of the supplier. A unique article number should be entered, which corresponds to the article number in the product catalog. Special feature: The use of blank spaces is not permitted.

2) ContractPrice: Contract price

Field description: Net contract price per order unit (e.g. "EA"). Special feature: Max. 2 decimal places, a dot is to be used as a decimal separator, thousand separators are not allowed. Quoted prices should not be expressed in values below "0.01". The price quotation should be entered only as a value, not as a formula. In graduated prices it is important to ensure that increasing graduated quantities correspond to decreasing graduated prices.

3) CurrencyCode: Currency

Field description: Unit of currency of the specified "contract price".
Special feature: For the TEOS project, only "EUR" for Euro is allowed.

4) QtyMin: Price - minimum order quantity

Field description: The lower quantity limit for graduated prices to be ordered for maintaining the defined "contract price" and conditions. The upper graduated price limit is determined by the QtyMin value of the next price. If there are no more graduations, the price applies to all quantities which are higher than the lower graduated price limit. Special feature: Only natural and integral numbers. If the field is not filled or a "0" is entered, the default value "1" is set within the scope of catalog production.

5) PriceUnit: Price unit

Field description: This field contains a multiple or a fraction of the order unit (UOM) which indicates the quantity to which all the specified prices refer (e.g. price per 1000 m for cable). Special feature: It is only possible to order multiples of the order unit; fractions of the order unit are not permissible.

4.2.3. Accessories template / Variants template

The relationships between the products of a product catalog are entered in the accessories and variants templates. Data on the outgoing product, target product as well as type of relationship are entered here.

No	Field name	Meaning	Data type	Field length	Must/Can/Should
1	PartNum	Supplier article number	C	22	Must
2	RelationType	Relation type	C	20	Must
3	RelatedPartNum	Supplier article number of the dependent product	C	22	Must

Table 7: Accessories and variants templates

The specified fields have the following meaning:

1) PartNum: Supplier article number

Field description: Article number of the supplier. A unique article number, which corresponds to the article number in the product catalog, should be entered. *Special feature:* The use of blank spaces is not permitted.

2) RelationType: Type of relationship

Field description: Defines the type of relationship between specified products. *Special feature:* "accessories" or "variant" can be used as possible values.

3) RelatedPartNum: Supplier article number of the dependent product

Field description: Article number of the supplier. A unique article number should be entered, which corresponds to the article number in the product catalog. This product then refers to an accessory or a variant outgoing product (entered in the field "PartNum"). *Special feature:* The use of blank spaces is not permitted.

5 Use of documents

Further important product information can be made available through so-called attachments or documents. These attachments can be added to a product in the form of pictures, technical specifications and other document types. As a rule, pictures are used for a detailed view of the product data.

The catalog management module provides each supplier with his own directory on a file server for the storage of documents. Within a directory, further subdirectories can be maintained.

Example:

All documents are stored in a supplier-specific basic directory. In the basic directory, three folders can be created ("pictures", "thumbnails", "documents"), each of which contain two further directories ("group001", "group002"). The following folder hierarchy emerges:

```
[basic-directory pictures]
+--- picture
+--- thumbnail
+--- document
```

In Chapter 4.2.1. Product template under 20)PictureName and 23)ThumbnailName we have pointed to the exact syntax between the links and the name of the pictures.

5.1 Use of documents in BMEcat format

If you use the catalog format BMEcat, you can assign an arbitrary number of documents per article. However, an assignment of more than five documents can only be carried out in consultation and agreement with jCatalog.

Document information is entered in <MIME_INFO> or <MIME>.

Example:

```
<MIME_INFO>
  <MIME> <MIME_TYPE>image/jpeg</MIME_TYPE>
    <MIME_SOURCE>picture/produktbild.jpg</MIME_SOURCE>
    <MIME_DESCR>Produktabbildung</MIME_DESCR>
    <MIME_PURPOSE>normal</MIME_PURPOSE>
  </MIME>
  <MIME> <MIME_TYPE>image/gif</MIME_TYPE>
    <MIME_SOURCE>thumbnail/produktbild.gif</MIME_SOURCE>
    <MIME_DESCR>Produktabbildung</MIME_DESCR>
    <MIME_PURPOSE>thumbnail</MIME_PURPOSE>
  </MIME>
```

```
<MIME> <MIME_TYPE>text/html</MIME_TYPE>
  <MIME_SOURCE>documents/produkt-doku.html</MIME_SOURCE>
  <MIME_DESCR> Technische Spezifikation</MIME_DESCR>
  <MIME_PURPOSE>others</MIME_PURPOSE>
</MIME> <MIME_INFO>
```

5.2 Use of documents in CSV format

If the supplier uses the catalog format CSV (product and price templates as described), he can attach up to three documents:

- an image for the product detail view
- an image for a thumbnail view in the hit list
- any further document

In the CSV file, the file name of the document as well as its respective preceding path name are entered. Referring to the earlier example, the following data must be submitted:

Example:

No.	Field name	Example
20	PictureName	<i>picture/gruppe001/produktbild.jpg</i>
21	PictureDescription	<i>product illustration</i>
22	PictureMIMEType	<i>image/jpg</i>
23	ThumbnailName	<i>thumbnailgruppe002/produktbild.gif</i>
24	ThumbnailMIMEType	<i>image/gif</i>
25	DocumentPurpose	<i>others</i>
26	DocumentDescription	<i>technical specification</i>
27	DocumentMIMEType	<i>text/html</i>
28	DocumentLocation	<i>documents/gruppe001/produkt-doku.html</i>

Table 8: Example of document details in a CSV file

ATTENTION

If documents are referenced in a directory structure, then it is important that the sub-directories are separated by means of slashes ("/"). The "backslash" sign ("\"), commonly used in the Microsoft Windows platform, is not permissible and leads to errors in certain internet browsers.

Example:

picture\produktbild.jpg is not permissible
picture/produktbild.jpg is permissible

5.3 Restrictions

5.3.1 Entry of a URL

In specifications or other documents, there is a possibility of referencing an HTML file (e.g. MIME type: text/html). The file name may not consist of an internet URL (for example, a referral to a supplier's internet page: <http://www.supplier.de/manual.pdf>).

All order relevant information (attachments) must be supplied as a file and may not be given in an internet URL. Many users of TEOS do not have direct internet access, but access the catalog via an intranet. These users are possibly denied access to an external internet address, which means that "URL documents" cannot be displayed.

5.3.2 Image resolution

The following resolutions of the image documents must be taken into consideration:

- Normal image (intended purpose = "normal"): width: 200-500 pixels height: 200-500 pixels
- Thumbnail image (intended purpose = "thumbnail"): width: 35 pixels height: 35 pixels.

5.4 Delivery of the document

The attachments of a supplier catalog must be made available to jCatalog via a data medium (CD-ROM) or via the internet (e-mail or FTP server):

Data media: The data medium must contain the documents specified in the raw catalog data, and must include the folder structure.

E-mail: The documents can be sent in a WinZip archive as an e-mail attachment to jCatalog. The WinZip archive must contain the documents specified in the catalog raw data and should not exceed a file size of 2 MB.

FTP server: The documents can be made available to jCatalog in a WinZip archive on an FTP server. The WinZip archive must contain the documents specified in the catalog raw data and must include the folder structure.

ATTENTION

In any case, please save the file in the WinZip archive according to the correct path statement (see instructions above). The file name of a WinZip archive may not contain umlauts!

6 Help for the supplier

This chapter offers assistance for the following queries:

How do I best present my products? How can I influence the customer to order only the quantity which I can supply?

6.1 Presentation of the products, full text search

Generally, all the fields from the product and price catalog serve to differentiate one product from the others and give the customer a better understanding of the specific advantages of the product. In particular, from a marketing perspective as well as for product search and product display, the following fields are elementary and have already been described in the previous sections. They are taken into consideration during full text search in the search engine. These fields should therefore contain meaningful and expressive information.

Field name	BMEcat element	Meaning
PartNum	SUPPLIER_AID	Supplier article number
ShortDesc	DESCRIPTION_SHORT	Short description
LongDesc	DESCRIPTION_LONG	Long description
MfrName	MANUFACTURER_NAME	Manufacturer
MfrPartNum	MANUFACTURER_AID	Manufacturer article number
Synonyms	KEYWORD	Synonyms
EAN	EAN	European Article Number

Table 9: Fields that must be taken into consideration in a full text search

6.2 Order quantity and graduated prices

6.2.1 Composition of the order quantity

To order a product, a buyer must enter an order quantity in the catalog search engine. This quantity (as also the price) refers to the order unit specified by the supplier. In case the order unit is, for example, "PK" (package), and the buyer enters the quantity "10", it refers to an order of 10 packages. The specifications of price, minimum order quantity and lot size, for ex-ample, refer to this order unit. In the case of a package, it is important for the buyer to know the number of pieces contained in the package. For such order units, the supplier should therefore specify the corresponding content unit (ContentUnit) and the package amount (PackageAmount). The package amount depicts the number of content units, the content unit represents the basic unit of quantity (e.g. piece, liter, meter).

6.2.2 Minimum order quantity and lot sizes

If an article is only sold in a minimum quantity, this order quantity must be specified in the field minimum order quantity (MinOrder) in the product catalog. The minimum quantity directly refers to the order unit (in the above-mentioned example, package) for this article.

If, due to packaging constraints, the supplier can then only offer the article in lots, the field lot size (LotSize) must be filled with the corresponding number of order units. If, in the above example, the lot size is set to "10", the packages can only be ordered in lots of 10, 20, 30, etc.

6.2.3 Graduated prices

To furnish a product with graduated prices, the field "price minimum order quantity" (QtyMin) in the price file should be filled. In this field, the quantity will be entered from which the entered contract price on the same row is valid for the "order unit" (UOM) specified in the product catalog. Therefore, to use multiple graduated quantities with corresponding prices, a product must be entered several times in the price catalog. On the other hand, the article will appear only once in the product catalog.

7 Updates of catalogs

Catalog data can be updated by a complete overwriting of the previous data (Full Replacement). This procedure applies to both catalog formats.

When you send via mail catalog data to jCatalog, it is responsible for seeing that all information to suppliername, validity of prices and delivery (Fullreplacement/Update) is given in the subject.

Example: jCatalog, Price valid up to 31.12.2014, Fullreplacement

ATTENTION

When using BMEcat, it is desirable to use only the transaction <T_NEW_CATALOG> in BMEcat cata-logs. This leads to a complete replacement of the existing catalog in the catalog content system.

8 Data transfer and file naming

The catalog data will be sent directly by you (supplier) to jCatalog. For this, use the following e-mail:

tuv-teos@jcatalog.com

Alternative possibilities of data transfer can be arranged with jCatalog.

We point out that when the catalog data is sent for the first time as well as if there are changes concerning the address data, phone number please contact immediately jCatalog or sent the changed data via mail. You find the exact data which are affected on page 5.

The catalog files must fulfill certain requirements of naming conventions, which are depicted below:

The following naming conventions should be considered when using CSV files:

- **Product catalog:**
 <Date of creation>_<supplier code>_CAT_TEOS.<file extension> with: <Date of creation>: YYYYKW with YYYY = year specification KW = calendar week
 <Supplier code>: The code we have given to you <File extension>: csv = CSV file

Example:

200310_The code we have given to you_CAT_TEOS.csv Date of creation = KW 10 in the year 2003 Supplier code: The code we have given to you File end = csv = CSV file

- **Price catalog:**
 <Date of creation>_<supplier code>_PRC_TEOS.<file extension> with: <Date of creation>: YYYYKW with YYYY = year specification KW = calendar week
 <Supplier code>: The code we have given to you <File extension>: csv = CSV file

Example:

200310_The code we have given to you_PRC_TEOS.csv Date of creation = KW 10 in the year 2003 Supplier code: The code we have given to you File end = csv = CSV file

The following naming conventions should be observed when using BMEcat files:

- **BMEcat:**
 <Date of creation>_<supplier code>_BMECAT_TEOS.xml <Date of creation>: YYYYKW with YYYY = year specification KW = calendar week <Supplier code>: The code we have given to you

Example:

200312_The code we have given to you_BMECAT_TEOS.xml Date of creation = KW 10 in the year 2003 Supplier code: The code we have given to you

9 Appendix: Units of measurement

There are no restrictions in the used units of measurement. The use of country-specific UOMs (e.g. FOT = foot or INH = inch) should be done in prior consultation with TÜV Service GmbH / jCatalog.

The following units of measurement are used by the TÜV Service in standard operation:

Units of measurement	
Code	Description
BD	bundle
BG	sheet
BK	block
BL	sheet
CM	centimeter
DS	can
EI	bucket
FL	bottle
G	gram
H	hour
KAN	canister
KAR	carton
KG	kilogram
L	liter
M	meter
M2	square meter
M3	cubic meter
MM	millimeter
PAA	pair
PAL	palette
PK	package
RL	roll
SA	set
ST	piece
VE	packaging unit

Table 10: Units of measurement

