Specification BMEcat®[1]

Version 1.2

Authors	**Volker Schmitz,**	**University of Essen BLI**
	Oliver Kelkar	**Fraunhofer IAO**
	Thorsten Pastoors	**Fraunhofer IAO**
	Thomas Renner,	**Fraunhofer IAO (up to V1.01)**
	Claus Hümpel,	**Fraunhofer IAO (up to V1.01)**

Contacts:

Thomas Renner
Fraunhofer IAO
Nobelstraße 12
D-70569 Stuttgart
Germany
www.iao.fhg.de

Volker Schmitz
University of Essen BLI
Universitätsstraße 9
D-45117 Essen
Germany
www.bli.uni-essen.de

e-mail: authors@bmecat.org

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Firms and individuals involved in the development of BMEcat

This version of this standard was prepared by a joint working party, the "eBusiness Standardization Committee", in cooperation with the BME (Bundesverband Materialwirtschaft, Einkauf and Logistik e.V. = Federation of Materials Management, Purchasing and Logistics., http://www.bme.de/).

The following persons contributed to the project results through their collaboration on this body:

Mr. Bauer	BMW	Mr. Krause	Siemens
Ms. Bischoff	GZS	Mr. Mielke	Philips
Mr. Brücher	Deutsche Telekom	Mr. Milz	Visa International
Mr. Conow	Deutsche Bahn	Mr. Müller	Sachs Automotive AG
Mr. Dixon	Visa International, no longer with company	Mr. Pastoors	Fraunhofer IAO
		Ms. Rau	Alcatel
Mr. Eibl	Bayer	Mr. Reichenberger	Siemens
Mr. Eifert	Ruhrgas AG	Mr. Renner	Fraunhofer IAO
Ms. Farzeneh	BMW	Mr. Reß	Sachs Automotive AG
Mr. Finkenstein	DaimlerChrysler	Mr. Ripper	Pirelli
Mr. Fischer	E.ON Kraftwerke GmbH	Mr. Schäfer	DLR
Mr. Göpffarth	Deutsche Bahn	Mr. Schermann	Mannesmann AG (meanwhile Karstadt Quelle New Media)
Mr. Gross	E.ON Kraftwerke GmbH		
Mr. Haesser	Deutsche Telekom		
Mr. Hausmann	Audi	Mr. Schnieders	American Express
Mr. Hermann	Siemens	Mr. Schmitz	University of Essen BLI
Mr. Höll	Alcatel	Mr. Stute	Infraserv Höchst
Mr. Holtschneider	Mannesmann Mobilfunk	Mr. Szigat	E.ON Kraftwerke GmbH
Mr. Hümpel	Fraunhofer IAO (meanwhile IBM Global Services)	Mr. Ulrich	Fraunhofer IAO (meanwhile e-pro solutions)
		Mr. von Heyl	BME, no longer with company
Mr. Jördens	Bayer		
Mr. Kelkar	Fraunhofer IAO	Mr. Wink	Visa International (meanwhile PricewaterhouseCoopers)
Mr. Konhäuser	Flughafen Frankfurt (meanwhile CaContent)		
Mr. Kraft	Siemens	Mr. Zlabinger	University of Linz

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1. Introduction

1.1. Overview

The BMEcat- format was developed with the aim of standardizing, and consequently simplifying, the interchange of product data catalogs between suppliers and buying organizations. In the underlying model, a supplier compiles a catalog which conforms to the BMEcat standard in electronic form. This catalog is referred to in the following as the catalog document. The catalog document also allows multimedia product data, such as photographs, graphics, technical documentation, video data, etc. to be integrated.

A supplier typically transmits a catalog document to a buying organization, which processes the document contents according to its own requirements and integrates them into an existing shop system, for instance (buyer shop systems are distributed by Ariba, Commerce One, Intershop, GEAC, Harbinger, Healy Hudson, Heiler Software, Oracle, Procure Network, SAP, etc). This process is known as product data interchange. The BMEcat formats allows suppliers wishing to exchange product data not only to transfer the complete data set but also, for example, to update price information at the same time.

Standardized catalog documents in accordance with BMEcat are not simply suitable for transmission to a buying organization, however; on the contrary, they are also ideal for setting up or updating own online shops to support sales and marketing activities.

The use of BMEcat moreover represents a significant step on the road to standardizing business-to-business e-commerce. Firms that are capable of generating documents on the basis of BMEcat thus comply with one of the most important prerequisites for other areas of e-commerce, such as automatic order processing or electronic exchange of invoice data.

1.2. Use of XML

Catalog documents are coded in XML, the "eXtensible Markup Language". XML is the de-facto industrial standard. XML allows structures and data to be coded simultaneously in a single catalog document, in contrast with traditional methods such as comma-separated lists, for instance. In-depth literature on the subject of XML can be found at the following address www.w3.org.

The DTDs (Document Type Definitions) belonging to the BMEcat standard are published in a separate, accompanying document.

1.3. Backward compatibility with BMEcat Version 1.01

BMEcat Standard Version 1.2 is backwardly-compatible with BMEcat Version 1.01 in the sense that BMEcat Version 1.01-compliant catalog documents also comply with BMEcat Version 1.2. This means that existing BMEcat 1.01 product catalogs can also be processed by target systems which support the BMEcat Version 1.2.

1.4. Supplementary activities and standards

BMEcat describes the exchange of multimedia product catalogs. In addition to facilitating product catalog interchange, the aim is also to standardize the classification of products in product groups for specific types of application or – over and above this – to standardize the definition of product features within individual product groups. The eBusiness Standardization Committee does not, however, propose classifications of its own. Rather the BMEcat standard is so conceived that almost all currently common classification systems can be used with the BMEcat. In addition to the exchange of product data, standardization is aimed for in the area of individual business transactions (ordering, order confirmation, invoicing, etc.). In this area work is currently been undertaken which will lead either to a recommendation on the use of existing processes or to a

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special standard. Here particular emphasis is placed on the compatibility with BMEcat 1.2 . This work is currently in progress under the working title "openTRANS".

1.5. Implementation support

Fraunhofer IAO, the University of Essen BLI and various partners of the eBusiness Standardization Committee can provide consulting support for implementing the BMEcat-Standards.

Software tools are available for generating BMEcat-compliant catalogs from existing databases (see http://www.bmecat.org).

All inquiries in this respect or concerning the specification should be addressed directly to the authors of BMEcat, e-mail**:** authors@bmecat.org**.**

Additional information can also be found on the Web site: http://www.bmecat.org/.

1.6. A word of thanks

Since the publication of the BMEcat Version 1.01 the authors have received a wealth of suggested amendments and improvements. These were discussed in numerous meetings and workshops. Errors have been eliminated and the most important alterations, providing they did not affect the backward compatibility, included in the Version 1.2.

The authors would particularly like to thank the following individuals who, with their numerous suggestions, contributed to improving the quality of this version (the order is dictated solely by the alphabetic listing of the company names):

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Mr. Andreas Bühler	Heiler Software AG
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Mr. Jörg Leukel	University of Essen BLI

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2. General

2.1. Terminology

A **product catalog** is the sum of all the necessary data which is transferred by the catalog-generating company to a firm receiving the catalog. This data is not yet available in a closely specified format.

A **catalog document** is the XML file in which the product catalog is stored in the BMEcat format and transferred to the catalog recipient.

A **catalog group** is a data area which defines a group to which similar articles can be assigned. A catalog group is represented in the BMEcat format by the element **CATALOG_STRUCTURE**.

A **catalog system** is a hierarchical tree of interconnected catalog groups. It is represented in the BMEcat format by the element **CATALOG_GROUP_SYSTEM**.

2.2. Structure of the specification/documentation

The documentation of the BMEcat Standards Version 1.2 is made up of various documents. This document is the detailed specification of the standard. It is complemented by the technical specifications of the BMEcat Standards in the form of DTDs as well as sample of BMEcat-compliant XML files. In addition to the BMEcat Version 1.2 final version a document has been published which is intended to ease the initial entry into the BMEcat Standard and which is limited to a description of the most important elements. A FAQ list, a list of remarks and suggestions on the current version as well as a list of the snags encountered is to be found on the website http://www.bmecat.org/. In the following text, the structure of the specification is explained.

In order to make navigation within the document easier, relevant key terms such as element names are cross-referenced, making it possible to jump directly to that part of the document in which this key term is explained in more detail. In order to make the cross-references easier to find they are highlighted in green.

Where more detailed information on various areas is available in the Internet, these are presented by the blue underlined hyperlinks which make it possible to jump directly to the relevant URL.

The BMEcat Specification 1.2 is divided into 6 sections. In the Sections 1 – 4 a brief introduction is given and basic concepts explained.

The main part of the Specification is Section 5, “Reference of Elements ". In this section, all the elements defined in the BMEcat are defined in the order in which they can appear in a catalog document. In addition, an **Alphabetical index of the BMEcat elements** appears at the end of the Specification. This is intended to make elements in alphabetical order easier to find. This index, like the **Contents** and the **Detailed list of alterations between Version 1.01 and Version 1.2 final draft** as well as the **Detailed list of alterations from Version 1.2 final draft to Version 1.2** have cross-references which take you directly to the elements.

Each element in Section 5 is described according to the same pattern. The description of the elements is divided into the following points:

- the element name
- a descriptive text explaining the function or significance of the element
- a diagram demonstrating the sub-elements of an element: The element described always appears on the left and is light blue; the sub-elements appear on the right, one under the other; where a sub-element is red (or dark), it must be specified; (Must-Field); where it is green (or light) it is optional (Can Field) (See also Section **"Must" and "Can" fields**), the symbols within the elements have the following meaning:

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- the ?- sign indicates that the element involved is a Can element;
- the +- sign indicates that the element may appear more than once in this location but must appear at least once;
- the *- sign indicates that the element may appear more than once in this location but it is also possible that this element does not appear at all;
- the <-> sign indicates that the element can have at least one sub-element. Where this sign does not appear, the element in question is a leaf element, i.e. a data type must be indicated.

- the table "General" gives a brief description of the following features of each element: the column "Used in" indicates the general elements in which the element described can be used; the column "Default value" indicates the value which will be assumed when the element has not been specified, (see also Section **"Must" and "Can" fields**); the column "data type" indicates – for those elements which have no sub-element – the types of data with which they can be filled; the column "Language-specific" indicates whether or not the field content can vary according to language; the column "Field length" indicates the maximum number of characters with which an element may be filled (See also **Coding in XML**)
- the table "Attributes" provides a list of the attributes used in the element and describes then in the following columns: the column "Designation" contains the term which describes the attribute in, if possible, one word; the column "Attribute name" indicates the system of notation which must be used in the catalog document; the column "Must/Can" indicates whether or not an attribute must be specified each time an element is used or whether the use is optional (see also Section **"Must" and "Can" fields**); the column "Explanation" specifies the use of the attribute; the columns "Default value", "Data type", "Language-specific" and "Field length" are used as indicated in the table "General"
- where a detailed specification is given of the values which an attribute may have, each attribute can be followed by a Table with a list of values; it should be noted whether this is a list of pre-defined values (i.e. these values are suggested but other values can also be used as determined by the description of the attribute), or whether a list of permitted values is given, which means that only values from this list, and no others, may be used; the column "Attribute value" indicates the values which may or must be entered in the attribute; the columns "Explanation" and "Designation" are used as indicated in the table "Attributes"
- in the table "Elements" the sub-elements (and - where these exist – their attributes) of the elements described are listed in order and described in the following columns: the column "Element name" consists of the system of notation which must be used in the catalog document; where this element itself has no sub-elements, the attributes of the sub-elements are listed in this column; the columns "Designation", "Must/Can", "Default value", "Data type", "Language-specific" and "Field length" are used as indicated in the table "Attributes" or the table "General".
- an Example closes the description of elements. In the examples, the BMEcat elements appear in black and the variable text or selectable attribute values appear in blue.

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In the texts described, the following symbols have been used to flag important passages:

Symbol	Explanation
	Caution: important indication of possible error source
	Note: explanatory note containing additional information
	Addition from Version 1.01 to Version 1.2

2.3. Version history

1.0: Published on 8 November 1999

1.01: Elimination of any inconsistencies and re-working of the examples, published on January 2, 2000

1.2 final draft: Error corrections, minor additions and general improvement of the documentation published on 2 February 2001

1.2 Implementation of the feedback on Version 1.2 final draft, published on 27 March 2001

Detailed list of alterations between Version 1.01 and Version 1.2 final draft

Type	Reference	Explanation
New data type	**PUNIT**	The data type **PUNIT** has been included in order to facilitate exact distinction between unit in general (**UNIT**) and packaging unit.
New attribute	type (in **BUYER_ID**)	As in the element **SUPPLIER_ID**, the element **BUYER_ID** now allows a number to be assigned to the type. See also **List of pre-defined values for the "type" attribute of the element BUYER_ID**.
New element	**PUBLIC_KEY**	The element **PUBLIC_KEY** has been added to the element **ADDRESS** in order to permit transfer of the public key to the persons addressed here.
Altered element	**T_UPDATE_PRODUCTS**	The element **ARTICLE (in the context T_UPDATE_PRODUCTS)** has now been added to the element **T_UPDATE_PRODUCTS** to allow newly-included articles to be assumed directly into a catalog group system.
Altered attribute	**prev_version** (in T_NEW_CATALOG), **prev_version** in T_UPDATE_PRODUCTS, **prev_version** in T_UPDATE_PRICES	The explanation of the attribute "prev_version" has been altered. See also **Example (Interaction of various transactions)**.
Altered element	**TERRITORY**	The description of the **TERRITORY** element has become more specific.
Altered element	**ARTICLE (in the context T_NEW_CATALOG)**, **ARTICLE (in the context T_UPDATE_PRODUCTS)**	In the ARTICLE element, the area **ARTICLE_FEATURES** can now be included more than once in order to permit one article to be described according to a number of classifications.
Altered element	**ARTICLE (in the context T_NEW_CATALOG)**, **ARTICLE (in the context T_UPDATE_PRODUCTS)**, **ARTICLE (in the context T_UPDATE_PRICES)**	In the ARTICLE element, the area **ARTICLE_PRICE_DETAILS** can now be included more than once in order to specify prices for varying periods of validity.
Altered element	**DESCRIPTION_LONG**	The meaning of the element has been defined more closely so that any HTML constructs can be used, e.g., word-wrap.
Altered element	**REMARKS**	The meaning of the element has been defined more closely so that any HTML constructs can be used, e.g., word-wrap.
New element	**MANUFACTURER_TYPE_DESCR**	The element **MANUFACTURER_TYPE_DESCR** has been included in the **ARTICLE_DETAILS** element.
Altered element	**DELIVERY_TIME**	The element **DELIVERY_TIME** no longer belongs to the **INTEGER** data type but to the **NUMBER** data type in order to permit the entry of fractions of a day as the delivery time.
Altered element	**SEGMENT**	The **SEGMENT** element no longer belongs to the **INTEGER** data type but to the **STRING** data type in order to permit not only numbers but also names as the segment designator.
Altered element	**FEATURE**	In the element **FEATURE** the element **FVALUE** can now be entered more than once in order to describe multiple-value features. The element **VARIANTS** has also been added.
New element	**VARIANTS**	The element **VARIANTS** has been added to the element **FEATURE**, in order to achieve a simpler version of article variants.
New element	**FDESCR**	The element **FDESCR**, for describing features, has been added to the element **FEATURE**.
New element	**FVALUE_DETAILS**	The element **FVALUE_DETAILS**, for describing feature values has been added to the element **FEATURE**.

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New attribute values	**nrp**	A further permitted value "**nrp**" ("nonbinding recommended price") has been added to the attribute "**price_type**" of the element **ARTICLE_PRICE**.
New attribute	**logo**	In the element **MIME_PURPOSE**, "**logo**" has been added as a permitted value.
New attribute	**quantity**	The attribute "**quantity**" has been added to the element **ARTICLE_REFERENCE** in order to permit an indication of the number of articles referred to in references.
New attribute value	**accessories**	The attribute "**type**" of the element **ARTICLE_REFERENCE** has been assigned a further permitted value, "**accessories**", in order to reflect the relationship to an accessory.
New attribute value	**diff_orderunit**	The attribute "**type**" of the element **ARTICLE_REFERENCE** has been assigned a further permitted value "**diff_orderunit**", in order to reflect the relationship to an article with the same basic product in a different order unit.
New attribute value	**consists_of**	The attribute "**type**" of the element **ARTICLE_REFERENCE** has been assigned a further permitted value "**consists_of**" in order to reflect the relationship to a part it contains.
New element	**CATALOG_VERSION**	The element **CATALOG_VERSION** has been included in the element **ARTICLE_REFERENCE** in order to more closely identify catalogs to which there is to be an external reference.
Altered element	**FEATURE_SYSTEM_NAME**	In the format of the element **FEATURE_SYSTEM_NAME**, there is a more detailed description of how version numbers are to be applied/entered.
Altered element	**FEATURE_TEMPLATE**	In the element **FEATURE_TEMPLATE** the sub-element **FT_UNIT** has been altered from a “must” to a “can” field.
New element	**CLASSIFICATION_SYSTEM**	The element Classification System has been included as an alternative to the element **FEATURE_SYSTEM** and extends the descriptive possibilities of classifications. Many new sub-elements have been added to this area. See also the section **Feature group systems and classification systems**.

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Detailed list of alterations from Version 1.2 final draft to Version 1.2

Type	Reference	Explanation
Alteration in documentation	**DATETIME**	The element **DATETIME** has been moved to a position after the element **CATALOG** in the Specification. In Version 1.2 final draft it still appeared after the element **USER_DEFINED_EXTENSIONS**.
Altered element	**HEADER**	The element **BUYER**, within the element **HEADER** has been altered from a Must field to a Can field so that BMEcat catalogs can be compiled which are not directly addressed to a buyer.
Alteration in documentation	**ADDRESS**	The element **ADDRESS** has been moved in the Specification to a position after the element **BUYER**. In Version 1.2 final draft it still appeared after the element **USER_DEFINED_EXTENSIONS**.
Altered element	**ADDRESS**	In the element **ADDRESS**, the element **PUBLIC_KEY** can now be entered more than once, so that a number of public keys can be specified.
New attribute	**type**	The attribute "**type**" has been added to the element **PUBLIC_KEY** so that the coding process can be specified exactly.
Alteration in documentation	**TERRITORY**	The element **TERRITORY** has been given its own description due to the multiple use in **CATALOG** and **ARTICLE_PRICE.**
New element	**ARTICLE_TO_CATALOGGROUP_MAP_ORDER** in the context T_NEW_CATALOG or **ARTICLE_TO_CATALOGGROUP_MAP_ORDER** in the context T_UPDATE_PRODUCTS	The element ARTICLE_TO_CATALOGGROUP_MAP_ORDER has now been included in the element **ARTICLE_TO_CATALOGGROUP_MAP (in the context T_NEW_CATALOG)** and **ARTICLE_TO_CATALOGGROUP_MAP (in the context T_UPDATE_PRODUCTS)**.

2.4. Coding in XML

The coding of individual characters in the XML elements should be specified in each XML file. This is done in the attribute "encoding" of the XML text declaration as in

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

Here "UTF-8" is specified as a character set. BMEcat supports all the character sets which appear in the XML specification (for example ISO-8859-1, UTF-8, UTF-16). With UTF character sets, a character is normally stored in one or more bytes.

It should be noted that the field lengths in the field length column relate to the individual characters and not to the number of bytes used by the character set. For example, the code "Ü" which represents the letter “Ü”, constitutes only one character

2.5. "Must" and "Can" fields

The BMEcat standard distinguishes between optional and mandatory fields. Mandatory (MUST) fields are XML elements which must occur within the surrounding context. Optional (CAN) fields are XML elements which can occur within their context. Both Must and Can fields must be filled, i.e. may not remain empty (not only white spaces). In the diagram showing the structure of the BMEcat elements, the Can fields have a green (or light) background and the Must fields a red (or dark) background.

A product catalog is then BMEcat compliant when it contains all Must fields and no Can fields other than those detailed in this specification in the specified order and with the specified cardinality.

In the BMEcat standard, the short article description **DESCRIPTION_SHORT** within the context **ARTICLE_DETAILS** is a mandatory field, for example, while the long article description **DESCRIPTION_LONG** is an optional field within the same context.

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If, therefore, a catalog document specifies an **ARTICLE_DETAILS** element, a **DESCRIPTION_SHORT** element must follow and may not be empty (not only white spaces), while the **DESCRIPTION_LONG** element can follow **DESCRIPTION_SHORT**.

The principle is demonstrated by the examples set out below.

Example 1: short article description only (must field):

```
<ARTICLE_DETAILS>
    <DESCRIPTION_SHORT>ring binder</DESCRIPTION_SHORT>
</ARTICLE_DETAILS>
```

Example 2: not permitted: short article description (must field):

```
<ARTICLE_DETAILS>
    <DESCRIPTION_SHORT></DESCRIPTION_SHORT>
</ARTICLE_DETAILS>
```

Example 3: short article description (must field) and long article description (can field)

```
<ARTICLE_DETAILS>
    <DESCRIPTION_SHORT>ring binder</DESCRIPTION_SHORT>
    <DESCRIPTION_LONG>This ring binder is very robust </DESCRIPTION_LONG>
</ARTICLE_DETAILS>
```

In order to determine whether an element must be entered, one proceeds from the outside inwards. This is demonstrated by the following example. The element for information on the skeleton **AGREEMENT** is a Can field in the area of the **HEADER** element. Therefore, information on skeleton agreements may be placed in the header, but need not be. However, if it has been decided to use the element **AGREEMENT** then it is necessary, within **AGREEMENT,** to enter the elements **AGREEMENT_ID** for the contract number and **DATETIME** for the final date, as these are Must fields within **AGREEMENT**.

This is demonstrated by the two examples set out below.

Example 4 (HEADER without skeleton agreement information):

```
<HEADER>
    <CATALOG>...</CATALOG>
    <BUYER>...</BUYER>
    <SUPPLIER>...</SUPPLIER>
</HEADER>
```

Example 5 (HEADER with skeleton agreement information):

```
<HEADER>
    <CATALOG>...</CATALOG>
    <BUYER>...</BUYER>
    <AGREEMENT>                                              <!—can be entered (Can Field) -->
        <AGREEMENT_ID>21312<AGREEMENT_ID>                    <!—must be entered  (Must Field) -->
        <DATETIME type="agreement_end_date">                 <!—Must Field-->
            <DATE>2002-05-31</DATE>                          <!—Must Field-->
        </DATETIME>
    </AGREEMENT>
    <SUPPLIER>...</SUPPLIER>
</HEADER>
```

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3. Transactions

Transactions specify which parts of a product catalog are to be transferred with a catalog document. Exactly one transaction must be specified in a catalog document. The transaction is entered in the transaction part after the header .

The BMEcat Standard distinguishes between three different types of transaction:

1. Transfer of a new product catalog: **T_NEW_CATALOG**
2. Update of product data: **T_UPDATE_PRODUCTS**
3. Update of article prices: **T_UPDATE_PRICES**

The application of certain transactions makes it possible to reduce the size of catalog documents. A supplier could, for example transfer his entire product catalog once a year with the transaction **T_NEW_CATALOG** and conduct a price update every three months with the aid of the transaction **T_UPDATE_PRICES**. Whereas in the first case the entire product catalog, with all articles, catalog groups etc., will be transferred, in the second case only price information for certain articles will be transferred.

Each transaction is represented by an element with the same name as the transaction. The sub-elements, which may be used in this element, differ depending on the type of transaction.

The sub-elements required for a transaction are listed in the description of the relevant elements (**T_NEW_CATALOG**, **T_UPDATE_PRODUCTS**, **T_UPDATE_PRICES**). See also **Example (Interaction of various transactions)**

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4. Data types

Data types specify the value format and range of all the elements used in a catalog document.

Each atomic element is assigned exactly one data type. The use of data types permits the semantics of catalog document elements to be specified precisely. This is a basic precondition for importing or exporting catalog documents. External systems which generate or process catalog documents then know which format a particular document expects values to be entered in and can recognize the format in which they are saved.

The BMEcat Standard distinguishes between the data types **Scalar data types**, **Enumerated data types**, and **Aggregated data types**.

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4.1. Scalar data types

The BMEcat standard uses the following scalar data types.

Name	Description/ Format	Example
STRING	PCDATA[2]	Charlie casual shirt
NUMBER	Numeric value. Used whenever a more specific numeric format is either not required or impractical. There are no restrictions regarding minimum or maximum values, the number of digits or the number of decimal places. The decimal separator is the dot. No separator for thousand is permitted.	Examples: 15 3.14 -123.456E+10 Error: 13,20 1.000.000
INTEGER	Whole number with an optional sign. No fractions. No floating-point numbers. No separator for thousand is permitted.	1; 58502; -13
FLOAT	Floating-point number in accordance with IEEE The decimal separator is the dot. No separator for thousand is permitted.	.314159265358979E+1
BOOLEAN	The values "true" or "false" can be entered, case-insensitive, i.e. regardless of whether in capitals or small letters.	TRUE or true or True
DATETYPE	Date in ISO 8601 format (YYYY-MM-DD) (see http://www.w3.org/TR/NOTE-datetime)	1999-07-28
TIMETYPE	Time in ISO 8601 format (HH:MM:SS) without the time zone (see http://www.w3.org/TR/NOTE-datetime)	06:17:55
TIMEZONETYPE	Time zone is in ISO 8601 format (see http://www.w3.org/TR/NOTE-datetime)	+0100

[2] PCDATA stands for »Parsed Character DATA« and refers to a string of alphanumeric characters that do not contain any XML.

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4.2. Enumerated data types

The BMEcat standard uses a variety of enumerated data types based on internationally common standards:

An enumerated data type is a set of string constants. If an element has an enumerated data type, this element can only be assigned a value which belongs to the set of these constants. Therefore only values from this range – generally defined by standards – are permitted.

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Name	Description	Format	Underlying standard	Example
COUNTRIES	Country codes to indicate areas of availability (**TERRITORY**). The country subdivision codes can be used to subdivide country codes further, for example into regions.	6 characters	ISO 3166-1:1997 Country codes [ISO-3166-1:1997] http://www.din.de/gremien/nas/nabd/iso3166ma/codlstp1/index.html Compare also: ISO 3166-2:1998 Country subdivision codes [ISO-3166-2:1998] http://www.din.de/gremien/nas/nabd/iso3166ma/devrel_2.html http://193.194.138.128/locode/ ISO 3166-3:1999 Code for formerly used names of countries [ISO-3166-3:1999]	DE (Germany); US (USA) DE-NW (North-Rhine Westphalia in Germany) DK-025 (Roskilde Administrative District in Denmark)
CURRENCIES	Currency codes to indicate currency with prices (**CURRENCY** and **PRICE_CURRENCY**)	3 characters	ISO 4217:1995 Currency codes [ISO-4217:1995] http://www.unece.org/cefact/rec/rec09en.htm Note: Since 1997 the code "EUR" instead of "XEU" has been in place for Euro. This is proscribed as the official code ISO 4217:2000. It is therefore urgently recommended that "EUR" be used as code for Euro.	DEM (Deutsche Mark); USD (US-Dollar)
LANG	Language codes to indicate the language used in texts or with pictures	3 characters	ISO 639-2:1998 Language code [ISO-639-2:1998]	deu (German)
UNIT	This data type is used to represent units of measurement such as m (Meter), kg (Kilogram) or km/h. However it does not contain the Package Units from the next section.	maximal 3 characters	UN/ECE Recommendation 20 (all except "Package Units") http://www.unece.org/cefact/rec/rec20en.htm	MTR (Meter, meter)
PUNIT	Package unit codes: this list contains the permitted package units	maximal 3 characters	UN/ECE Recommendation 20 / Package Units http://www.unece.org/cefact/rec/rec20en.htm	C62 (piece, Stück)

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4.3. Aggregated data types

The BMEcat standard consists of the data type **DATETIME**, to define a date or time. The data type is represented as an element, which itself is made up of three elements **DATE**, **TIME** and **TIMEZONE**. An exact description is to be found in the element reference under type **DATETIME**.

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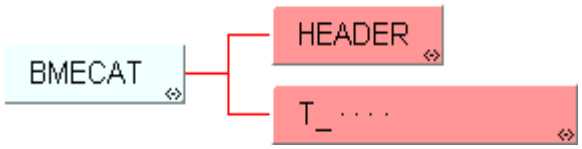
5. Reference of elements

BMECAT

Every valid catalog document in BMEcat format starts with a BMECAT tag and consists of a header part (**HEADER**) and a transaction part (**T_NEW_CATALOG**, **T_UPDATE_PRODUCTS** or **T_UPDATE_PRICES**).

The header part is entered at the beginning of the catalog document; it contains global data that is valid for all types of catalog data interchange, for example further details about the supplier or information concerning a skeleton agreement of the kind that sometimes exists between the buying firm and the supplier.

The transaction part specifies which parts of the catalog (the complete catalog, for instance, or just prices that have been updated) are to be transferred.



General

Used in	Default value	Data type	Lang. specific	Field length
-	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Version	version	Must	Specifies the version of the BMEcat standards with which the catalog document complies; Format: “Major Version“. “Minor Version“ (Example: "1.2")	-	**STRING**	-	7

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Header	**HEADER**	Must	Single	In the header, information on the product catalog and the catalog document are transferred and the default value set	-	-	-	-
Transaction area	**T_NEW_CATALOG** **T_UPDATE_PRODUCTS** **T_UPDATE_PRICES**	Must	Single	In this area, transaction-specific information is transferred such as product information or structure information. One of the three listed elements must be used exactly here.	-	-	-	-

Example:

A catalog document in BMEcat format, containing a "New Catalog" transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE BMECAT SYSTEM "bmecat_new_catalog.dtd">

<BMECAT version="1.2" xml:lang="de" xmlns="http://www.bmecat.org/bmecat/1.2/bmecat_new_catalog">
<HEADER>
    ...
</HEADER>
<T_NEW_CATALOG>
    ...
</T_NEW_CATALOG>
</BMECAT>
```

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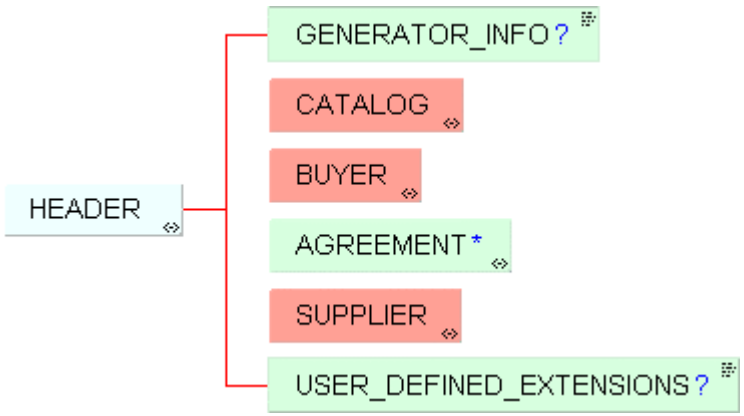
HEADER

The header part is specified by the HEADER element. The HEADER element references general information on the catalog document and sets default values.



General

Used in	Default value	Data type	Lang. specific	Field length
BMECAT	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Language-dependent	d length
Generator information	GENERATOR_INFO	Can	Single	The tool which is used to generate the catalog can save various information here, e.g. tool name, generation date, serial number, etc.	-	**STRING**	-	250
Catalog information	**CATALOG**	Must	Single	Information which identifies and describes the product catalog and the catalog document as well as areas for which default values are to be set.	-	-	-	-
Buyer information	**BUYER**	Can	Single	Information on the buying firm (catalog recipient) The element **BUYER** within the element HEADER in the Version 1.2 has been altered from a Must to a Can element so that catalogs can be compiled which are not directly addressed to a buyer.	-	-	-	-
Skeleton agreements	**AGREEMENT**	Can	Multiple	Information on the skeleton agreement which serves as a basis for the creation of the catalog document	-	-	-	-
Supplier information	**SUPPLIER**	Must	Single	Information on the supplying (catalog generating) firm	-	-	-	-
User-defined extensions	**USER_DEFINED_EXTENSIONS**	Can	Single	Area for the transfer of user's own elements	-	-	-	-

Example:

```
<HEADER>
    <GENERATOR_INFO>Created by BMEcat-Generator 1.7  24.12.2000</GENERATOR_INFO>
    <CATALOG>...</CATALOG>
    <BUYER>...</BUYER>
    <SUPPLIER>...</SUPPLIER>
</HEADER>
```

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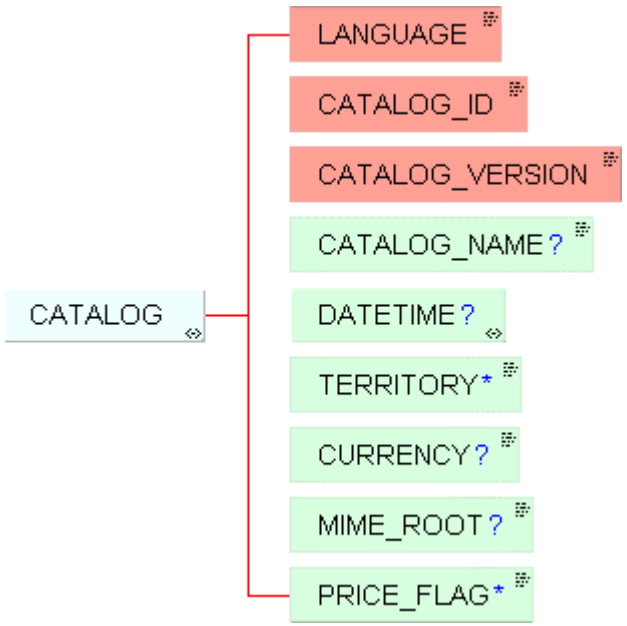
CATALOG

This element is used to transfer information for identifying and describing the product catalog as well as the catalog documents and consists of elements for the setting of default values.



General

Used in	Default value	Data type	Language-dependent	d length
HEADER	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Catalog language	LANGUAGE	Must	Single	is used to define the language in the product and catalog data part. See also **Example (Interaction of various transactions)**	-	**LANG**	-	3
Catalog ID	CATALOG_ID	Must	Single	Unique catalog identification. This ID is normally allocated by the supplier when the catalog is generated and remains unchanged throughout the entire lifecycle of the catalog.	-	**STRING**	-	20
Catalog version	CATALOG_VERSION	Must	Single	Version number of the catalog. May only be reset on the target system in conjunction with a **T_NEW_CATALOG** transaction and not in the case of updates, see also **Example (Interaction of various transactions)** Format: “MajorVersion“.“MinorVersion“ (maximum xxx.yyy) Example: 001.120 7.3	-	**STRING**	-	7
Catalog name	CATALOG_NAME	Can	Single	Any name that describes the catalog. Example: Autumn/Winter 1999/2000	-	**STRING**	Y	100
Generation date	**DATETIME** type="generation_date"	Can	Single	Time stamp indicating when the catalog was generated.	-	**DATETIME**	-	-
Territorial availability	**TERRITORY**	Can	Multiple	The element defines the territories (region, federal state, country, continent) in which the products described in the catalog are available.	-	**COUNTRIES**	-	6
Standard currency-	CURRENCY	Can	Single	The element defines which currency is used as a specified value for the prices specified in the catalog. If the currency of an individual product differs from these global specification, or this element CURRENCY is not specified, a currency must be indicated in the **PRICE_CURRENCY** field for the product in question. Note: The currency must be specified either in the **HEADER** or for each individual article. It is, however, advisable to define the currency in the **HEADER**.	-	**CURRENCIES**	-	3
MIME root directory	MIME_ROOT	Can	Single	A relative directory specification can be entered here (and/or a URI), i.e. one to which the relative paths in **MIME_SOURCE** refer.	-	**STRING**	Y	100

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Price flag	PRICE_FLAG type=...	Can	Multiple	Flag used to specify all the prices in a catalog more precisely (e.g. with/without freight) Where these fields have not been filled out, no statement on the various components of the price base will be made within the catalog document. See also "**Attributes of PRICE_FLAG**" and "**List of permitted values for the "type" attribute of the element PRICE_FLAG**" Example: <PRICE_FLAG type="incl_freight">true</PRICE_FLAG> means that freight costs are included in all the listed prices. <PRICE_FLAG type="incl_freight">false</PRICE_FLAG> means that the freight costs are not included in the listed prices. Where the element PRICE_FLAG does not occur with the attribute "incl_freight", the catalog document gives no indication of whether the prices are with or without freight. This must therefore be stipulated elsewhere (e.g. in the skeleton agreement).	-	**BOOLEAN**	-	5

Attributes of PRICE_FLAG

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. dependent	Field length
Type of costs included	type	Must	This attribute specifies the pool of costs which have an indication of whether or not they contribute to price formation. See also "**List of permitted values for the "type" attribute of the element PRICE_FLAG**"	-	**STRING**	-	50

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List of permitted values for the "type" attribute of the element PRICE_FLAG

Designation	Attribute value	Explanation
Including freight	incl_freight	Price includes freight costs
Including packing	incl_packing	Price includes packing costs
Including insurance	incl_assurance	Price includes insurance
Including duty	incl_duty	Price includes duty

Example

```
<CATALOG>
    <LANGUAGE>eng</LANGUAGE>
    <CATALOG_ID>12348s5121</CATALOG_ID>
    <CATALOG_VERSION>7.0</CATALOG_VERSION>
    <CATALOG_NAME>Office Supplies 2001</CATALOG_NAME>
    <DATETIME type="generation_date">
        <DATE>2000-10-24</DATE>
        <TIME>20:38:00</TIME>
    </DATETIME>
    <TERRITORY>DE</TERRITORY>
    <TERRITORY>CH</TERRITORY>
    <TERRITORY>NL</TERRITORY>
    <CURRENCY>DEM</CURRENCY>
    <MIME_ROOT>/mime-files/</MIME_ROOT>
    <PRICE_FLAG type="incl_freight">TRUE</PRICE_FLAG>
    <PRICE_FLAG type="incl_assurance">false</PRICE_FLAG>
    <PRICE_FLAG type="incl_duty">True</PRICE_FLAG>
</CATALOG>
```

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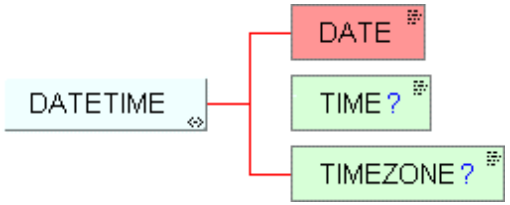
DATETIME

The element DATETIME is used to precisely define a time. It is made up of the three elements date, time and time zone. DATETIME is used at various places within the BMEcat formats. The description of the time involved is carried out through the attribute “type” which can accept various pre-defined values.



General

Used in	Default value	Data type	Lang. specific	Field length
CATALOG, **AGREEMENT**, **ARTICLE_PRICE_DETAILS**	-	-	-	-

Attribute

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Date type	type	Must	Specifies the date type in more detail.; Value range: depending on context	-	**STRING**	-	20

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List of permitted values for the attribute "type" (context-specific)

Designation	Attribute value	Explanation
Generation date	**generation_date**	Date on which the catalog document was compiled; is used in the element **CATALOG**
Agreement start date	**agreement_start_date**	Date on which the skeleton agreement comes into effect; is used in the element **AGREEMENT**
Agreement end date	**agreement_end_date**	Date on which the skeleton agreement terminates; is used in the element **AGREEMENT**
Valid start date	**valid_start_date**	Date on which a price becomes valid; is used in the element **ARTICLE_PRICE_DETAILS**
Valid end date	**valid_end_date**	Date on which a price becomes invalid; is used in the element **ARTICLE_PRICE_DETAILS**

Elements

Designation	Element name	Must/Can	Simple/Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Date	DATE	Must	Single	Element for date	-	**DATETYPE**	-	-
Time	TIME	Can	Single	Element for time	-	**TIMETYPE**	-	-
Time zone	TIMEZONE	Can	Single	Element for timezone		**TIMEZONETYPE**	-	

Example:

The skeleton agreement comes into effect on 25 October, 2000 at 23:13 hrs GMT

```
<DATETIME type="agreement_start_date">
   <DATE>2000-10-25</DATE>
   <TIME>23:13:00</TIME>
   <TIMEZONE>GMT</TIMEZONE>
</DATETIME>
```

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TERRITORY

TERRITORY defines the territories (region, federal state, country, continent) in which the products described in the catalog are available. Availability relates to the delivery address for the products being ordered. In the element **CATALOG** it is possible to stipulate the delivery addresses for which products in the catalog can generally be ordered. If the availability of the individual product differs from the global specifications, the area of availability must be indicated by specifying the TERRITORY element in the field **ARTICLE_PRICE** with the product itself. Where neither the element **CATALOG** nor the article TERRITORY nor the articles use a TERRITORY element, no details on areas of availability of an article will be given within the catalog document.

Where the territory in the product catalog is DE, all products are delivered only within Germany and are consequently available only there. The order may, however, be placed from a different country and the invoice address may also be in a different country.

In addition to values for countries, values for regions are also foreseen.

The element is concretized in Version 1.2.

Caution: Some target systems may be unable to process this element. This could lead to problems of inconsistency.

General

Used in	Default value	Data type	Lang. specific.	Field length
CATALOG, ARTICLE_PRICE	-	**COUNTRIES**	-	6

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Example 1:

All products in the product catalog can be delivered in Germany, Switzerland and the Netherlands.

```
<CATALOG>
   ...
   <TERRITORY>DE</TERRITORY>
   <TERRITORY>CH</TERRITORY>
   <TERRITORY>NL</TERRITORY>
   ...
</CATALOG>
```

Example 2:

The product “55-K-31“ is available only in Germany.

```
<ARTICLE>
   <SUPPLIER_AID>55-K-31</SUPPLIER_AID>
   ...
   <ARTICLE_PRICE_DETAILS>
      <ARTICLE_PRICE price_type="net_customer">
         <PRICE_AMOUNT>2.12</PRICE_AMOUNT>
         <PRICE_CURRENCY>DEM</PRICE_CURRENCY>
         <TAX>0.16</TAX>
         <PRICE_FACTOR>0.8</PRICE_FACTOR>
         <LOWER_BOUND>1</LOWER_BOUND>
         <TERRITORY>DE</TERRITORY>
      </ARTICLE_PRICE>
   </ARTICLE_PRICE_DETAILS>
   ...
</ARTICLE>
```

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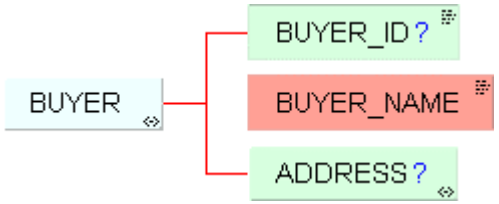
BUYER

Information on the purchasing firm is transferred in this element.



General

Used in	Default value	Data type	Lang. specific	Field length
HEADER	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. dependant	Field length
ID of the buying company	BUYER_ID type=... *	Can	Single	Specific number of the buying company; the optional attribute “type” determines the type of ID See also "**Attributes of BUYER_ID**” and "**List of pre-defined values for the "type" attribute of the element BUYER_ID**"	-	**STRING**	-	50
Buyer’s name	BUYER_NAME	Must	Single	Name of the purchasing company or organization	-	STRING	-	50
Buyer’s address	**ADDRESS** type="buyer"	Can	Single	See also “**List of permitted values for the "type" attribute of the element ADDRESS (in this context)**"	-	-	-	-

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Attributes of BUYER_ID

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Type of ID	type	Can	This attribute specifies the type of ID, i.e. indicates the organization issuing the ID. See also "**List of pre-defined values for the "type" attribute of the element BUYER_ID**"	-	STRING	-	50

List of pre-defined values for the "type" attribute of the element BUYER_ID

Designation	Attribute value	Explanation
Dun & Bradstreet	duns	DUNS identification of the buyer (see also https://www.dnb.com/dunsno/dunsno.htm)
International buyer ID	iln	ILN identification of the buyer (see also http://www.ccg.de/deutsch/identi/identi.htm)
Buyer's supplier number	buyer_specific	Identification used by the buyer for the supplier
Own supplier number	supplier_specific	Identification used by the supplier for himself

List of permitted values for the "type" attribute of the element ADDRESS (in this context)

Designation	Attribute value	Explanation
Buyer	buyer	This attribute indicates that the address belongs to a buying company

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Example:

```
<BUYER>
    <BUYER_ID>1234</BUYER_ID>
    <BUYER_NAME>Fraunhofer IAO</BUYER_NAME>
    <ADDRESS type="buyer">
        <NAME>Fraunhofer IAO</NAME>
        <NAME2>Marktstrategieteam Electronic Business Systems</NAME2>
        <STREET>Holzgartenstrasse 17</STREET>
        <ZIP>70174</ZIP>
        <CITY>Stuttgart</CITY>
        <COUNTRY>Germany</COUNTRY>
        <PHONE>+49 711 970 0</PHONE>
        <URL>http://www.e-business.iao.fhg.de</URL>
    </ADDRESS>
</BUYER>
```

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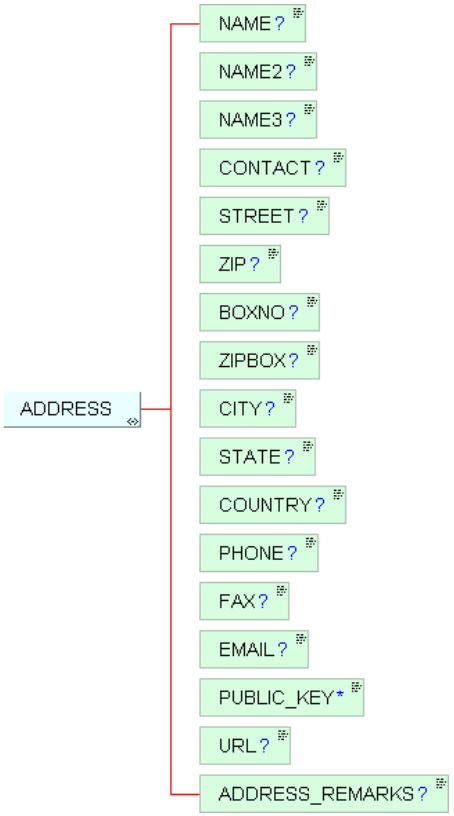
ADDRESS

These elements are used to transfer address information to buying and supplying companies.



General

Used in	Default value	Data type	Lang. specific	Field length
BUYER, **SUPPLIER**	-	-	-	-

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Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Type of address	type	Must	Specifies the data type in more detail; Value range: see following "**List of permitted values for the “type“ attribute (depending on context)**"	-	STRING	-	8

List of permitted values for the “type“ attribute (depending on context)

Designation	Attribute value	Explanation
Buyer	**buyer**	This attribute indicates that the address belongs to a buying company.
Supplier	**supplier**	This attribute indicates that the address belongs to a supplying company.

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Address line	NAME	Can	Single		-	STRING	Y	50
Address line2	NAME2	Can	Single	e.g. for department	-	STRING	Y	50
Address line3	NAME3	Can	Single		-	STRING	Y	50
Contact	CONTACT	Can	Single		-	STRING	Y	50
Street	STREET	Can	Single	Street name and house number	-	STRING	Y	50
Zip code	ZIP	Can	Single		-	STRING	Y	20
P.O. Box	BOXNO	Can	Single		-	STRING	Y	20
Zip code of P.O. Box	ZIPBOX	Can	Single		-	STRING	Y	20
Town or city	CITY	Can	Single		-	STRING	Y	50
Federal state	STATE	Can	Single		-	STRING	Y	50
Country	COUNTRY	Can	Single		-	STRING	Y	50
Telephone number	PHONE	Can	Single		-	STRING	Y	30
Fax number	FAX	Can	Single		-	STRING	Y	30
e-mail address	EMAIL	Can	Single		-	STRING	-	100
Public key	PUBLIC_KEY type=… 	Can	Multiple 	Indicates the public key, e.g. of the person addressed here In Version 1.2, in contrast to Version 1.2 final draft, the attribute “**type**” has been added in order to permit the coding process to be specified more precisely. Furthermore, the element PUBLIC_KEY can bow be entered more than once, so that a number of public keys can be specified.	-	STRING	-	64.000
WWW	URL	Can	Single		-	STRING	-	100
Remarks	ADDRESS_REMARKS	Can	Single		-	STRING	Y	250

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Attributes of PUBLIC_KEY

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Type of coding process	type	Must	This attribute indicates the Public Key coding process in which the e-mail is coded. This data often relates to the software used. Must comply with the format "<Name>-<MajorVersion>.<MinorVersions>“. Example.: PGP-6.5.1	-	STRING	-	50

Example:

```
<ADDRESS type="supplier">
   <NAME>University of Essen</NAME>
   <NAME2>Institute of Procurement, Logistics and Informationmanagement</NAME2>
   <CONTACT>Volker Schmitz</CONTACT>
   <STREET>Universitaetsstr. 9</STREET>
   <ZIP>45141</ZIP>
   <BOXNO>45117</BOXNO>
   <CITY>Essen</CITY>
   <COUNTRY>Germany</COUNTRY>
   <PHONE>+49 201 183 4084</PHONE>
   <FAX>+49 201 183 934084</FAX>
   <EMAIL>volker.schmitz@uni-essen.de</EMAIL>
   <URL>http://www.bli.uni-essen.de</URL>
</ADDRESS>
```

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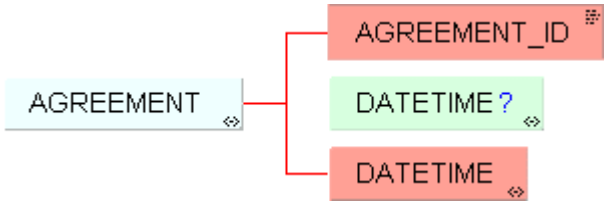
AGREEMENT

The element AGREEMENT references a skeleton agreement, on which the catalog document is based. Agreements which cannot be transported in the catalog document are regulated in this skeleton agreement.



General

Used in	Default value	Data type	Lang. specific	Field length
HEADER	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Skeleton agreement ID	AGREEMENT_ID	Must	Single	ID used to identify a skeleton agreement	-	**STRING**	-	50
Start date	**DATETIME** type= "agreement_start_date"	Can	Single	Date on which the skeleton agreement comes into effect See also "**List of permitted values for the "type" attribute of the DATETIME element (in this context)**"	-	-	-	-
End date	**DATETIME** type= "agreement_end_date"	Must	Single	Date on which the skeleton agreement is terminated See also "**List of permitted values for the "type" attribute of the DATETIME element (in this context)**"	-	-	-	-

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List of permitted values for the “type“ attribute of the DATETIME element (in this context)

Designation	Attribute value	Explanation
Agreement start date	agreement_start_date	Day or time on which the skeleton agreement comes into effect
Agreement end date	agreement_end_date	Day or time on which the skeleton agreement terminates

Example:

```
<AGREEMENT>
    <AGREEMENT_ID>23/97</AGREEMENT_ID>
    <DATETIME type="agreement_start_date">
        <DATE>1999-03-17</DATE>
    </DATETIME>
    <DATETIME type="agreement_end_date">
        <DATE>2002-05-31</DATE>
    </DATETIME>
</AGREEMENT>
```

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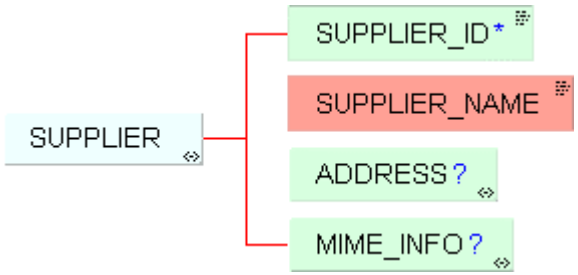
SUPPLIER

Information on the supplying company are transferred in this element.



General

Used in	Default value	Data type	Lang. specific	Field length
HEADER	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Supplier ID	SUPPLIER_ID type=...	Can	Multiple	Unique identification of the supplier which can be used internally by the buying firm. The type attribute determines the type of the ID. See also "**Attributes of SUPPLIER_ID**" and "**List of pre-determined values for the "type" attribute of the SUPPLIER_ID element**"	-	**STRING**	-	50
Name of the supplier	SUPPLIER_NAME	Must	Single	Name of the supplying company/organization	-	**STRING**	-	50
Address of the supplier	**ADDRESS** type="supplier"	Can	Single	See also "List of permitted values for the "type" attribute of the ADDRESS element (in this context)"	-	-	-	-
Supplier's logo	**MIME_INFO**	Can	Single	Additional multimedia file containing the suppliers logo; the element **MIME_INFO** should accept the value "**logo**" in the sub-element **MIME_PURPOSE**	-	-	-	-

Attributes of SUPPLIER_ID

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
ID type	type	Can	This attribute specifies the type of ID, i.e. indicates the organization issuing the ID. See also "**List of pre-determined values for the "type" attribute of the SUPPLIER_ID element**".	-	**STRING**	-	50

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List of pre-determined values for the “type” attribute of the SUPPLIER_ID element

Designation	Attribute value	Explanation
Dun & Bradstreet	duns	DUNS identification of the supplier (See also https://www.dnb.com/dunsno/dunsno.htm)
International supplier ID	iln	ILN identification of the supplier (See also http://www.ccg.de/deutsch/identi/identi.htm)
Buyer’s supplier number	buyer_specific	Identification used by the buyer for the supplier
Own supplier number	supplier_specific	Identification used by the supplier for himself

List of permitted values for the “type” attribute of the ADDRESS element (in this context)

Designation	Attribute value	Explanation
Supplier	supplier	This attribute value indicates that the address belongs to a supplying company.

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Example:

```
<SUPPLIER>
    <SUPPLIER_ID type="supplier_specific">UEG-FB5-BLI</SUPPLIER_ID>
    <SUPPLIER_NAME>University of Essen</SUPPLIER_NAME>
    <ADDRESS type="supplier">
        <NAME>Department of Information Systems</NAME>
        <NAME2>Institute of Procurement, Logistics and Informationmanagement</NAME2>
        <CONTACT>Volker Schmitz</CONTACT>
        <STREET>Universitaetsstr. 9</STREET>
        <ZIP>45117</ZIP>
        <CITY>Essen</CITY>
        <COUNTRY>Germany</COUNTRY>
        <PHONE>+49 201 183 4084</PHONE>
        <FAX>+49 201 183 934084</FAX>
        <EMAIL>volker.schmitz@uni-essen.de</EMAIL>
        <URL>http://www.bli.uni-essen.de</URL>
    </ADDRESS>
    <MIME_INFO>
        <MIME>
            <MIME_TYPE>image/jpeg</MIME_TYPE>
            <MIME_SOURCE>supplier_logo.jpg</MIME_SOURCE>
            <MIME_PURPOSE>logo</MIME_PURPOSE>
        </MIME>
    </MIME_INFO>
</SUPPLIER>
```

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USER_DEFINED_EXTENSIONS

The element USER_DEFINED_EXTENSIONS marks the area in which user-defined elements can be added to a catalog document. In this way it is possible for supplier and purchasing organization to exchange additional data which is not specified in the standard. The structures of the elements may be complicated. Any XML expressions are permitted.

In the various contexts in which they can occur, USER_DEFINED_EXTENSIONS are defined exclusively as Can fields. Therefore, it is expressly pointed out that if user-defined extensions are used they must be compatible with the target systems and should be clarified on a case-to-case basis.

The names of the elements must be clearly distinguishable from the names of other elements contained in the BMEcat standard. For this reason, all element must start with the string "UDX" (Example: `<UDX.supplier.elementname>`).

When user-defined elements with the element USER_DEFINED_EXTENSIONS are to be transferred, the entity USERDEFINES, which is defined in the bmecat_base.dtd, must be newly-defined in the XML document. This enables the user to define even complex structures according to his own specifications.

General

Used in	Default value	Data type	Lang. specific	Field length
HEADER, ARTICLE (in the context T_NEW_CATALOG), ARTICLE (in the context T_UPDATE_PRODUCTS), ARTICLE (in the context T_UPDATE_PRICES), CATALOG_STRUCTURE	-	**STRING**	Y	-

Example:

The following two examples compare the beginning of a BMEcat compliant catalog document without the use of USER_DEFINED_EXTENSIONS with the alterations which must be made where the user's own structures are applied.

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Example 1: ("normal" BMEcat XML file)

```
<!DOCTYPE BMECAT SYSTEM "bmecat_new_catalog.dtd">
```

Example 2: (BMEcat XML file with USER_DEFINED_EXTENSIONS)

```
<!DOCTYPE BMECAT SYSTEM "bmecat_new_catalog.dtd"
[
    <!ENTITY % USERDEFINES "(UDX.UGE.ROOMNR?,UDX.UGE.VALUATION?,UDX.UGE.LEVEL?)">
    <!ELEMENT UDX.UGE.ROOMNR (#PCDATA)>
    <!ELEMENT UDX.UGE.VALUATION (#PCDATA)>
    <!ELEMENT UDX.UGE.LEVEL (#PCDATA)>
]
>
```

Example 3: (Use of USER_DEFINED_EXTENSIONS within the catalog document)

```
<HEADER>
    ...
    <USER_DEFINED_EXTENSIONS>
        <UDX.UGE.ROOMNR>R09 R01 H41</UDX.UGE.ROOMNR>
    </USER_DEFINED_EXTENSIONS>
</HEADER>
```

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T_NEW_CATALOG

The T_NEW_CATALOG is used to transfer a product catalog anew. Therefore all the elements specified in the BMEcat standard can be used (with the exception of **T_UPDATE_PRODUCTS** and **T_UPDATE_PRICES**).

With the T_NEW_CATALOG transaction the target system reacts to the transferred data as follows depending on the **CATALOG_ID**, **CATALOG_VERSION** and **LANGUAGE** received:

<table>
<tr><td colspan="4">Is the CATALOG_ID of the respective supplier (SUPPLIER_NAME) already present in the target system?</td></tr>
<tr><td colspan="3">Yes</td><td>No</td></tr>
<tr><td colspan="3">Is the CATALOG_VERSION in the target system identical</td><td rowspan="5">A new catalog is created and all data imported.</td></tr>
<tr><td colspan="2">Yes</td><td>No</td></tr>
<tr><td colspan="2">Does the (LANGUAGE) already exist in the target system?</td><td rowspan="3">A new version of the existing catalog is created and all data imported.</td></tr>
<tr><td>Yes</td><td>No</td></tr>
<tr><td>Acceptance of the catalog will be refused by the target system and a corresponding error message given.</td><td>The new language will be added to the existing catalog and all language-specific data imported.</td></tr>
</table>

When the T_NEW_CATALOG transaction is being effected, the **CATALOG_VERSION** new and the "**prev_version**" must be set to 0 at the next other transaction type (**T_UPDATE_PRODUCTS**, **T_UPDATE_PRICES**). See also: **Example (Interaction of various transactions)**.

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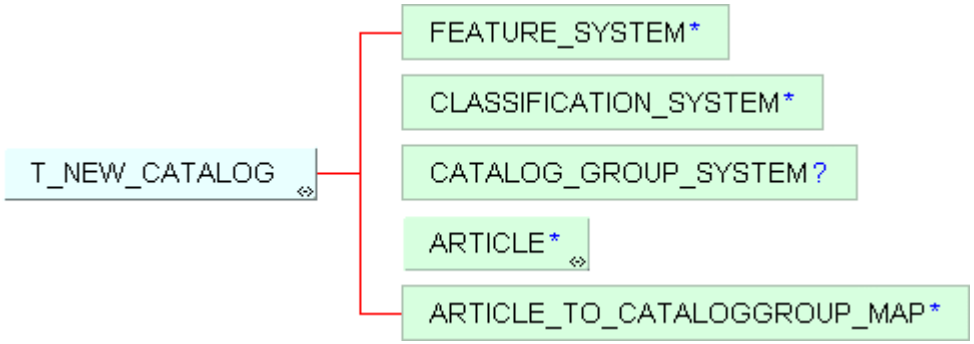

General

Used in	Default value	Data type	Lang. specific	Field length
BMECAT	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
No of previous updates	prev_version	Can	Caution: The meaning of the attribute has been changed from BMEcat Version 1.01 to Version 1.2. "prev_version" should not be entered with this transaction; the option of doing so exists here only for reasons of compatibility with 1.01 and "prev_version" must be ignored here; see also "**prev_version**" with **T_UPDATE_PRODUCTS** and "**prev_version**" with **T_UPDATE_PRICES**. See also **Example (Interaction of various transactions)**	-	INTEGER	-	5

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Feature group systems	**FEATURE_SYSTEM**	Can	Multiple	The element **FEATURE_SYSTEM** is used to represent a feature group system. The possibilities for description are limited compared to the **CLASSIFICATION_SYSTEM** element. This element is retained for reasons of compatibility. In the next BMEcat version it will be completely replaced by the **CLASSIFICATION_SYSTEM** element. See also "**Feature group systems and classification systems**"	-	-	-	-
Classification system	**CLASSIFICATION_SYSTEM** 	Can	Multiple	A classification can be completely represented by the element **CLASSIFICATION_SYSTEM**. It therefore replaces the **FEATURE_SYSTEM** element which will no longer be supported by the next BMEcat version. New in Version 1.2. See also "**Feature group systems and classification systems**"	-	-	-	-
Catalog group system	**CATALOG_GROUP_SYSTEM**	Can	Single	A hierarchical group structure permits the building up of a **CATALOG_GROUP_SYSTEM** element, to which articles can be assigned. This makes them easier to find.	-	-	-	-
Article	**ARTICLE (in the context T_NEW_CATALOG)**	Can	Multiple	An ARTICLE element consists of all the information on an article. The transaction **T_NEW_CATALOG** can contain any number of articles.	-	-	-	-
Assigning articles to catalog groups	**ARTICLE_TO_CATALOGGROUP_MAP (in the context T_NEW_CATALOG)**	Can	Multiple	An article is assigned to a group of a catalog group system using the element ARTICLE_TO_CATALOGGROUP_MAP.	-	-	-	-

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Example:

```
<T_NEW_CATALOG>
    <FEATURE_SYSTEM>...</FEATURE_SYSTEM>
    <FEATURE_SYSTEM>...</FEATURE_SYSTEM>
    <CLASSIFICATION_SYSTEM>...          </CLASSIFICATION_SYSTEM>
    <CATALOG_GROUP_SYSTEM>...       </CATALOG_GROUP_SYSTEM>
    <ARTICLE mode="new">...</ARTICLE>
    <ARTICLE mode="new">...</ARTICLE>
    <ARTICLE mode="new">...</ARTICLE>
    <ARTICLE_TO_CATALOGGROUP_MAP>...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP>...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP>...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP>...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP>...</ARTICLE_TO_CATALOGGROUP_MAP>
</T_NEW_CATALOG>
```

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Example (Interaction of various transactions):

This example demonstrates the interaction of the elements **LANGUAGE** and **CATALOG_VERSION** as well as the attribute "**prev_version**" in **T_UPDATE_PRODUCTS** or "**prev_version**" in **T_UPDATE_PRICES** and "**mode**" in **ARTICLE (in the context T_UPDATE_PRODUCTS)** with a series of different transactions.

Action	Transaction	Reaction of the target system	LANGUAGE	CATALOG_ID	CATALOG_VERSION	prev_version	ARTICLE.mode
Importing a new product catalog	**T_NEW_CATALOG**	A complete new catalog is imported. No data from previous catalog versions is imported. All articles are newly entered	deu	23	2.0	-	-, as always new
Importing an additional language for the new product catalog	**T_NEW_CATALOG**	Only the language-specific data for the altered or new article is imported. All other information (e.g. price) which may differ from the previous transfer will be ignored.	eng	23	2.0	-	-, as always new
Importing updated prices	**T_UPDATE_PRICES**	All price information on various articles is updated. All the prices existing for these articles in the target system will be deleted and newly entered.	of no significance as prices not language-specific	23	2.0	0	-, as always new
Importing updated-prices	**T_UPDATE_PRICES**	See previous line	of no significance as prices not language-specific	23	2.0	1	-, as always new
Importing new and updated articles and deleting articles	**T_UPDATE_PRODUCTS**	All non language-specific elements as well as the language-specific elements in German on the stipulated articles will be updated and new articles added. The language-specific, English-language information on the previous transaction **T_NEW_CATALOG** (in English) remain unaffected. Where an article is deleted, all (language-specific and non language-specific) data is also deleted. Information which cannot be transferred via BMEcat and is updated directly into the target system should not be deleted.	deu	23	2.0	2	new, update or delete

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Importing an additional language for altered articles	**T_UPDATE_PRODUCTS**	All non language-specific elements as well as the language-specific elements in English on the stipulated articles will be updated and new articles added. The language-specific, German-language information on the previous transaction **T_NEW_CATALOG** (in German) remain unaffected. Where an article is deleted, all (language-specific and non language-specific) data is also deleted Information which cannot be transferred via BMEcat and which is updated directly into the target system should not be deleted.	eng	23	2.0	3	new, update or delete
Transferring updated prices	**T_UPDATE_PRICES**		Of no significance	23	2.0	4	-, as always update
...	...	...	...	...	...	...	...
Importing a new product catalog	**T_NEW_CATALOG**	A complete new catalog is imported. No data from previous catalog versions is imported. All articles are newly entered.	deu	23	3.0	-	-, as always new

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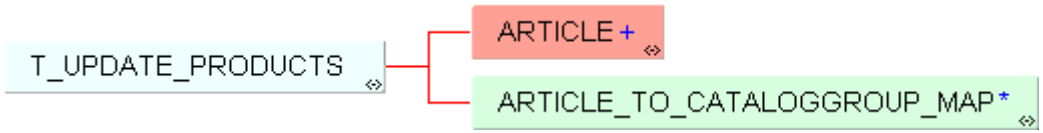
T_UPDATE_PRODUCTS

The T_UPDATE_PRODUCTS transaction transfers article data and, where appropriate, assigns it to a catalog group. The transferred articles are either added to/deleted from the target system or the complete article is replaced. An article identification (see "**mode**" attribute in **ARTICLE (in the context T_UPDATE_PRODUCTS)** indicates whether the article should be added, deleted or modified.

The article is always replaced completely, it is not possible to change individual data fields within an article.

In this transaction, only the transfer of product data and allocation of products to catalog groups is possible.

When using the T_UPDATE_PRODUCTS transaction, the transferred **CATALOG_ID** of the relevant supplier (**SUPPLIER_NAME**) and the **CATALOG_VERSION** to which is belongs must already be present in the target system. The attribute "**prev_version**" must be set to 0 with the first transaction type after **T_NEW_CATALOG** (**T_UPDATE_PRODUCTS**, **T_UPDATE_PRICES**).Thereafter it is increased by 1 with each transaction of this sort.. See also **Example (Interaction of various transactions)**.



General

Used in	Default value	Data type	Lang. specific	Field length
BMECAT			-	

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Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
No. of previous versions	prev_version	Must	Caution: The meaning of the attribute has been altered between BMEcat Version 1.01 and Version 1.2. This attribute consists of the number of previous updates or the number of the transferred updates (not the last version number). Counting begins at 0 after each **T_NEW_CATALOG** within the same version. See also **Example (Interaction of various transactions)**.	-	**INTEGER**	-	5

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Article	**ARTICLE (in the context T_UPDATE_PRODUCTS)**	Must	Multiple	An ARTICLE element consists of all the information on an article. The T_UPDATE_PRODUCTS transaction can contain any number of articles.	-	-	-	-
Assignment of articles to catalog groups	**ARTICLE_TO_CATALOGGROUP_MAP (in the context T_NEW_CATALOG)** 	Can	Multiple	With the element ARTICLE_TO_CATALOGGROUP_MAP an article is assigned to a or removed from a group of the catalog group system (depending on "mode"). The element ARTICLE_TO_CATALOGGROUP_MAP has been added here in Version 1.2 in order to permit newly-transferred articles to be assigned directly to a catalog groups system.	-	-	-	-

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Example:

```
<T_UPDATE_PRODUCTS prev_version="0">
    <ARTICLE mode="new">...</ARTICLE>
    <ARTICLE mode="update">...</ARTICLE>
    <ARTICLE mode="delete">...</ARTICLE>
    <ARTICLE_TO_CATALOGGROUP_MAP mode="new">...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP mode="new">...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP mode="new">...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP mode="delete">...</ARTICLE_TO_CATALOGGROUP_MAP>
    <ARTICLE_TO_CATALOGGROUP_MAP mode="delete">...</ARTICLE_TO_CATALOGGROUP_MAP>
</T_UPDATE_PRODUCTS>
```

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T_UPDATE_PRICES

The T_UPDATE_PRICES transaction transfers new price information on articles to the target system. With the T_UPDATE_PRICES transaction, all prices on the corresponding articles already in the target system are deleted and replaced with the new prices. Essentially, the transaction consists of the elements SUPPLIER_AID and **ARTICLE_PRICE_DETAILS**.

When using the T_UPDATE_PRICES transaction the transferred **CATALOG_ID** of the relevant supplier (**SUPPLIER_NAME**) and the matching **CATALOG_VERSION** must already be present . The attribute "**prev_version**" must be set to 0 with the first transaction type after **T_NEW_CATALOG** (**T_UPDATE_PRODUCTS**, **T_UPDATE_PRICES**). Thereafter it is increased by 1 with each transaction of this sort. See also example (Interaction of various transactions).

General

Used in	Default value	Data type	Lang. specific	Field length
BMECAT	-	-	-	-

Attribute

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Number of previous updates	prev_version *	Must	Caution: The meaning of the attribute has changed between BMEcat Version 1.01 and Version 1.2. This attribute consists of the number of previous updates or the number of the transferred updates (not the last version number). Counting begins at 0 after each **T_NEW_CATALOG** within the same version. See also **Example (Interaction of various transactions)**.	-	**INTEGER**	-	5

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Article	**ARTICLE (in the context T_UPDATE_PRICES)**	Must	Multiple	An ARTICLE element consists of all the information on an article. The transaction T_UPDATE_PRICES may contain only those articles already present in the target system.	-	-	-	-

Example:

```
<T_UPDATE_PRICES prev_version="1">
    <ARTICLE mode="update">...</ARTICLE>
    <ARTICLE mode="update">...</ARTICLE>
    <ARTICLE mode="update">...</ARTICLE>
</T_UPDATE_PRICES>
```

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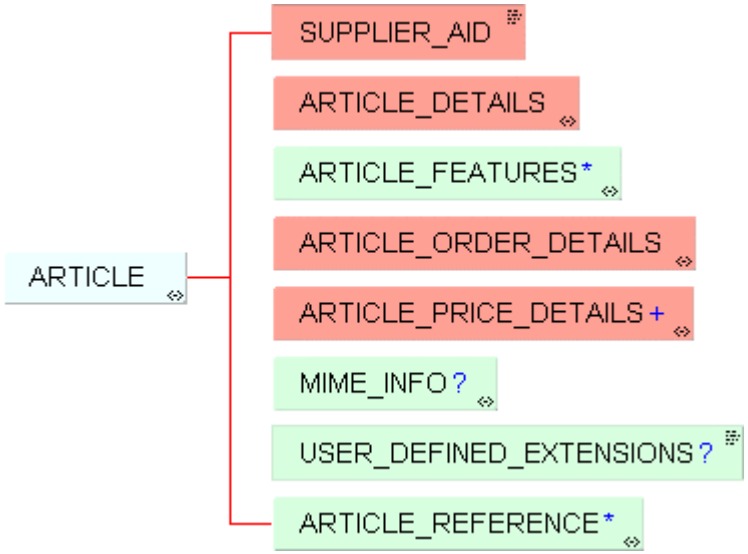
ARTICLE (in the context T_NEW_CATALOG)

The element ARTICLE describes an article. The element ARTICLE consists of the unique article number of the supplier (**SUPPLIER_AID**) as well as further sub-elements containing details of description, price, packaging and additional multi-media information on the article.

It is to be stressed that an article must be described by an unique article number. Where no variations on the article exist (color, size, etc.) the unique article number is the article number of the supplier (**SUPPLIER_AID**). Where there are various article variants, the unique article number is made up of the article number of the supplier (**SUPPLIER_AID**) with matching article number supplement (**SUPPLIER_AID_SUPPLEMENT**). This requirement is a basic requirement for permitting automated order processing. Furthermore, it helps to avoid incorrect deliveries.



General

Used in	Default value	Data type	Lang. specific	Field length
T_NEW_CATALOG	-	-	-	-

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Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Transfer mode	mode	Can	Mode used to import article data into the target system. See also example (Interaction of various transactions).	new	STRING	-	6

List of permitted values for the "mode" attribute (context-specific)

Designation	Attribute value	Explanation
New article	new	In the transaction **T_NEW_CATALOG** the mode can be omitted or must otherwise be new. See also example (Interaction of various transactions). There is no specific definition of how target systems react to a false assignment of the mode. However, the following procedure is recommended: **Transaction** / **Mode** / **Error** / **Reaction** T_NEW_CATALOG / delete / False mode / Error, do not import article T_NEW_CATALOG / update / False mode / Error, doe not import article I.e. If an article with the mode ("**mode**") “delete” or the mode “update” is transferred with the transaction **T_NEW_CATALOG**, this is the incorrect "**mode**" and the article should not be imported.

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Supplier's article ID	SUPPLIER_AID	Must	Single	Supplier's unique article number Where a range of article variants exist (**VARIANTS**), the definitive article number is made up of the unique article number of the supplier (SUPPLIER_AID) with the matching article number supplement of the variant (**SUPPLIER_AID_SUPPLEMENT**) by concatenation. Even when being used for variants, the basic article number, taken on its own, must be unique. Some target systems are unable to accept all 32 characters (e.g. SAP max. 18 characters). It is therefore advisable to keep article identifications as short as possible.	-	**STRING**	-	32
Article details	**ARTICLE_DETAILS**	Must	Single	The **ARTICLE_DETAILS** element consists of data fields that identify an article and describe it in words.	-	-	-	-
Article features	**ARTICLE_FEATURES**	Can	Multiple 	This element is used to classify the article and describe the features and/or the detail the article variants. New in Version 1.2 is the option of indicating a number of **ARTICLE_FEATURES** elements, in order to describe articles in accordance with a variety of classifications.	-	-	-	-
Order details	**ARTICLE_ORDER_DETAILS**	Must	Single	The element **ARTICLE_ORDER_DETAILS** consists of data containing details on ordering and packaging policies of the article.	-	-	-	-
Price details	**ARTICLE_PRICE_DETAILS**	Must	Multiple 	The **ARTICLE_PRICE_DETAILS** element is used to specify price data. New in version 1.2 is the option of detailing a number of **ARTICLE_PRICE_DETAILS** elements, in order to specify prices for various non-overlapping periods.	-	-	-	-
Additional multimedia information	**MIME_INFO**	Can	Single	With the **MIME_INFO** element, references to additional multimedia documents on an article can be specified.	-	-	-	-
User-defined	**USER_DEFINED_EXTENSIONS**	Can	Single	Areas for transferring user's own elements (including hierarchical structures)	-	-	-	-

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Product structures	**ARTICLE_REFERENCE**	Can	Multiple	By using article references, it is possible to refer from one article to another.	-	-	-	-

Example 1:

```
<ARTICLE>
    <SUPPLIER_AID>55-K-31</SUPPLIER_AID>
    <ARTICLE_DETAILS>...</ARTICLE_DETAILS>
    <ARTICLE_FEATURES>...</ARTICLE_FEATURES>
    <ARTICLE_FEATURES>...</ARTICLE_FEATURES>
    <ARTICLE_FEATURES>...</ARTICLE_FEATURES>
    <ARTICLE_ORDER_DETAILS>...</ARTICLE_ORDER_DETAILS>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
    <MIME_INFO>...</MIME_INFO>
    <USER_DEFINED_EXTENSIONS>...</USER_DEFINED_EXTENSIONS>
    <ARTICLE_REFERENCE type="followup">...</ARTICLE_REFERENCE>
    <ARTICLE_REFERENCE type="similar">...</ARTICLE_REFERENCE>
</ARTICLE>
```

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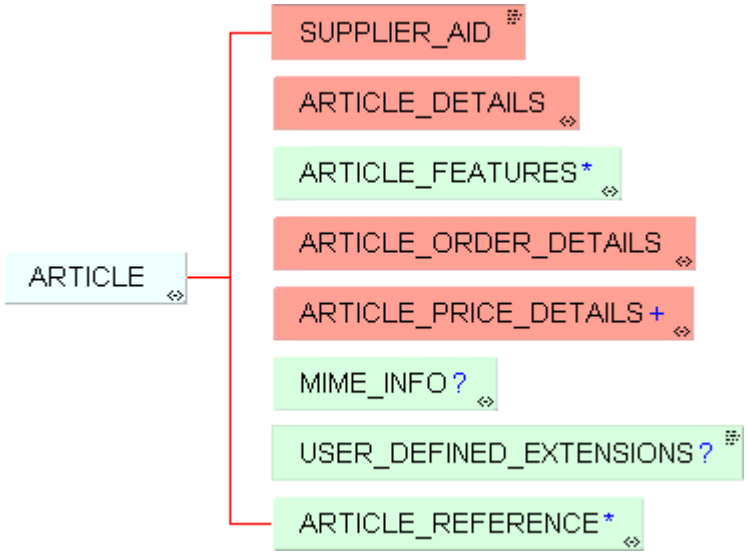
ARTICLE (in the context T_UPDATE_PRODUCTS)

The element ARTICLE describes an article. The element ARTICLE consists of the unique article number of the supplier (**SUPPLIER_AID**) as well as further sub-elements containing details of description, price, packaging and additional multi-media information on the article.

It is to be stressed that an article must be described by an unique article number. Where no variations on the article exist (color, size, etc.) the unique article number is the article number of the supplier (**SUPPLIER_AID**). Where there are various article variants, the unique article number is made up of the article number of the supplier (**SUPPLIER_AID**) with matching article number supplement (**SUPPLIER_AID_SUPPLEMENT**). This requirement is a basic requirement for permitting automated order processing. Furthermore, it helps to avoid incorrect deliveries.



General

Used in	Default value	Data type	Lang. specific	Field length
T_UPDATE_PRODUCTS	-	-	-	-

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Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Transfer mode	mode	Must	Mode used to import article data into the target system. See also **Example (Interaction of various transactions)**.	-	-	-	-

List of permitted values for the "mode" attribute (context-specific)

Designation	Attribute value	Explanation
New article	new	The article does not exist in the target system and is added.
Updated article	update	The article already exists in the target system. The data fields for the article are replaced. This also applies to data fields for the article variants. No modification of individual data fields within an article is possible.
Deleted article	delete	The article is deleted from the target system. All information transferred with the article will be ignored.
		See also **Example (Interaction of various transactions)**. There is no specific definition of how target systems react to a false assignment of the mode. However, the following procedure is recommended:

Transaction	Mode	Error	Reaction
T_UPDATE_PRODUCTS	new	Article exists already	Warning, leave article unaltered in target system
T_UPDATE_PRODUCTS	update	Article does not exist	Warning
T_UPDATE_PRODUCTS	delete	Article does not exist	Warning

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Supplier's article ID	**SUPPLIER_AID**	Must	Single	Supplier's unique article number Where a range of article variants exists, the definitive article number is made up of the unique article number of the supplier, (SUPPLIER_AID) with the matching article number supplement (**SUPPLIER_AID_SUPPLEMENT**) of the variant. Even when being used for variants, the basic article number, taken on its own, must be unique. Some target systems are unable to accept all 32 characters (e.g. SAP max. 18 characters). It is therefore advisable to keep article identifications as short as possible.	-	**STRING**	-	32
Article details	**ARTICLE_DETAILS**	Must	Single	The **ARTICLE_DETAILS** element consists of data fields that identify an article and describe it in words.	-	-	-	-
Article features	**ARTICLE_FEATURES**	Can	Multiple 	This element is used to classify the article and describe the features and/or the detail the article variants. New in version 1.2 is the option of indicating a number of **ARTICLE_FEATURES** elements, in order to describe articles in accordance with a variety of classifications.	-	-	-	-
Order details	**ARTICLE_ORDER_DETAILS**	Must	Single	The element **ARTICLE_ORDER_DETAILS** consists of data containing details on ordering and packaging modalities for the article.	-	-	-	-
Price details	**ARTICLE_PRICE_DETAILS**	Must	Multiple 	The **ARTICLE_PRICE_DETAILS** element is used to specify price data. New in version 1.2 is the option of detailing a number of **ARTICLE_PRICE_DETAILS** elements, in order to specify prices for various non-overlapping periods.	-	-	-	-
Multimedia information	**MIME_INFO**	Can	Single	With the **MIME_INFO** element, references to additional multimedia documents on an article can be specified.	-	-	-	-
User-defined	**USER_DEFINED_EXTENSIONS**	Can	Single	Areas for transferring user's own elements (including hierarchical structures)	-	-	-	-
Product structures	**ARTICLE_REFERENCE**	Can	Multiple	By using article references, it is possible to refer from one article to another.	-	-	-	-

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Example 1:

```
<ARTICLE mode"...">
    <SUPPLIER_AID>55-K-31</SUPPLIER_AID>
    <ARTICLE_DETAILS>...</ARTICLE_DETAILS>
    <ARTICLE_FEATURES>...</ARTICLE_FEATURES>
    <ARTICLE_FEATURES>...</ARTICLE_FEATURES>
    <ARTICLE_FEATURES>...</ARTICLE_FEATURES>
    <ARTICLE_ORDER_DETAILS>...</ARTICLE_ORDER_DETAILS>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
    <MIME_INFO>...</MIME_INFO>
    <USER_DEFINED_EXTENSIONS>...</USER_DEFINED_EXTENSIONS>
    <ARTICLE_REFERENCE type="followup">...</ARTICLE_REFERENCE>
    <ARTICLE_REFERENCE type="similar">...</ARTICLE_REFERENCE>
</ARTICLE>
```

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ARTICLE (in the context T_UPDATE_PRICES)

The element ARTICLE describes an article. The element ARTICLE consists of the unique article number of the supplier (**SUPPLIER_AID**) as well as further sub-elements containing details of description, price, packaging and additional multi-media information on the article.

It is to be stressed that an article must be described by an unique article number. Where no variations on the article exist (color, size, etc.) the unique article number is the article number of the supplier (**SUPPLIER_AID**). Where there are various article variants, the unique article number is made up of the article number of the supplier (**SUPPLIER_AID**) with matching article number supplement (**SUPPLIER_AID_SUPPLEMENT**). This requirement is a basic requirement for permitting automated order processing. Furthermore, it helps to avoid incorrect deliveries.

General

Used in	Default value	Data type	Lang. specific	Field length
T_UPDATE_PRICES	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Transfer mode	mode	Must	Mode used to import article data into the target system. See also **Example (Interaction of various transactions)**.	-	-	-	-

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List of permitted values for the "mode" attribute (context-specific)

Designation	Attribute value	Explanation
Updated article	update	In the transaction T_UPDATE_PRICES the mode can be omitted or must otherwise be new. See also **Example (Interaction of various transactions)**. There is no specific definition of how target systems react to a false assignment of the mode. However, the following procedure is recommended:

Transaction	Mode	Error	Reaction
T_UPDATE_PRICES	update	Article does not exist	Warning
T_UPDATE_PRICES	new	False mode, article exists	Warning, leave article unaltered in target system
T_UPDATE_PRICES	new	False mode, article does not exist	Warning
T_UPDATE_PRICES	delete	False mode	Warning

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Supplier's article identification	SUPPLIER_AID	Must	Single	Supplier's unique article number Where a range of article variants exists, the definitive article number is made up of the unique article number of the supplier (SUPPLIER_AID) with the matching article number supplement of the variant (**SUPPLIER_AID_SUPPLEMENT**) by concatenation. Even when being used for variants, the basic article number, taken on its own, must be unique. Some target systems are unable to accept all 32 characters (e.g. SAP max. 18 characters). It is therefore advisable to keep article identifications as short as possible.	-	STRING	-	32
Price details	**ARTICLE_PRICE_DETAILS**	Must	Multiple 	The **ARTICLE_PRICE_DETAILS** element is used to specify price data. A new feature of the Version 1.2 is the option of detailing a number of **ARTICLE_PRICE_DETAILS** elements, in order to specify prices for various non-overlapping periods.	-	-	-	-

Example 1:

```
<ARTICLE mode"update">
    <SUPPLIER_AID>55-K-31</SUPPLIER_AID>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
    <ARTICLE_PRICE_DETAILS>...</ARTICLE_PRICE_DETAILS>
</ARTICLE>
```

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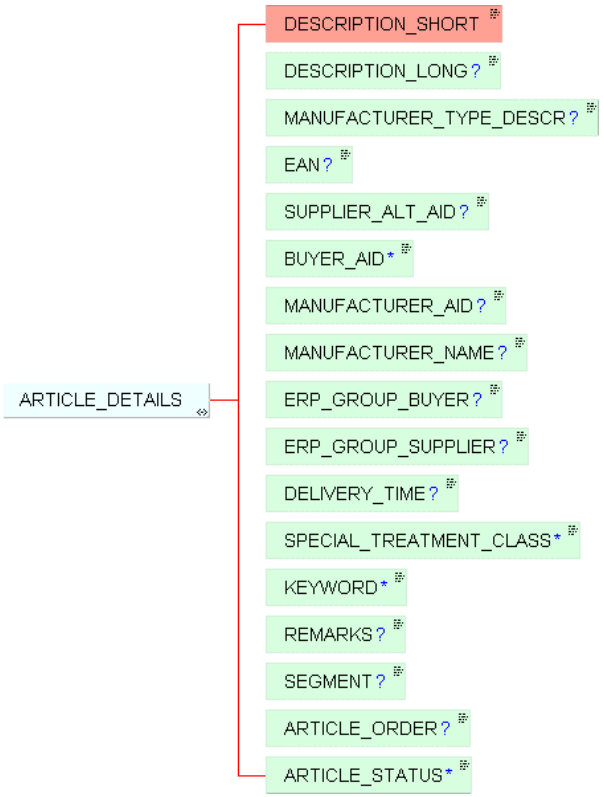
ARTICLE_DETAILS

The ARTICLE_DETAILS element consists of data fields which identify an article and describe it in words.



General

Used in	Default value	Data type	Lang. specific	Field length
ARTICLE (in the context T_NEW_CATALOG), **ARTICLE (in the context T_UPDATE_PRODUCTS)**	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Short description	DESCRIPTION_SHORT	Must	Single	Short description or name of the article	-	**STRING**	Y	80
Long description	DESCRIPTION_LONG	Can	Single	Long description of the article Format: The following HTML tags are supported: <b> for bold, <i> for italic, <p> for paragraphs, for line break and / for lists. In order to transfer these, the characters '>' and '<' must be enclosed in quotation marks, or the BMEcat DTD will not be accepted by the XML parser Example: '<' = < or '>' = > See also “Coding in XML” The target system must support the interpretation of the day in order to achieve the desired formatting.	-	**STRING**	Y	64000
EAN	EAN	Can	Single	European article number (http://www.ean-int.org/)	-	**STRING**	-	14
Alternative article ID	SUPPLIER_ALT_AID	Can	Single	Supplier’s alternative (internal) article identification	-	**STRING**	-	50
Article ID of the buying company	BUYER_AID type=...	Can	Multiple	Article number used by the buying firm. The “type” attribute specifies the type of the buying firm’s ID. See also "**Attributes of BUYER_ID**” With multiple application the values of the attribute “type” must differ	-	**STRING**	-	50
Article ID of the manufacturer	MANUFACTURER_AID	Can	Single	Article identification number of the manufacturer	-	**STRING**	-	50
Name of manufacturer	MANUFACTURER_NAME	Can	Single	Name of the manufacturer	-	**STRING**	-	50

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Manufacturer type description	MANUFACTURER_TYPE_DESCR	Can	Single	The manufacturer's type description is a name for the product which may, in certain circumstances, be more widely-known than the correct article identification. Where a manufacturer's type description is specified, the name of the manufacturer must also be specified (**MANUFACTURER_NAME**). New in Version 1.2.	-	**STRING**	Y	50
ERP product group of the buying firm	ERP_GROUP_BUYER	Can	Single	Specifies the product group or material class of the article in the ERP system (e.g. SAP R/3) of the buying firm. Value range: Depends on buying firm's ERP (**BUYER**)	-	**STRING**	-	10
ERP product group of supplier	ERP_GROUP_SUPPLIER	Can	Single	Product group or material class of the article in the supplier's system	-	**STRING**	-	10
Scheduled delivery time	DELIVERY_TIME	Can	Single	Time in working days needed by the supplier to supply the article The data type has been altered from Version 1.01 to Version 1.2 from **INTEGER** to **NUMBER**, in order to permit half days to be specified. Example: 0.5 = ½ working day	-	**NUMBER**	-	6
Special treatment class	SPECIAL_TREATMENT_CLASS type=...	Can	Multiple	Additional article classification used for hazardous goods or substances, primary pharmaceutical products, radioactive measuring equipment, etc. The "type" attribute specifies the dangerous goods classification scheme. The value indicates the actual class within this scheme (See also **Attributes of SPECIAL_TREATMENT_CLASS**) Example: (Hazardous Goods Order for Road Traffic, heating oil) `<SPECIAL_TREATMENT_CLASS type="GGVS">1201 </SPECIAL_TREATMENT_CLASS>`	-	**STRING**	-	20
Keyword	KEYWORD	Can	Multiple	Keyword which makes the article easier to find. It should also be possible to find the article in the target system by entering this keyword.	-	**STRING**	Y	50
Remarks	REMARKS	Can	Single	Supplier's additional remarks Format: The following HTML tags are supported: <b> for bold, <i> for italic, <p> for paragraphs, for line break and / for lists. In order to transfer these, the characters '>' and '<' must be enclosed in quotation marks, or the BMEcat DTD will not be accepted by the XML parser. See also **Coding in XML**	-	**STRING**	Y	64000

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Segment	SEGMENT	Can	Single	Catalog segment (“generic product group”) to which the article belongs Some catalog compilers use neither classification systems nor catalog group systems but sort their range of goods into segments only. Segments are therefore similar to the upper level of classification systems or catalog group systems. The data type has been altered between Version 1.01 and Version 1.2 from **INTEGER** to **STRING**, in order to permit not only numbers but also names as the segment designator Example: Plumbing supplies, Electrical supplies	-	**STRING**	Y	100
Article order	ARTICLE_ORDER	Can	Single	Order in which the article is to be presented in the target system In list presentation of articles, the articles appear in ascending order (first article corresponds to lowest number). Where all articles in a catalog group are to be presented sorting should comply with ARTICLE_ORDER in accordance with **ARTICLE_TO_CATALOGGROUP_MAP (in the context T_NEW_CATALOG)** or **ARTICLE_TO_CATALOGGROUP_MAP (in the context T_UPDATE_PRODUCTS)**.	-	**INTEGER**	-	-
Special article status	ARTICLE_STATUS type=...	Can	Multiple	The sub-element ARTICLE_STATUS classifies an article in terms of its special characteristics. The status type is specified by the type attribute. The value of the element reflects the text description of the special characteristics. If an article cannot be mapped to any of the predefined status types, "**others**" must be used. User status definitions are not permitted. See also **Attributes of ARTICLE_STATUS** and **List of permitted values for the "type" attribute of the ARTICLE_STATUS element**. It is therefore possible, for example, to identify an article as a special offer or a new product and to comment on it. It is intended that the target system should highlight articles identified in this way (e.g. graphic identification, including in a special catalog rubric or by search-and-find process which support this attribute.). A range of ARTICLE_STATUS types is possible per article. The individual types may not appear more than once, however. The order in which the ARTICLE_STATUS elements appear is irrelevant.	-	**STRING**	Y	250

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Attributes of BUYER_AID

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Type of designator of the buying company	type	Must	Type of designator of the buying company Where multiple applications are used, the values of the type attribute must differ.	-	STRING	-	50

Attributes of SPECIAL_TREATMENT_CLASS

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Name of the special treatment rule	type	Must	Short term for the special treatment regulation, e.g. GGVS (Hazardous Goods Order for Road Traffic) Example: (Hazardous Goods Order, road traffic, heating oil) <SPECIAL_TREATMENT_CLASS type="GGVS">1201 </SPECIAL_TREATMENT_CLASS>	-	STRING	-	50

Attributes of ARTICLE_STATUS

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang. specific	Field length
Type of status	type	Must	Defines the type of special status of the article	-	STRING	-	50

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List of permitted values for the "type" attribute of the ARTICLE_STATUS element

Designation	Attribute value	Explanation
Bargain	Bargain	A bargain is an article offered at a special low price for a limited period of time.
New article	new_article	A new article is an article that has only recently been added to the catalog.
Old article	old_article	An old article is an article which can no longer be purchased but which is still displayed in the catalog, for example in order to refer to the follow-up article. (Compare: **ARTICLE_REFERENCE** in the attribute "**type**", "**followup**" which can be used to define a follow-up product) Caution: Many target systems are at present unable to interpret this status (it should therefore be used subject to consultation with the owner of the target system).
New	new	A new article is an article which has only just been manufactured (i.e. has not been used).
Used	used	An used article is an article which has already been in use.
Refurbished	refurbished	A refurbished article is a used article that has been specially processed in order to restore it to a condition close to its original condition.
Core assortment	core_article	An article which belongs to the core assortment for a particular customer.
Other status	others	This status can be used if non of the predefined statuses adequately describe the article.

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Example:

```
<ARTICLE_DETAILS>
<DESCRIPTION_SHORT>Standard letter tray DIN A4</DESCRIPTION_SHORT>
<DESCRIPTION_LONG>A classic among letter trays.</DESCRIPTION_LONG>
    <EAN>8712670911213</EAN>
    <SUPPLIER_ALT_AID>2334lettertray</SUPPLIER_ALT_AID>
    <BUYER_AID type="BRZNR">K4484</BUYER_AID>
    <BUYER_AID type="KMF">78787</BUYER_AID>
    <MANUFACTURER_AID>123-RD-67-U</MANUFACTURER_AID>
    <MANUFACTURER_NAME>plastic partner</MANUFACTURER_NAME>
    <ERP_GROUP_BUYER>23</ERP_GROUP_BUYER>
    <ERP_GROUP_SUPPLIER>G67-HHH</ERP_GROUP_SUPPLIER>
    <DELIVERY_TIME>0.5</DELIVERY_TIME>
<SPECIAL_TREATMENT_CLASS type="GVVS">none – serves only as an example </SPECIAL_TREATMENT_CLASS>
    <KEYWORD>files</KEYWORD>
    <KEYWORD>stacker</KEYWORD>
<REMARKS>Can be horizontally or alternately stacked.</REMARKS>
    <SEGMENT>organization equipment</SEGMENT>
    <ARTICLE_ORDER>10</ARTICLE_ORDER>
<ARTICLE_STATUS type="bargain">Bargain</ARTICLE_STATUS>
    <ARTICLE_STATUS type="new_article">new in this season</ARTICLE_STATUS>
</ARTICLE_DETAILS>
```

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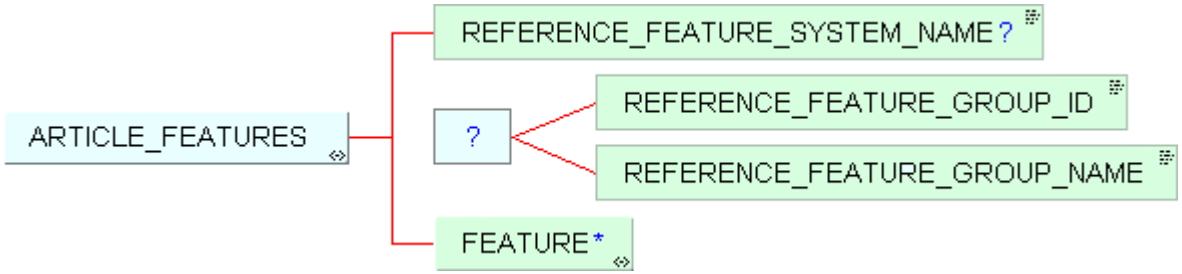
ARTICLE_FEATURES

The ARTICLE_FEATURES element can be used to classify an article, i.e. map it to a group in different classification systems and feature group systems.

One ARTICLE_FEATURES element is created within an individual article element **ARTICLE (in the context T_NEW_CATALOG)**, **ARTICLE (in the context T_UPDATE_PRODUCTS)** for each referred classification or feature group system. It may not happen that for one article a number of context blocks ARTICLE_FEATURES are made with references to the same feature system. I.e. all **REFERENCE_FEATURE_SYSTEM_NAME** elements must be filled in differently for a single article.

Furthermore, features of an article can be specified in the ARTICLE_FEATURES element. Features are data objects with which features of an article, e.g. length or weight, can be described. Some of these features are pre-determined through the referred classification or feature groups system. In this case, the **FEATURE** element will be incorporated in the relevant ARTICLE_FEATURES element of the appropriate classification or feature group system. All features for which no classification or feature group system has been stipulated are listed in a single Article-Features element, which contains no **REFERENCE_FEATURE_SYSTEM_NAME** or **REFERENCE_FEATURE_GROUP_ID** or **REFERENCE_FEATURE_GROUP_NAME**.

Within the ARTICLE_FEATURES element, the features must be named unmistakably, i.e. the feature name **FNAME** must differ for all the elements within the same ARTICLE_FEATURES element. In contrast, the same feature names may be used with different meanings over a number of context blocks in ARTICLE_FEATURES



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General

Used in	Default value	Data type	Lang. specific	Field length
ARTICLE (in the context T_NEW_CATALOG), ARTICLE (in the context T_UPDATE_PRODUCTS)	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Classification or feature group system	REFERENCE_FEATURE_SYSTEM_NAME	Can	Single	Specifies the classification or feature group system used within the ARTICLE_FEATURES element Where the classification or feature group system is not standardized, this can be transferred in the **CLASSIFICATION_SYSTEM** or **FEATURE_SYSTEM** area of the **T_NEW_CATALOG** transaction. Remarks: The standard format for the names of a feature group or classification system (**FEATURE_SYSTEM_NAME** or **CLASSIFICATION_SYSTEM_NAME**) and, consequently, the reference to the feature group or classification system should conform to the format "<Name>-<Major Version>.<Minor Version>". Example: ETIM-1.0, ECLASS-3.0 Pre-defined values for generally used standard classification systems appear in the following table "**List of predefined values for the REFERENCE_FEATURE_SYSTEM_NAME element**".	-	**STRING**	-	50
ID of the referenced group within the classification or feature group system	REFERENCE_FEATURE_GROUP_ID	Can	Single	Specifies the classification of the article within the element through a reference to the ID of an existing group within the previously defined classification/feature group system. This element may only be used when the **REFERENCE_FEATURE_GROUP_NAME** element has not been specified. Remark: The classification group can also be referenced through its unique name (language-specific) (see **REFERENCE_FEATURE_GROUP_NAME**).	-	**STRING**	-	60
or				Either the element **REFERENCE_FEATURE_GROUP_ID** or the element **REFERENCE_FEATURE_GROUP_NAME** can be specified in order to identify the classification group. Both elements may not be specified.				
Unique name of the referenced group within the feature system	REFERENCE_FEATURE_GROUP_NAME	Can	Single	Specifies the classification of the article within the element through a reference to the unique names (language-specific) ID of an existing group within the previously-defined classification/feature group system. This element may only be used when the **REFERENCE_FEATURE_GROUP_ID** element has not been used. Remark: The classification group can also be referenced through its ID (non language specific) (see **REFERENCE_FEATURE_GROUP_ID**).	-	**STRING**	Y	60
Feature of the article	**FEATURE**	Can	Multiple	Specifies an individual feature of the article within the previously defined classification group	-	-	-	-

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List of predefined values for the REFERENCE_FEATURE_SYSTEM_NAME element

Designation	Element value	Explanation
Classification according to eCl@ss	ECLASS-x.y	Classification according to the eCl@ss-Model (compare: http://www.eclass.de/) with precise details of the version Example: ECLASS-3.0
Classification according to ETIM	ETIM-x.y	Classification according to the Elektrotechnisches Informationsmodell (ETIM, see http://www.etim.de/) with precise details of the version Example: ETIM-1.0
Classification according to UNSPSC	UNSPSC-x.y	Classification according to UNSPSC (United Nations Standard Product and Service Code, see http://www.unspsc.org/) with precise details of the version Example: UNSPSC-3.0
User-defined classification or feature group system	udf_ZZZ-x.y	User-defined types for own classification or feature systems may be transferred. These types must have a type designation beginning "udf_". User-defined types may be specified only once per article. Example: udf_MEIER-2.9 It is essential to clarify beforehand whether or not the target systems are able to process the user defined types for feature systems.

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Example:

In this example, a stacking tray is described according to two different classification systems. However, the description according to eCl@ss serves only as an example, i.e. not all requested features are specified.

```
<ARTICLE_FEATURES>
    <REFERENCE_FEATURE_SYSTEM_NAME>udf_MeBuKla-0.97</REFERENCE_FEATURE_SYSTEM_NAME>
    <REFERENCE_FEATURE_GROUP_NAME>Trays</REFERENCE_FEATURE_GROUP_NAME>
    <FEATURE>
        <FNAME>DIN Size</FNAME>
        <FVALUE>A4</FVALUE>
    </FEATURE>
    <FEATURE>
        <FNAME>Material</FNAME>
        <FVALUE>Plastic</FVALUE>
    </FEATURE>
    <FEATURE>
        <FNAME>Color</FNAME>
        <FVALUE>red</FVALUE>
    </FEATURE>
</ARTICLE_FEATURES>
<ARTICLE_FEATURES>
    <REFERENCE_FEATURE_SYSTEM_NAME>eclass-3.0</REFERENCE_FEATURE_SYSTEM_NAME>
    <REFERENCE_FEATURE_GROUP_ID>24-11-03-21</REFERENCE_FEATURE_GROUP_ID>
    <FEATURE>
        <FNAME>Width</FNAME>
        <FVALUE>15</FVALUE>
        <FUNIT>cm</FUNIT>
    </FEATURE>
    <FEATURE>
        <FNAME>Height</FNAME>
        <FVALUE>8</FVALUE>
        <FUNIT>cm</FUNIT>
    </FEATURE>
    <FEATURE>
        <FNAME>Length</FNAME>
        <FVALUE>32</FVALUE>
        <FUNIT>cm</FUNIT>
    </FEATURE>
    <FEATURE>
        <FNAME>Color</FNAME>
        <FVALUE>red</FVALUE>
    </FEATURE>
</ARTICLE_FEATURES>
```

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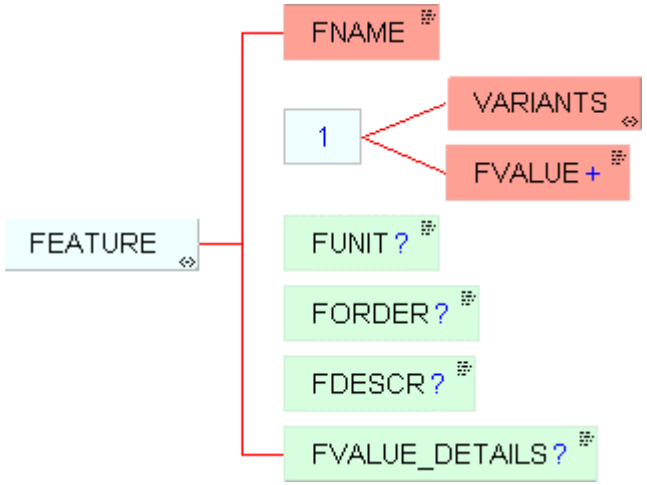
FEATURE

The element FEATURE describes a measurable feature of an article, i.e. the name of the feature and the feature value together with further information about the feature.

Using the **VARIANTS** feature it is also possible to describe variants for this article (including the relevant supplement to the order number).



General

Used in	Default value	Data type	Lang. specific	Field length
ARTICLE_FEATURES	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Simple/ Multiple	Explanation	Default value	Data type	Lang. specific	Field length
Name of the feature	FNAME	Must	Simple	Unique name used to describe the feature within the element **ARTICLE_FEATURES**. If in this element a group was referred to within a classification or feature group system, the feature name must correspond to one of the pre-defined group features. The element **FNAME** is language-specific (and the element **FVALUE**, too, for alpha-numerical feature values), i.e. the feature names for the language specified in the catalog **HEADER** must be transferred. Some classification and feature group systems also have fixed names for individual features and sometimes possible value characteristics (ETIM, for example). In this case, the pre-defined names for the feature and the feature value if applicable must be used. The permitted names and feature values are defined outside BMEcat in the respective classification and feature group systems. BMEcat does allow the description and transfer of such classification and feature group systems, however, using the element **CLASSIFICATION_SYSTEM** within the transactions **T_NEW_CATALOG**. A feature order which already exists, for example a display or search order, can be specified in the relevant classification and feature group systems and then adopted by the target systems at the time of the data import. The transfer order within a BMEcat document is not fixed.	-	**STRING**	Y	60

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Variants	**VARIANTS**	Must	Simple	Designation of the variant This element may only be specified if the element **FVALUE** is not specified. New in Version 1.2.	-	-	-	-
	or			Either the element **VARIANTS** or the element **FVALUE** must be specified. Both elements may not be specified simultaneously, however.				

Feature value	FVALUE	Must	Multiple	Expression(s) of the feature referenced
				This element may only be specified if the element **VARIANTS** is not specified.
				From Version 1.2 onwards, FVALUE can occur as a multiple value, e.g. for describing a value range (Range) or a set of values (Set).
				Examples:
				`<FNAME>Color</FNAME>`
				`<FVALUE>red</FVALUE>`
				
				`<FNAME>Voltage (adjustable from/to)</FNAME>`
				`<FVALUE>6</FVALUE>`
				`<FVALUE>12</FVALUE>`
				`<FUNIT>V</FUNIT>`
				
				`<FNAME>Test mark</FNAME>`
				`<FVALUE>VDE</FVALUE>`
				`<FVALUE>CE</FVALUE>`
				If the element references a standard classification system which also pre-defines possible feature values for (alpha-numerical) features, the feature values must be derived from these pre-defined values.
					-	STRING	Y	60

Feature unit	FUNIT	Can	Single	Unit of measurement of the feature Standard measuring units should be used if possible (refer also to Type **UNIT**). If the element references a standard classification system which also pre-defines feature units for (numerical) features, the entry for the measuring unit in this element must correspond to the one pre-defined or the element can be left empty.	-	**STRING**	-	20

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Feature order	FORDER	Can	Single	Order in which the feature must appear in the referenced classification group in the target system; the order is fixed using ascending integer values If the element references a standard classification system which also pre-defines feature orders for features, the entry for the order in this element must correspond to the one pre-defined or the element can be left empty.	-	**INTEGER**	-	-
Additional feature description	FDESCR	Can	Single	Element which can be used to describe the exact meaning of the feature; the purpose of this element is not to explain the value of the feature in more detail. This element is mainly useful for features within self-defined feature groups and classification systems. Examples: <FNAME>Color</FNAME> <FVALUE>Red</FVALUE> <FDESCR>The feature color specifies the color of the table top and not the color of the table legs</FDESCR>	-	**STRING**	Y	250
Additional details about the feature value	FVALUE_DETAILS	Can	Single	Element which can be used to give more details about the feature value; thus the purpose of this element is to explain the value of the feature in more detail (not the explanation of the feature itself). This element is mainly useful, for example, for transferring manufacturer-specific value descriptions whenever only standard values are permitted as feature values in the given classification system. Example: <FNAME>Color</FNAME> <FVALUE>White</FVALUE> <FVALUE_DETAILS>Polar</FVALUE_DETAILS>	-	**STRING**	Y	250

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Example 1:

Classification of an article according to ETIM-1.0

```
<ARTICLE_FEATURES>
   <REFERENCE_FEATURE_SYSTEM_NAME>ETIM-1.0</REFERENCE_FEATURE_SYSTEM_NAME>
   <REFERENCE_FEATURE_GROUP_NAME>NV Halogen light</REFERENCE_FEATURE_GROUP_NAME>
   <FEATURE>
      <FNAME>Diameter</FNAME>
      <FVALUE>9</FVALUE>
      <FUNIT>mm</FUNIT>
   </FEATURE>
   <FEATURE>
      <FNAME>ZVEI-short description</FNAME>
      <FVALUE>QT-tr 9</FVALUE>
   </FEATURE>
   <FEATURE>
      <FNAME>Length</FNAME>
      <FVALUE>33</FVALUE>
      <FUNIT>mm</FUNIT>
   </FEATURE>
   <FEATURE>
      <FNAME>Life cycle</FNAME>
      <FVALUE>2000</FVALUE>
      <FUNIT>h</FUNIT>
   </FEATURE>
   <FEATURE>
      <FNAME>Color temperature</FNAME>
      <FVALUE>0</FVALUE>
      <FUNIT>K</FUNIT>
   </FEATURE>
   <FEATURE>
      <FNAME>Holder/pedestal</FNAME>
      <FVALUE>G4</FVALUE>
   </FEATURE>
   <FEATURE>
      <FNAME>Version</FNAME>
      <FVALUE>Clear</FVALUE>
      <FVALUE_DETAILS>Special clear</FVALUE_DETAILS>
   </FEATURE>
   <FEATURE>
      <FNAME>Filament shape</FNAME>
      <FVALUE>Axial (vertical)</FVALUE>
   </FEATURE>
   <FEATURE>
      <FNAME>Max capacity</FNAME>
```

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```
      <FVALUE>20</FVALUE>
      <FUNIT>W</FUNIT>
   </FEATURE>
   <FEATURE>
      <FNAME>Supply voltage</FNAME>
      <FVALUE>12</FVALUE>
      <FUNIT>V</FUNIT>
   </FEATURE>
</ARTICLE_FEATURES>
```

Example 2:

User-defined classification

The color and weight of the “Charlie casual shirt” must be described with the aid of FEATURE elements using a customer-specific feature system.

```
<ARTICLE_FEATURES>
   <REFERENCE_FEATURE_SYSTEM_NAME>udf_HeMoMeGu-1.0</REFERENCE_FEATURE_SYSTEM_NAME>
   <REFERENCE_FEATURE_GROUP_ID>123</REFERENCE_FEATURE_GROUP_ID>
   <FEATURE>
      <FNAME>Color</FNAME>
      <FVALUE>Red</FVALUE>
      <FDESCR>
         The color describes the basic tone of the shirt, there could however be appliqués of different colors on the shirt
      </FDESCR>
      <FVALUE_DETAILS>Pink</FVALUE_DETAILS>
   </FEATURE>
   <FEATURE>
      <FNAME>Weight</FNAME>
      <FVALUE>500</FVALUE>
      <FUNIT>g</FUNIT>
   </FEATURE>
</ARTICLE_FEATURES>
```

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Example 3:

This example illustrates the combination of **FVALUE** and **VARIANTS**-elements.

```
<ARTICLE_FEATURES>
   <REFERENCE_FEATURE_SYSTEM_NAME>udf_MeBuKla-0.97</REFERENCE_FEATURE_SYSTEM_NAME>
   <REFERENCE_FEATURE_GROUP_ID>3030</REFERENCE_FEATURE_GROUP_ID>
   <FEATURE>
      <FNAME>Color type</FNAME>
      <FVALUE>Permanent</FVALUE>
      <FORDER>30</FORDER>
   </FEATURE>
   <FEATURE>
      <FNAME>Color</FNAME>
      <VARIANTS>
         <VARIANT>
            <FVALUE>Red</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>006</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Black</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>001</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Blue</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>007</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Green</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>003</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Orange</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>023</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VORDER>1<VORDER>
      </VARIANTS>
      <FORDER>10</FORDER>
   </FEATURE>
   <FEATURE>
      <FNAME>Line width</FNAME>
      <VARIANTS>
         <VARIANT>
            <FVALUE>0.4</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>-SF</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
```

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```
        <VARIANT>
           <FVALUE>0.7</FVALUE>
           <SUPPLIER_AID_SUPPLEMENT>-F</SUPPLIER_AID_SUPPLEMENT>
        </VARIANT>
        <VARIANT>
           <FVALUE>1</FVALUE>
           <SUPPLIER_AID_SUPPLEMENT>-M</SUPPLIER_AID_SUPPLEMENT>
        </VARIANT>
        <VORDER>2<VORDER>
      </VARIANTS>
      <FUNIT>mm</FUNIT>
      <FORDER>20</FORDER>
   </FEATURE>
</ARTICLE_FEATURES>
```

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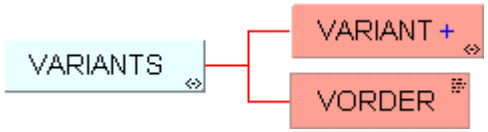
VARIANTS

The element VARIANTS describes variants of the articles. The article variants have no effect on the price of the article. The variants are described using the element **VARIANT**. These variants expand the basic article number (**SUPPLIER_AID**) of the article by one suffix. VARIANTS is used to link together different articles of the same price and with only a few different feature values by expanding the basic article number by a few positions depending on the variant chosen in order to achieve unique identification of the variant.

The basic article number must already be unique when used alone even if it is to be used with variants.



General

Used in	Default value	Data type	Lang-specific	Field length
FEATURE	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Variant	**VARIANT**	Must	Multiple	Designation of the variant (feature value and article number supplement)	-	-	-	-
Order of the variants	VORDER	Must	Single	Defines which order is to be used to link the article number supplement (**SUPPLIER_AID_SUPPLEMENT**) with the basic article number (**SUPPLIER_AID**); the article number expansions are linked to the value VORDER in ascending order	-	**INTEGER**	-	-

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VARIANT

Description of a possible variant using the relevant feature values and the corresponding article number supplement. For a more detailed explanation please refer to the following **Example**.

General

Used in	Default value	Data type	Lang-specific	Field length
VARIANTS	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Value of the feature	FVALUE	Must	Single	Selection value of the variant	-	**STRING**	Y	60
Supplement of the article number	SUPPLIER_AID_SUPPLEMENT	Must	Single	For every selection value within one variant an unique supplement of the basic article number must be transferred. Through the link of all the supplements a further unique number must be created. If there are several **VARIANTS** elements defined for one article, particular care must be taken that the supplements to the article numbers can be clearly separated from the article number resulting from the selection made. This can be achieved, for example, if the supplement is always a fixed length (always 3 figures "003"=black) or by integrating a hyphen ("-red").	-	**STRING**	-	The length of the basic article number + the length of all supplements may not be longer than 32 characters (see field length of **SUPPLIER_AID**)

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Example:

The elements FEATURE and VARIANTS must be used to describe a T-Shirt which is available in four colors and three sizes:

```
<SUPPLIER_AID>33-Ingo-P</SUPPLIER_AID>
   ...
<ARTICLE_FEATURES>
   <FEATURE>
      <FNAME>Color</FNAME>
      <VARIANTS>
         <VARIANT>
            <FVALUE>Red</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>006</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Black</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>001</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Blue</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>004</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>Orange</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>100</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VORDER>1</VORDER>
      </VARIANTS>
      <FORDER>1</FORDER>
      <FDESCR>Color of the T-Shirt</FDESCR>
   </FEATURE>
   <FEATURE>
      <FNAME>Size</FNAME>
      <VARIANTS>
         <VARIANT>
            <FVALUE>S</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>-S</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>L</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>-L</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
         <VARIANT>
            <FVALUE>XL</FVALUE>
            <SUPPLIER_AID_SUPPLEMENT>-XL</SUPPLIER_AID_SUPPLEMENT>
         </VARIANT>
```

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```
        <VORDER>2</VORDER>
      </VARIANTS>
      <FORDER>2</FORDER>
      <FDESCR>Size of the T-Shirt</FDESCR>
   </FEATURE>
</ARTICLE_FEATURES>
```

If these details are used to order a large black shirt this will have the order number "33-Ingo-P001-XL". If the two VORDER values were to be in the reverse order, this would also have an effect on the combined order number. It would then be "33-Ingo-P-XL001".

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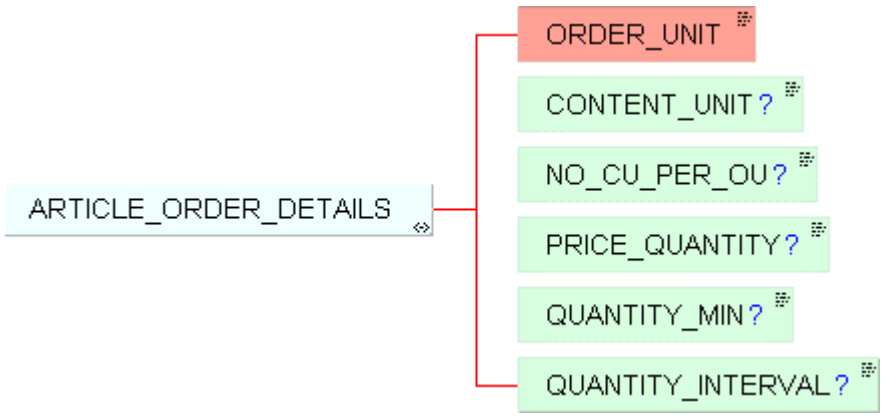
ARTICLE_ORDER_DETAILS

The element ARTICLE_ORDER_DETAILS contains elements which describe the terms and conditions which apply when a particular article is ordered as well as the packing modalities.



General

Used in	Default value	Data type	Lang-specific	Field length
ARTICLE (in the context T_NEW_CATALOG), ARTICLE (in the context T_UPDATE_PRODUCTS)	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Order unit of the article	ORDER_UNIT	Must	Single	Unit in which the article can be ordered; it is only possible to order multiples of the article unit. The price also always refers to this unit (or to part of or multiples of it). Example: Crate of mineral water with 6 bottles Order unit: "crate", contents unit/unit of the article: "bottle" Packing quantity: "6"	-	PUNIT	-	3
Content of the unit	CONTENT_UNIT	Can	Single	Unit of the article within an order unit	-	PUNIT	-	3
Packing quantity	NO_CU_PER_OU	Can	Single	Number of content units per order unit of the article	1	NUMBER	-	-
Price quantity	PRICE_QUANTITY	Can	Single	A multiple or a fraction of the order unit (element **ORDER_UNIT**) which indicates the quantity to which all the specified prices refer. If nothing is specified in this field the default value 1 is assumed, in other words the price refers to exactly one order unit. Example: 10 (i.e. the specified price refers to 10 crates)	1	NUMBER	-	-
Minimum order quantity	QUANTITY_MIN	Can	Single	Minimum number of order units which must be ordered. If nothing is specified in this field the default value 1 is assumed. Example: 5 (i.e. 5 crates)	1	INTEGER	-	-
Quantity interval	QUANTITY_INTERVAL	Can	Single	Number indicating the quantity steps in which the articles can be ordered. The first step always corresponds to the minimum order quantity specified.. The unit of the quantity interval is the same as the order unit. Example: 1 (i.e. 5, 6, 7, ... crates) Example: 2 (i.e. 5, 7, 9, ... crates)	1	INTEGER	-	-

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Example:

Order units and minimum order quantities must be specified for the “Charlie casual shirt”. The shirt can only be ordered in packs ("PK" after data type **PUNIT**) of six ("C62" after data type **PUNIT**) and at least one pack must be ordered.

```
<ARTICLE_ORDER_DETAILS>
   <ORDER_UNIT>PK</ORDER_UNIT>
   <CONTENT_UNIT>C62</CONTENT_UNIT>
   <NO_CU_PER_OU>6</NO_CU_PER_OU>
   <PRICE_QUANTITY>1</PRICE_QUANTITY>
   <QUANTITY_MIN>1</QUANTITY_MIN>
   <QUANTITY_INTERVAL>1</QUANTITY_INTERVAL>
</ARTICLE_ORDER_DETAILS>
```

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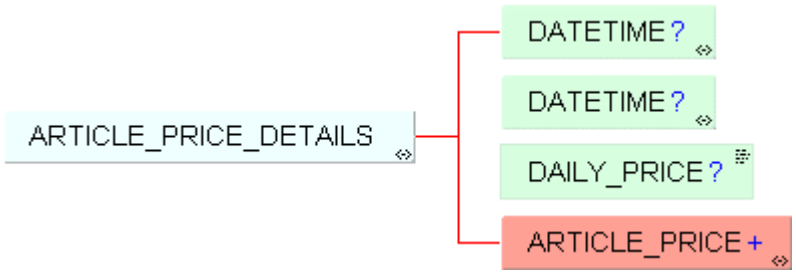
ARTICLE_PRICE_DETAILS

The ARTICLE_PRICE_DETAILS element can be used to specify the price data for an article.

It is possible to specify more than one price for one article. Gross and net prices can be specified for an article, for instance, (with the aid of the "**price_type**" attribute of the **ARTICLE_PRICE** element). It is also possible to reflect the fact that an article has different prices in different countries or regions (using the element **TERRITORY**).

In addition, graduated prices, discounts and validity periods (e.g. for a product that is to be discontinued) can be specified.

New in Version 1.2 is the possibility of specifying several ARTICLE_PRICE_DETAILS elements in order to be able to specify prices for different time periods. Care must be taken that the periods covered by the elements **DATETIME** with the attribute "type" equals " **valid_start_date**" and **DATETIME** with the attribute "type" equals "**valid_end_date**" do not overlap. This guarantees that only one price can be allocated to an article at one point in time. The dates for the periods include the start or end dates ([start date, end date]).



General

Used in	Default value	Data type	Lang-specific	Field length
ARTICLE (in the context T_NEW_CATALOG), ARTICLE (in the context T_UPDATE_PRODUCTS), ARTICLE (in the context T_UPDATE_PRICES)	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Start date	DATETIME type = "valid_start_date"	Can	Single	Date on which the article prices comes into effect. Caution: Some target systems cannot support this element. This can lead to problems (inconsistent ways of dealing with the date).	-	**DATETIME**	-	-
End date	DATETIME type = "valid_end_date"	Can	Single	Date on which the article prices terminate. Caution: Some target systems cannot support this element. This can lead to problems (inconsistent ways of dealing with the date).	-	**DATETIME**	-	-
Daily price flag	DAILY_PRICE	Can	Single	If the value of this field is “true”, the article prices may be subject to considerable daily fluctuations (e.g. additional charges for metals) and must therefore be seen as recommended prices only. The exact prices must then be calculated either using an external system or manually (e.g. by contacting the supplier). If nothing is specified in this field or if “false” is specified, the prices are assumed to be fixed. Caution: Some target systems cannot support this element. This can lead to problems (inconsistent ways of dealing with the date).	FALSE	**BOOLEAN**	-	-
Article price	**ARTICLE_PRICE**	Must	Multiple	Every **ARTICLE_PRICE** element can specify a different price for the article.	-	-	-	-

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Example:

In the example prices are specified for the two periods 2001-01-01 to 2001-07-31 and 2001-08-01 to 2001-12-31. For each period there is both a net customer price and a net list price specified for each article in DM and EUR. The prices are only valid in Germany and the Netherlands.

```
<ARTICLE_PRICE_DETAILS>
   <DATETIME type="valid_start_date">
      <DATE>2001-01-01</DATE>
   </DATETIME>
   <DATETIME type="valid_end_date">
      <DATE>2001-07-31</DATE>
   </DATETIME>
   <ARTICLE_PRICE price_type="net_customer">
      <PRICE_AMOUNT>2.12</PRICE_AMOUNT>
      <PRICE_CURRENCY>DEM</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <PRICE_FACTOR>0.8</PRICE_FACTOR>
      <LOWER_BOUND>1</LOWER_BOUND>
      <TERRITORY>DE</TERRITORY>
      <TERRITORY>NL</TERRITORY>
   </ARTICLE_PRICE>
   <ARTICLE_PRICE price_type="net_customer">
      <PRICE_AMOUNT>1.04</PRICE_AMOUNT>
      <PRICE_CURRENCY>EUR</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <PRICE_FACTOR>.8</PRICE_FACTOR>
      <LOWER_BOUND>1</LOWER_BOUND>
      <TERRITORY>DE</TERRITORY>
      <TERRITORY>NL</TERRITORY>
   </ARTICLE_PRICE>
   <ARTICLE_PRICE price_type="net_list">
      <PRICE_AMOUNT>2.50</PRICE_AMOUNT>
      <PRICE_CURRENCY>DEM</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <LOWER_BOUND>1</LOWER_BOUND>
   </ARTICLE_PRICE>
   <ARTICLE_PRICE price_type="net_list">
      <PRICE_AMOUNT>1.22</PRICE_AMOUNT>
      <PRICE_CURRENCY>EUR</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <LOWER_BOUND>1</LOWER_BOUND>
   </ARTICLE_PRICE>
</ARTICLE_PRICE_DETAILS>
<ARTICLE_PRICE_DETAILS>
   <DATETIME type="valid_start_date">
      <DATE>2001-08-01</DATE>
```

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```
   </DATETIME>
   <DATETIME type="valid_end_date">
      <DATE>2001-12-31</DATE>
   </DATETIME>
   <ARTICLE_PRICE price_type="net_customer">
      <PRICE_AMOUNT>4.24</PRICE_AMOUNT>
      <PRICE_CURRENCY>DEM</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <PRICE_FACTOR>.8</PRICE_FACTOR>
      <LOWER_BOUND>1</LOWER_BOUND>
      <TERRITORY>DE</TERRITORY>
      <TERRITORY>NL</TERRITORY>
   </ARTICLE_PRICE>
   <ARTICLE_PRICE price_type="net_customer">
      <PRICE_AMOUNT>2.08</PRICE_AMOUNT>
      <PRICE_CURRENCY>EUR</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <PRICE_FACTOR>.8</PRICE_FACTOR>
      <LOWER_BOUND>1</LOWER_BOUND>
      <TERRITORY>DE</TERRITORY>
      <TERRITORY>NL</TERRITORY>
   </ARTICLE_PRICE>
   <ARTICLE_PRICE price_type="net_list">
      <PRICE_AMOUNT>5</PRICE_AMOUNT>
      <PRICE_CURRENCY>DEM</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <LOWER_BOUND>1</LOWER_BOUND>
   </ARTICLE_PRICE>
   <ARTICLE_PRICE price_type="net_list">
      <PRICE_AMOUNT>2.44</PRICE_AMOUNT>
      <PRICE_CURRENCY>EUR</PRICE_CURRENCY>
      <TAX>0.16</TAX>
      <LOWER_BOUND>1</LOWER_BOUND>
   </ARTICLE_PRICE>
</ARTICLE_PRICE_DETAILS>
```

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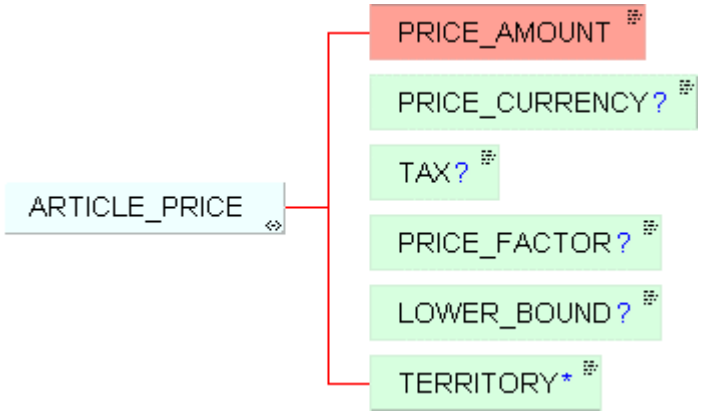
ARTICLE_PRICE

Each ARTICLE_PRICE element can specify a different price for the article. The price depends on the validity period, the type of price, currency, quantity , quantity interval and the valid territory. Every different combination of these values can define a different price.



General

Used in	Default value	Data type	Lang-specific	Field length
ARTICLE_PRICE_DETAILS	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Price type	price_type	Must	Attribute which specifies the type of price. Value range: see following table **List of permitted values for the "price_type" attribute**.	-	**STRING**	-	20

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List of permitted values for the "price_type" attribute

Designation	Attribute value	Explanation
List price	net_list	(Purchasing) list price excluding sales tax
List price	gros_list	(Purchasing) list price including sales tax
Net price	net_customer	Customer-specific end price excluding sales tax
Nonbinding recommended price	nrp	Nonbinding recommended (retail) price
Price for express delivery	net_customer_exp	Customer-specific end price for express delivery excluding sales tax This price type is not clearly defined enough. If it is to be used regardless, the supplier and the customer must clarify the exact meaning of the price and fix it.
User-defined type	udp_XXX	Any other user-defined prices with own price types are allowed to be transferred. These types must then have a type description beginning with "udp". User-defined types are likewise only allowed to be specified once per article. Example: udp_aircargo_price It is essential to clarify beforehand whether or not the target systems are able to process user-defined price types. Furthermore, the exact meaning of the prices must be clarified and fixed between the supplier and the customer.

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Price amount	PRICE_AMOUNT	Must	Single	Amount of the price	-	**NUMBER**	-	-
Price currency	PRICE_CURRENCY	Can	Single	Currency of the price If nothing is specified in this field, the currency defined in the document header (**HEADER**) in the element **CURRENCY** is used for all prices Example: DEM	-	**CURRENCIES**	-	3
Tax rate	TAX	Can	Single	Factor for sales tax applicable to this price. Example: "0.16", corresponds to 16 percent.	-	**NUMBER**	-	-
Price factor	PRICE_FACTOR	Can	Single	The (discount) factor always multiplied by the price specified in this element in order to determine the end price. Caution: Some target systems cannot support this element. This can lead to problems (inconsistent ways of dealing with it.).	1	**NUMBER**	-	-
Lower quantity limit	LOWER_BOUND	Can	Single	Lower quantity limit for graduated prices. The unit for the graduated price limit is the order unit (**ORDER_UNIT**). Note: the upper graduated price limit is determined by the LOWER_BOUND 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. Caution: Some target systems cannot support this element. This can lead to problems (inconsistent ways of dealing with it).	1	**NUMBER**	-	-
Valid territory	**TERRITORY**	Can	Multiple	Region within which the article price is valid. If nothing is specified in this field, the value entered in the **TERRITORY** field in the header is assumed to correspond to the valid territory.	-	**COUNTRIES**	-	6

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Example:

In the example a net customer price is specified in Euro and valid in Germany and the Netherlands.

```
<ARTICLE_PRICE price_type="net_customer">
   <PRICE_AMOUNT>1.04</PRICE_AMOUNT>
   <PRICE_CURRENCY>EUR</PRICE_CURRENCY>
   <TAX>0.16</TAX>
   <PRICE_FACTOR>0.8</PRICE_FACTOR>
   <LOWER_BOUND>1</LOWER_BOUND>
   <TERRITORY>DE</TERRITORY>
   <TERRITORY>NL</TERRITORY>
</ARTICLE_PRICE>
```

Refer also to the **Example** in the element **ARTICLE_PRICE_DETAILS**.

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MIME_INFO

The MIME_INFO element can be used to specify references to additional multimedia documents belonging to a particular article. This makes it possible, for example, to reference photographs or product data sheets of an article at the same time as the catalog data is exchanged.

It is assumed that this additional data is transferred (separately) and that it is imported relative to the directory specified in the **HEADER** as **MIME_ROOT**.

The MIME_INFO element can contain any number of elements with the name **MIME**. Each of these elements represents exactly one reference to an additional document. The definition of the **MIME** element is based on the MIME format (Multipurpose Internet Mail Extensions). The MIME format serves to standardize data transfers over the Internet.

General

Used in	Default value	Data type	Lang-specific	Field length
ARTICLE (in the context T_NEW_CATALOG), ARTICLE (in the context T_UPDATE_PRODUCTS)	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Multimedia document	**MIME**	Must	Multiple	The MIME element serve so transfer information about one multimedia file. The file itself is only referenced and must be transferred separately.	-	-	-	-

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Example:

```
<MIME_INFO>
   <MIME>
      <MIME_TYPE>image/jpeg</MIME_TYPE>
      <MIME_SOURCE>55-K-31.jpg</MIME_SOURCE>
      <MIME_DESCR>Frontal view of the standard DIN A4 letter tray</MIME_DESCR>
      <MIME_ALT>Image of the standard DIN A4 letter tray</MIME_ALT>
      <MIME_PURPOSE>normal</MIME_PURPOSE>
   </MIME>
   <MIME>
      <MIME_TYPE>image/jpeg</MIME_TYPE>
      <MIME_SOURCE>55-K-31k.jpg</MIME_SOURCE>
      <MIME_DESCR>Frontal view of the standard DIN A4 letter tray</MIME_DESCR>
      <MIME_ALT>Image of the standard DIN A4 letter tray</MIME_ALT>
      <MIME_PURPOSE>thumbnail</MIME_PURPOSE>
   </MIME>
   <MIME>
      <MIME_TYPE>application/pdf</MIME_TYPE>
      <MIME_SOURCE>office line 2001.pdf</MIME_SOURCE>
      <MIME_DESCR>Designation of the complete product line office line 2001</MIME_DESCR>
      <MIME_ALT>PDF file for office line 2001</MIME_ALT>
      <MIME_PURPOSE>others</MIME_PURPOSE>
   </MIME>
</MIME_INFO>
```

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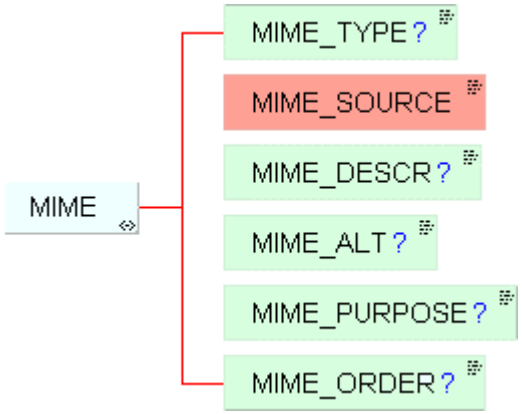
MIME

The MIME element serves to transfer information about one multimedia file. The file itself is only referenced and must be transferred separately.



General

Used in	Default value	Data type	Lang-specific	Field length
MIME_INFO	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Mime type	MIME_TYPE	Can	Single	Type of the additional document; this element is oriented towards the mime type usual in the Internet (ftp://ftp.isi.edu/in-notes/rfc1341.txt) Value range: see "**List of pre-defined values for the MIME_TYPE element**"	-	**STRING**	-	30
Source	MIME_SOURCE	Must	Single	The relative path and the file name or URL address. The MIME_SOURCE string is combined with the base path (**MIME_ROOT**) specified in the **HEADER** (attached to it by means of a simple contecatenation). Sub-directories must be separated by means of slashes ("/") (e.g. /public/document/demo.pdf). Has changed from “Double slashes“ (“//“) in Version 1.01 to "Slashes" ("/") in Version 1.2.	-	**STRING**	Y	250
Designation	MIME_DESCR	Can	Single	Designation of the additional file. This description will be displayed in the target system.	-	**STRING**	Y	250
Alternative text	MIME_ALT	Can	Single	Alternative text used if the file cannot be represented by the browser on the target system, for example.	-	**STRING**	Y	50
Purpose	MIME_PURPOSE	Can	Single	Desired purpose for which the MIME document is to be used in the target system. Value range: refer also to "**List of pre-defined values for the MIME_PURPOSE element**"	-	**STRING**	-	20
Order	MIME_ORDER	Can	Single	Order in which the additional data is to be represented in the target system. When additional documents are listed they should be represented in ascending order (the first document is the one with the lowest number).	-	**INTEGER**	-	-

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List of pre-defined values for the MIME_TYPE element

Designation	Attribute value	Explanation
URL	url	Link to a resource on the Internet (or Intranet); this is not an official Mime type but will be used here anyway. Example: "http://www.bmecat.org"
PDF document	application/pdf	(Local) Acrobat PDF format
JPEG	image/jpeg	(Local) image/graphic in JPEG format
GIF	image/gif	(Local) image/graphic in GIF format
HTML	text/html	(Local) document in HTML format (within the catalog file system)
Text	text/plain	(Local) unformatted text file
...		All Mime types can be used. It cannot be guaranteed, however, that the target systems will be able to represent them.

List of pre-defined values for the MIME_PURPOSE element

Designation	Attribute value	Explanation
Thumbnail view	thumbnail	Preview (small)
Normal view	normal	Normal view (normal size)
Detail view	detail	Enlarged image
Product data sheet	data_sheet	Product data sheet (a technical drawing, for example)
Logo	logo	Product or supplier logo, refer also to the **SUPPLIER** element in the **HEADER**
Others	others	Should none of the other values be suitable, others can be used.

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Example:

References to an image file and a product data sheet belonging to the “Charlie casual shirt” must be transferred at the same time as the product data is being exchanged.

```
<MIME_INFO>
   <MIME>
      <MIME_TYPE>image/jpeg</MIME_TYPE>
      <MIME_SOURCE>charlie.jpg</MIME_SOURCE>
      <MIME_DESCR>Front view of our casual shirt</MIME_DESCR>
      <MIME_ALT>Photo of Charlie</MIME_ALT>
      <MIME_PURPOSE>normal</MIME_PURPOSE>
   </MIME>
   <MIME>
      <MIME_TYPE>application/pdf</MIME_TYPE>
      <MIME_SOURCE>charlie.pdf</MIME_SOURCE>
      <MIME_DESCR>Designation of the production process</MIME_DESCR>
      <MIME_ALT>PDF file belonging to Charlie</MIME_ALT>
      <MIME_PURPOSE>data_sheet</MIME_PURPOSE>
   </MIME>
</MIME_INFO>
```

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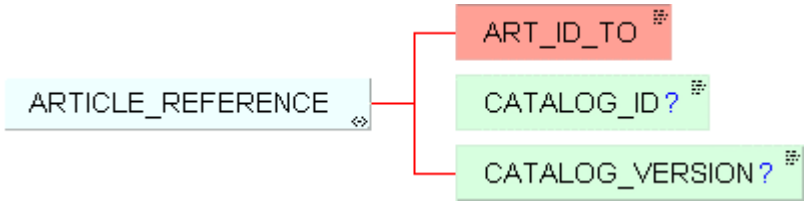
ARTICLE_REFERENCE

Product structures enable articles to reference other articles. These references have a fixed meaning, in other words they define the relationship between the two articles. Such a reference can be, for example, from an article to an associated spare part.

Each article can reference any number of other articles (even articles contained in other product catalogs). The various reference types can be used more than once, so that one main article can refer to a large number of different spare part articles, for example.

The BMEcat standard defines the possible reference types and describes them exactly. Entering user-defined reference types is not allowed. Should a reference type be required which is not adequately described by any of the pre-defined types, the reference type “others” should be specified. These references must not be confused with links to other additional information such as photographs. These links are described in the section **MIME**.

An ARTICLE_REFERENCE element must be entered for each reference from one article (source article) to another (reference article). The order in which the ARTICLE_REFERENCEs are specified is irrelevant.



General

Used in	Default value	Data type	Lang-specific	Field length
ARTICLE (in the context T_NEW_CATALOG), ARTICLE (in the context T_UPDATE_PRODUCTS)	-	-	-	-

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Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Reference type	type	Must	The reference type describes the relationship between the two articles (e.g. article/spare part). A list of the permitted reference types can be found at the end of this table under **List of permitted values for the attribute "type"**.	-	**STRING**	-	20
Quantity	quantity	Can	The attribute “quantity” describes how many articles are being referenced. Use of this attribute is only useful for some reference types, (e.g. "**consists_of**"). If there is nothing entered for the attribute “quantity", the quantity is unspecified or is not important in this context. Refer also to "**Example 3**"	-	**INTEGER**	-	-

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List of permitted values for the attribute "type"

Designation	Attribute value	Explanation
Spare part	sparepart	The reference article listed under ART_ID_TO is a spare part for this source article. A spare part is defined as a part of the article that can be replaced separately within the framework of maintenance and repair activities.
Similar article	similar	The reference article listed under ART_ID_TO is similar to this source article. A similar article is defined as an article which is similar in purpose and functions to the source article and can possibly be used in its place.
Follow-up article	followup	The reference article listed under ART_ID_TO is the follow-up article to this source article. A follow-up article is defined as an article which has the same purpose and functions as the source article and can be considered a more advanced version of it.
Mandatory additional product	mandatory	The reference article listed under ART_ID_TO is a mandatory additional article which must always be ordered at the same time as the source article. The source article described cannot be ordered alone. If several articles are marked "mandatory" they must all be ordered together with the source article.
Selectable mandatory product	select	The reference article listed under ART_ID_TO is a selectable additional article. The described reference article cannot be ordered alone. If several articles are connected by "select" at least one of the additional articles for the source article listed under ART_ID_TO must be ordered.
Alternative packing unit	diff_orderunit	The reference article listed under ART_ID_TO consists of the same basic product as the source article. The source article is available in different packaging, however. Example: Reference from a barrel of beer to a bottle of beer or from a packet of paper to a pallet (containing many packets).
Accessories	accessories	The reference article listed under ART_ID_TO is an accessory product of the source product. An accessory product is considered to extend the functionality of the source article.
Component part	consists_of	The reference article listed under ART_ID_TO is a component part of this source article. This type of reference can be used to build up parts lists. Reference is always made from the parent part to the parts it consists of. In order to reference the number of reference parts contained, the attribute "**quantity**" can be added. Refer also to "**Example 3**"
Other reference type	others	This reference type can be used if none of the other reference types adequately describes the relationship between the reference article and the source article.

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Reference article	ART_ID_TO	Must	Single	This is the unique article number (**SUPPLIER_AID**) of the article which is to be referred to. With variants, the basic article number is used for reference purposes since this must already be unique.	-	**STRING**	-	32
Product catalog of the reference article	CATALOG_ID	Can	Single	If the reference article is not contained in the same product catalog as the source article, the unique catalog designator (**CATALOG_ID**) of the reference article must be entered at this point. If both articles are contained in the same catalog, this field does not have to be transferred. Reference to articles in another product catalog is not recommended at the moment, since there are hardly any target systems known that could currently make these references without any problems.	-	**STRING**	-	20
Version of the product catalog referred to	CATALOG_VERSION 	Can	Single	If the reference article is not included in the same product catalog as the source article, the version of the catalog concerned (**CATALOG_VERSION**) should be entered in addition to the unique catalog marker (**CATALOG_ID**). Reference to articles in another product catalog is not recommended at the moment, since there are hardly any target systems known that could currently make these references without any problems.	-	**STRING**	-	7

Example 1:

“Dennis”, the follow-up model, and “Roger”, a similar model, must be specified for the “Charlie “ casual shirt.

```
<ARTICLE_REFERENCE type="followup">
   <ART_ID_TO>54-Dennis-B</ART_ID_TO>
</ARTICLE_REFERENCE>
<ARTICLE_REFERENCE type="similar">
   <ART_ID_TO>57-Roger-S</ART_ID_TO>
   <CATALOG_ID>4342S-4543-U</CATALOG_ID>
</ARTICLE_REFERENCE>
```

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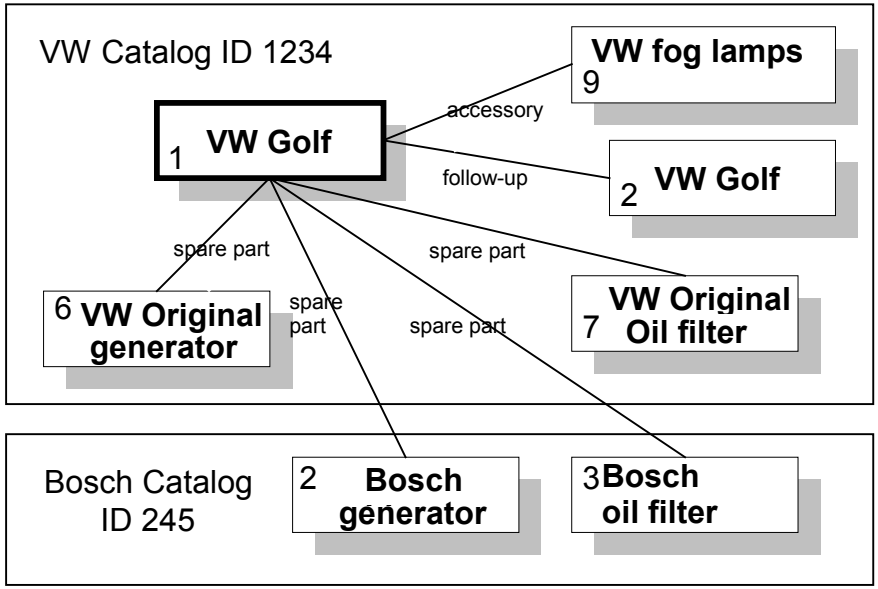
Example 2:

The diagram below shows a more complex example which also serves to demonstrate how articles in another product catalog can be referenced (the use of external references is not recommended at the moment, however). The small boxes stand for various articles in a product catalog (large frame). The numbers inside the boxes show (possible) **SUPPLIER_AID**s. The article inside the box with a thicker edge, "VW Golf II" is the article used to reference other articles. The lines representing the references are labeled with the appropriate reference types.



This example requires the following ARTICLE_REFERENCEs to be entered:

In the article with **SUPPLIER_AID**=1:

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```
<ARTICLE_REFERENCE type="accessories">
   <ART_ID_TO>9</ART_ID_TO>
</ARTICLE_REFERENCE>
<ARTICLE_REFERENCE type="follow-up">
   <ART_ID_TO>2</ART_ID_TO>
</ARTICLE_REFERENCE>
<ARTICLE_REFERENCE type="spare part">
   <ART_ID_TO>7</ART_ID_TO>
</ARTICLE_REFERENCE>
<ARTICLE_REFERENCE type="spare part">
   <ART_ID_TO>6</ART_ID_TO>
</ARTICLE_REFERENCE>
<ARTICLE_REFERENCE type="spare part">
   <ART_ID_TO>2</ART_ID_TO>
   <CATALOG_ID>245</CATALOG_ID>
   <CATALOG_VERSION>010.010</CATALOG_VERSION >
</ARTICLE_REFERENCE>
<ARTICLE_REFERENCE type="spare part">
   <ART_ID_TO>3</ART_ID_TO>
   <CATALOG_ID>245</CATALOG_ID>
   <CATALOG_VERSION>010.010</CATALOG_VERSION >
</ARTICLE_REFERENCE>
```

Example 3:

It must be specified that a table with the **SUPPLIER_AID** "Table 1" consists of one table top with the **SUPPLIER_AID** "Table top 5" and four table legs with the **SUPPLIER_AID** "Leg 7".

```
<ARTICLE>
   <SUPPLIER_AID>Table 1</SUPPLIER_AID>
   ...
   <ARTICLE_REFERENCE type="consists_of" quantity="1">
      <ART_ID_TO>Table top 5</ART_ID_TO>
   </ARTICLE_REFERENCE>
   <ARTICLE_REFERENCE type="consists_of" quantity="4">
      <ART_ID_TO>Leg 7</ART_ID_TO>
   </ARTICLE_REFERENCE>
</ARTICLE>
```

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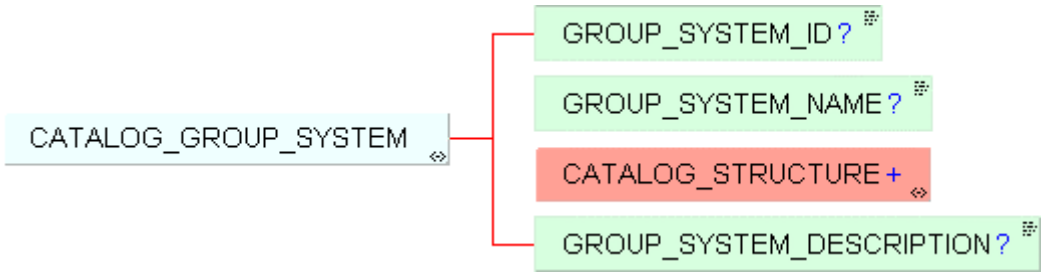
CATALOG_GROUP_SYSTEM

The purpose of catalog group systems is to structure articles hierarchically (e.g. division into chapters in printed catalogs, hierarchical browsing in on-line catalogs). A catalog group system can be constructed from the elements **CATALOG_STRUCTURE** using the element CATALOG_GROUP_SYSTEM. Articles can then be attached to a catalog group (**CATALOG_STRUCTURE**) using the element **ARTICLE_TO_CATALOGGROUP_MAP (in the context T_NEW_CATALOG)** or **ARTICLE_TO_CATALOGGROUP_MAP (in the context T_UPDATE_PRODUCTS).**

Catalog group systems are built starting at the roots and working up to the leaves. The structure is created one layer at a time by defining the required subgroup (subsection) for each catalog group. In BMEcat however, it is not the relevant subgroups which are specified for each catalog group but rather the other way round: the parent group (element **PARENT_ID**) belonging to each catalog subgroup is specified instead. The complete hierarchical catalog group system can be built up in this way.

The order of the **CATALOG_STRUCTURE** elements is irrelevant. Furthermore, not every branch of the catalog group system need necessary hang as low as all the others, i.e. the tree structure does not have to be balanced.



General

Used in	Default value	Data type	Lang-specific	Field length
T_NEW_CATALOG	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Catalog system identification	GROUP_SYSTEM_ID	Can	Single	Identification of the catalog group system The supplier must allocate a unique identification to his catalog group system.	-	**STRING**	-	50
Catalog system name	GROUP_SYSTEM_NAME	Can	Single	Name of the catalog group system	-	**STRING**	Y	50
Catalog structure elements	**CATALOG_STRUCTURE**	Must	Multiple	Designation of the individual catalog groups as specified below.	-	-	-	-
Designation	GROUP_SYSTEM_DESCRIPTION	Can	Single	Designation of the catalog group system	-	**STRING**	Y	250

Example:

```
<CATALOG_GROUP_SYSTEM>
   <GROUP_SYSTEM_ID>KBK-1-99/00</GROUP_SYSTEM_ID>
   <GROUP_SYSTEM_NAME>Office supplies 2001</GROUP_SYSTEM_NAME>
   <CATALOG_STRUCTURE type="root">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="node">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="node">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="leaf">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="leaf">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="leaf">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="leaf">...</CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="leaf">...</CATALOG_STRUCTURE>
   <GROUP_SYSTEM_DESCRIPTION>The office supplies catalog</GROUP_SYSTEM_DESCRIPTION>
</CATALOG_GROUP_SYSTEM>
```

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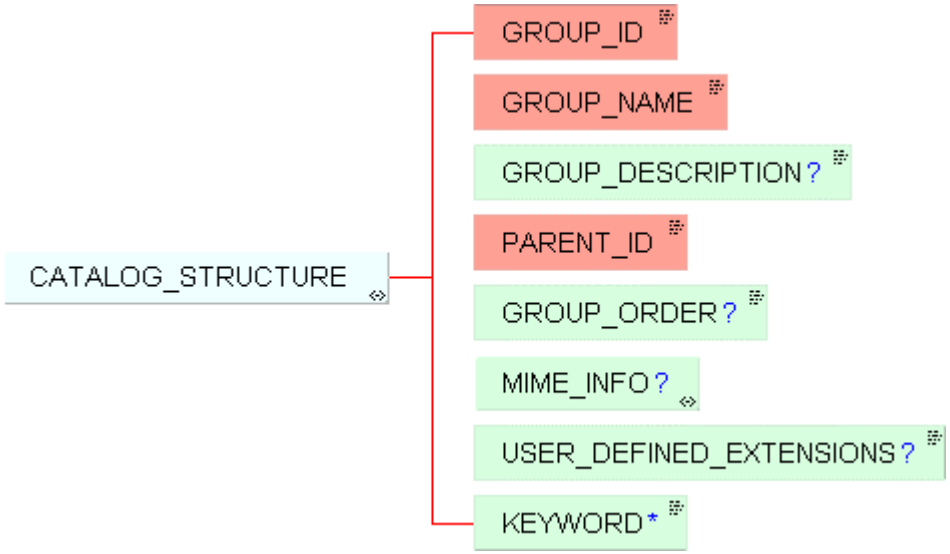
CATALOG_STRUCTURE

A CATALOG_STRUCTURE element serves the purpose of specifying a group within a catalog group system and linking the group into the hierarchical tree. A detailed description can be found under the element **CATALOG_GROUP_SYSTEM**.



General

Used in	Default value	Data type	Lang-specific	Field length
CATALOG_GROUP_SYSTEM	-	-	-	-

Attribute

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Catalog group type	type	Must	The "type" attribute specifies the position of the group within the catalog tree. The topmost group in the catalog structure is the only one on the top level and consequently has no parent. It forms the root from which all the other groups branch off and must therefore be the only CATALOG_STRUCTURE element to have the type "root". All groups with no children (on the bottom level), in other words all groups which are not referenced by any other groups, must have the type "leaf". All other groups, in other words those which have both parents and children, must be defined by the type "node". Please refer also to **List of permitted values for the "type" attribute**	-	**STRING**	-	4

List of permitted values for the "type" attribute

Designation	Attribute value	Explanation
Root	root	The root of a catalog group system; all other groups and subgroups of the catalog group system branch off from this root. The root is only allowed to occur once within each catalog group system
Branch	node	A catalog group which only contains other subgroups and no individual articles
Leaf	leaf	The lowest hierarchical level in a branch of the catalog group system; articles (individual products) are only allowed to be attached to leaves.

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Group number	GROUP_ID	Must	Single	The GROUP_ID is a unique designator which identifies the group. It is used to specify the parent-child relationship and to attach articles to the catalog group. The GROUP_ID in the topmost group (root) is "1". The GROUP_ID of all the other groups is freely selectable, whereby each GROUP_IDs should only be assigned once.	-	**STRING**	-	50
Group name	GROUP_NAME	Must	Single	The name of the catalog group is displayed in the target system and allows users to search for and find the group. The name is usually the generic term for all the other groups and articles below it.	-	**STRING**	Y	50
Group description	GROUP_DESCRIPTION	Can	Single	The description of the catalog group is a short summary of the group to which it refers.	-	**STRING**	Y	250
Parent level	PARENT_ID	Must	Single	The PARENT_ID specifies the **GROUP_ID** of the parent catalog group. The group on the top level (root) represents an exception here because it has no parent. Here 0 must be set.	-	**STRING**	-	50
Catalog group order	GROUP_ORDER	Can	Single	When catalog groups are listed they are always represented in ascending order (the first group is the one with the lowest number).	-	**INTEGER**	-	-
Additional MIME information	**MIME_INFO**	Can	Single	Additional multimedia information (e.g. photographs) can be transferred with this element at the same time as the catalog group.	-	-	-	-
User-defined fields	**USER_DEFINED_EXTENSIONS**	Can	Single	User-defined fields for the group	-	-	-	-
Group keyword	KEYWORD	Can	Multiple	Keyword for the group	-	**STRING**	Y	50

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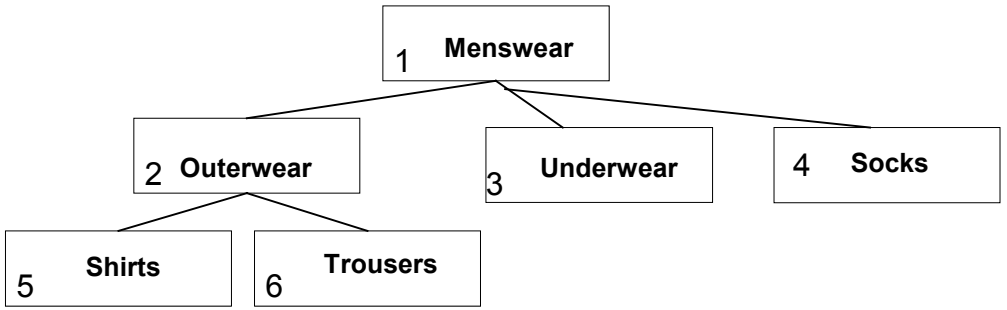
Example:

The following examples shows a catalog structure consisting of three levels. The boxes stand for the groups. The numbers inside the boxes are the **GROUP_ID**s of the groups. The lines represent the parent-child relationships.



The following CATALOG_STRUCTURES must be entered in order to achieve this catalog group system:

```
<CATALOG_GROUP_SYSTEM>
   <GROUP_SYSTEM_ID>KBK-1-99/00</GROUP_SYSTEM_ID>
   <GROUP_SYSTEM_NAME>Men's fashion</GROUP_SYSTEM_NAME>
   <CATALOG_STRUCTURE type="root">
      <GROUP_ID>1</GROUP_ID>
      <GROUP_NAME>Menswear</GROUP_NAME>
      <PARENT_ID>0</PARENT_ID>
   </CATALOG_STRUCTURE>
   <CATALOG_STRUCTURE type="node">
      <GROUP_ID>2</GROUP_ID>
      <GROUP_NAME>Outerwear</GROUP_NAME>
      <GROUP_DESCRIPTION>Topwear fashion for men</GROUP_DESCRIPTION>
      <PARENT_ID>1</PARENT_ID>
      <MIME_INFO>
         <MIME>
            <MIME_TYPE>image/jpeg</MIME_TYPE>
            <MIME_SOURCE>hr_ober.jpg</MIME_SOURCE>
         </MIME>
      </MIME_INFO>
   </CATALOG_STRUCTURE>
```

Start of the “Men’s fashion” catalog group system

The topmost group of a catalog structure always has the type "root," the GROUP_ID "1" and the PARENT_ID "0".

Group number 2 has the type "node" (because it has both a parent and children) and references the topmost group via PARENT_ID "1"

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```
<CATALOG_STRUCTURE type="leaf">
   <GROUP_ID>3</GROUP_ID>
   <GROUP_NAME>Underwear</GROUP_NAME>
   <GROUP_DESCRIPTION>Underwear fashion for men.</GROUP_DESCRIPTION>
   <PARENT_ID>1</PARENT_ID>
   <MIME_INFO>
      <MIME>
         <MIME_TYPE>image/jpeg</MIME_TYPE>
         <MIME_SOURCE>hr_unter.jpg</MIME_SOURCE>
      </MIME>
   </MIME_INFO>
</CATALOG_STRUCTURE>
<CATALOG_STRUCTURE type="leaf">
   <GROUP_ID>4</GROUP_ID>
   <GROUP_NAME>Socks</GROUP_NAME>
   <GROUP_DESCRIPTION>Socks and more</GROUP_DESCRIPTION>
   <PARENT_ID>1</PARENT_ID>
   <MIME_INFO>
      <MIME>
         <MIME_TYPE>image/jpeg</MIME_TYPE>
         <MIME_SOURCE>stink1.jpg</MIME_SOURCE>
      </MIME>
   </MIME_INFO>
</CATALOG_STRUCTURE>
<CATALOG_STRUCTURE type="leaf">
   <GROUP_ID>5</GROUP_ID>
   <GROUP_NAME>Shirts</GROUP_NAME>
   <GROUP_DESCRIPTION>For work and leisure</GROUP_DESCRIPTION>
   <PARENT_ID>2</PARENT_ID>
   <MIME_INFO>
      <MIME>
         <MIME_TYPE>image/jpeg</MIME_TYPE>
         <MIME_SOURCE>charlie_and_dennis.jpg</MIME_SOURCE>
      </MIME>
   </MIME_INFO>
   <USER_DEFINED_EXTENSIONS>
      <UDX.UGE.LEVEL>4</UDX.UGE.LEVEL>
   </USER_DEFINED_EXTENSIONS>
   <KEYWORD>Short-sleeved shirts</KEYWORD>
   <KEYWORD>Beach shirts</KEYWORD>
</CATALOG_STRUCTURE>
<CATALOG_STRUCTURE type="leaf">
   <GROUP_ID>6</GROUP_ID>
   <GROUP_NAME>Trousers</GROUP_NAME>
   <GROUP_DESCRIPTION>For the man about town</GROUP_DESCRIPTION>
   <PARENT_ID>2</PARENT_ID>
```

Groups 3 to 6 have the type "leaf", because they each have a parent but no children. They reference their respective parent groups via the PARENT_ID.

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```
      <MIME_INFO>
         <MIME>
            <MIME_TYPE>image/jpeg</MIME_TYPE>
            <MIME_SOURCE>tote_h.jpg</MIME_SOURCE>
         </MIME>
      </MIME_INFO>
   </CATALOG_STRUCTURE>
</CATALOG_GROUP_SYSTEM
```

End of the catalog structure

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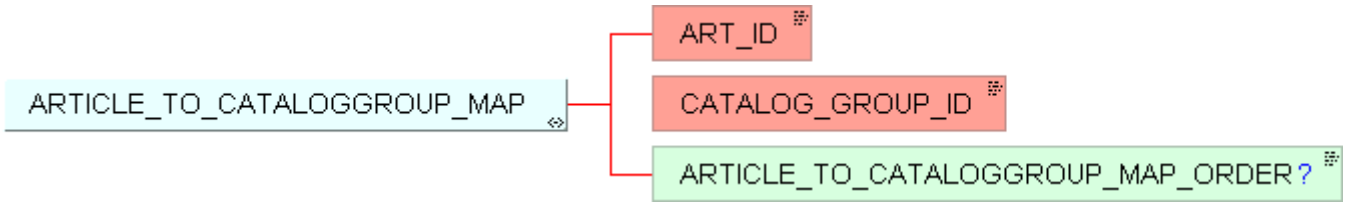
ARTICLE_TO_CATALOGGROUP_MAP (in the context T_NEW_CATALOG)

Once the catalog structure (**CATALOG_GROUP_SYSTEM**) has been built up, articles can be attached to this tree. Articles are only allowed to be attached to the bottommost level, in other words to groups (**CATALOG_STRUCTURE**) with the **type** "leaf". Since articles often cannot clearly be assigned (mapped) to a single group, it is theoretically possible to map an article to several different groups. In this case, however, an ARTICLE_TO_CATALOGGROUP_MAP element must be entered. The order of the ARTICLE_TO_CATALOGGROUP_MAP elements is irrelevant.



General

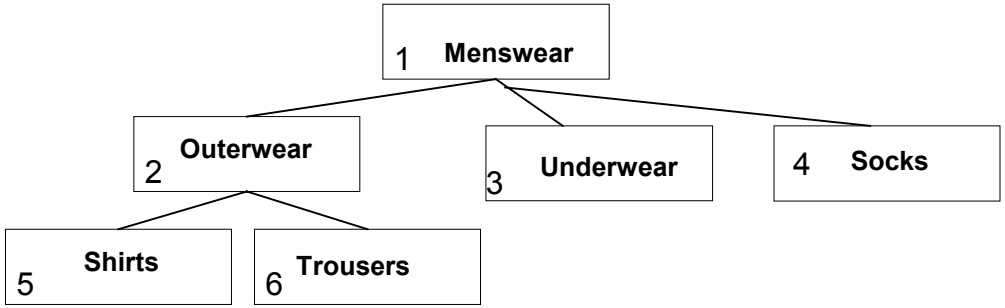
Used in	Default value	Data type	Lang-specific	Field length
T_NEW_CATALOG	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Article number	ART_ID	Must	Single	The ART_ID is the unique number (**SUPPLIER_AID**) of the article to be mapped to the group.	-	**STRING**	-	32
Catalog group	CATALOG_GROUP_ID	Must	Single	The CATALOG_GROUP_ID is the unique identification (**GROUP_ID**) of the catalog group (**CATALOG_STRUCTURE**) to which the article is to be mapped.	-	**STRING**	-	50
Article order	ARTICLE_TO_CATALOGGROUP_MAP_ORDER	Can	Single	Order in which the articles are represented within a catalog group (**CATALOG_STRUCTURE**) in the target system. When the articles are listed they are listed in ascending order (the first article corresponds to the lowest number). If articles from several groups are represented, the articles should be sorted according to **ARTICLE_ORDER** rather than to ARTICLE_TO_CATALOGGROUP_MAP_ORDER.	-	**INTEGER**	-	-

Example:

In this example the articles listed below must be allocated to the catalog structure “Men’s fashion” created in the previous example.



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Article	Article number (SUPPLIER_AID)	Mapped to group
"Charlie" casual shirt	54-Charlie-R	"Shirts" (5)
"Dennis" casual shirt	54-Dennis-B	"Shirts" (5)

The following ARTICLE_TO_CATALOGGROUP_MAP entries are necessary in order to map the articles to the groups as listed above:

```
<ARTICLE_TO_CATALOGGROUP_MAP>
   <ART_ID>54-Charlie-R</ART_ID>
   <CATALOG_GROUP_ID>5</CATALOG_GROUP_ID>
</ARTICLE_TO_CATALOGGROUP_MAP>
<ARTICLE_TO_CATALOGGROUP_MAP>
   <ART_ID>54-Dennis-B</ART_ID>
   <CATALOG_GROUP_ID>5</CATALOG_GROUP_ID>
</ARTICLE_TO_CATALOGGROUP_MAP>
```

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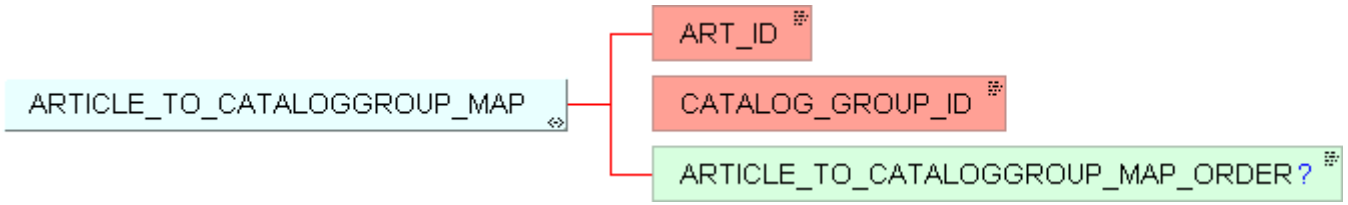
ARTICLE_TO_CATALOGGROUP_MAP (in the context T_UPDATE_PRODUCTS)

The transaction **T_UPDATE_PRODUCTS** makes it possible to integrate new articles in a catalog group system (**CATALOG_GROUP_SYSTEM**) or to change existing assignments of articles to catalog groups (**CATALOG_STRUCTURE**) (delete assignment and add a new one if appropriate, specified by the "**mode**" attribute). There must be an ARTICLE_TO_CATALOGGROUP_MAP element added for every such assignment. The order of the ARTICLE_TO_CATALOGGROUP_MAP elements is irrelevant.



General

Used in	Default value	Data type	Lang-specific	Field length
T_UPDATE_PRODUCTS	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Mode	mode	Must	Indicates whether the element is describing a new assignment or the deletion of an existing assignment. See also **List of permitted values for the "mode" attribute**.	-	STRING	-	6

List of permitted values for the "mode" attribute

Designation	Attribute value	Explanation
Add	new	Assignment of an article to a catalog group is redefined
Delete	delete	the existing assignment is deleted

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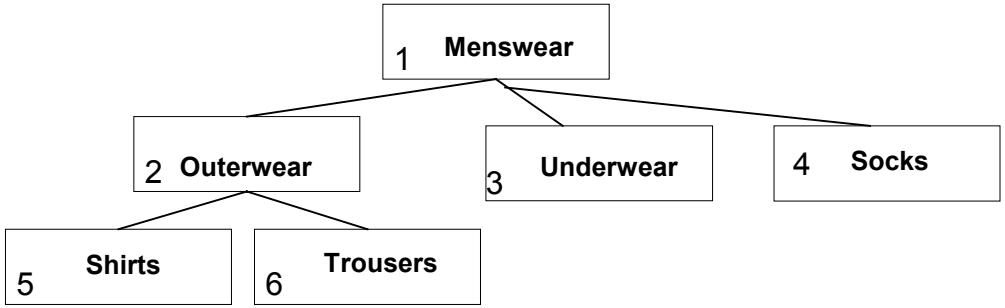
Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Article number	ART_ID	Must	Single	The ART_ID is the unique number (**SUPPLIER_AID**) of the article which is to be assigned to the group.	-	**STRING**	-	32
Catalog group	CATALOG_GROUP_ID	Must	Single	The CATALOG_GROUP_ID indicates the unique identification (**GROUP_ID**) of the catalog group (**CATALOG_STRUCTURE**) to which the article is to be added.	-	**STRING**	-	50
Article order	ARTICLE_TO_CATALOGGROUP_MAP_ORDER	Can	Single	Order in which the articles are represented within a catalog group (**CATALOG_STRUCTURE**) in the target system. When the articles are listed they are listed in ascending order (the first article corresponds to the lowest number). If articles from several groups are represented, the articles should be sorted according to **ARTICLE_ORDER** rather than to ARTICLE_TO_CATALOGGROUP_MAP_ORDER.	-	**INTEGER**	-	-

Example:

In this example, the casual shirt "Charlie" is to be deleted in the catalog group system and the casual shirt "Emil" added as a new article.



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Article	Article number (SUPPLIER_AID)	previous assignment to the group
"Charlie" casual shirt	54-Charlie-R	"shirts" (5)
"Emil" casual shirt	54-Emil-B	-

The following ARTICLE_TO_CATALOGGROUP_MAP entries are necessary in order to map the articles to the groups as listed above:

```
<ARTICLE_TO_CATALOGGROUP_MAP mode="delete">
   <ART_ID>54-Charlie-R</ART_ID>
   <CATALOG_GROUP_ID>5</CATALOG_GROUP_ID>
</ARTICLE_TO_CATALOGGROUP_MAP>
<ARTICLE_TO_CATALOGGROUP_MAP mode="new">
   <ART_ID>54-Emil-B</ART_ID>
   <CATALOG_GROUP_ID>5</CATALOG_GROUP_ID>
</ARTICLE_TO_CATALOGGROUP_MAP>
```

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Feature group systems and classification systems

The articles contained in a product catalog can also be mapped to feature or classification groups within feature group systems or classification group systems in the BMEcat standard (see also **ARTICLE_FEATURES**).

Feature groups or classification groups are used by target systems for example, to facilitate a group-specific search for individual features within a group (for example to search in a scales group for scales with a particular weighing range; or in a software group for software that runs on a particular operating system). A product's membership of a particular group (e.g. computers) can also be used to activate a defined electronic (workflow controlled) licensing procedure (e.g. via the IT department). In the same way, assigning it to the appropriate cost center on the target system would also be possible.

The BMEcat standard is open to all feature group systems or classification systems and has no specific line in this area. The term "feature group system" or "classification system" (such as UNSPSC, ETIM, eCl@ss or a corporate standard) is taken to mean an unique list of feature groups. This system must have an unique name that distinguishes it from other systems. In this case, each article can be assigned (at most) one classification group within each classification group system.

In feature group systems and in some classification systems (e.g. ETIM or eCl@ss) all the articles in one group are described by the same features. This set of features is then also described as a feature template. These fixed features are then given concrete values in the **ARTICLE_FEATURES** element of an article.

If a feature group system or classification system is known to both participants or defined as a standard (e.g. ETIM or eCl@ss), reference can be made to their unique name in the **ARTICLE_FEATURES** section. In this case the feature group system or classification system no longer has to be defined and transferred using BMEcat and can be used immediately in the element **ARTICLE_FEATURES**.

BMEcat Version 1.01 only defined the element **FEATURE_SYSTEM**. Since this led to restrictions in describing and transferring classification systems - e.g. UNSPSC, eCl@ss and ETIM could not be fully described –, BMEcat Version 1.2 defines a new element **CLASSIFICATION_SYSTEM**, which allows the transferal of multi-lingual and hierarchical classification systems including synonyms and complex feature templates with data types and default values. For reasons of backward compatibility from BMEcat Version 1.2 to BMEcat Version 1.01, the element **FEATURE_SYSTEM** was retained in Version 1.2.

This means that feature group systems or classification systems can be described and transferred in BMEcat Version 1.2 using the element **FEATURE_SYSTEM** or the element **CLASSIFICATION_SYSTEM** within a transaction **T_NEW_CATALOG**.

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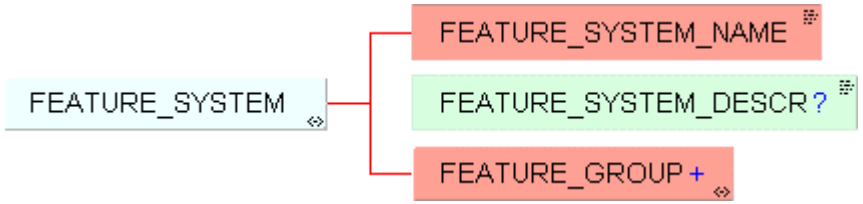
FEATURE_SYSTEM

Note: the definition of feature group systems **FEATURE_SYSTEM** in BMEcat Version 1.2 corresponds to the definition in BMEcat Version 1.01 (apart from the new definition of some lengths of strings which have been adapted to those in **CLASSIFICATION_SYSTEM**).



General

Used in	Default value	Data type	Lang-specific	Field length
T_NEW_CATALOG	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Name of the feature group system	FEATURE_SYSTEM_NAME	Must	Single	The FEATURE_SYSTEM_NAME element describes the feature group system uniquely. The format for the name of a feature group system should follow the pattern "<Name>-<MajorVersion>.<MinorVersion>“. Example: UNSPSC-3.0	-	**STRING**	-	50
Designation of the feature group system	FEATURE_SYSTEM_DESCR	Can	Single	The FEATURE_SYSTEM_DESCR field describes the feature group system.	-	**STRING**	Y	250
Feature groups	**FEATURE_GROUP**	Must	Multiple	Describes the individual groups of the feature group / classification group system	-	-	-	-

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Example:

```
<FEATURE_SYSTEM>
   <FEATURE_SYSTEM_NAME>udf_MeBuKla-0.97</FEATURE_SYSTEM_NAME>
   <FEATURE_SYSTEM_DESCR>Classification system specially developed by ourselves My Office Classification</FEATURE_SYSTEM_DESCR>
   <FEATURE_GROUP>
      <FEATURE_GROUP_ID>1012</FEATURE_GROUP_ID>
      <FEATURE_GROUP_NAME>Files</FEATURE_GROUP_NAME>
      <FEATURE_TEMPLATE type="defaults">
         <FT_NAME>DIN size</FT_NAME>
         <FT_ORDER>10</FT_ORDER>
      </FEATURE_TEMPLATE>
      <FEATURE_TEMPLATE type="free_entry">
         <FT_NAME>Height</FT_NAME>
         <FT_UNIT>cm</FT_UNIT>
         <FT_ORDER>20</FT_ORDER>
      </FEATURE_TEMPLATE>
      <FEATURE_TEMPLATE type="free_entry">
         <FT_NAME>Material</FT_NAME>
         <FT_ORDER>30</FT_ORDER>
      </FEATURE_TEMPLATE>
      <FEATURE_TEMPLATE type="defaults">
         <FT_NAME>Colour</FT_NAME>
         <FT_ORDER>40</FT_ORDER>
      </FEATURE_TEMPLATE>
   </FEATURE_GROUP>
   <FEATURE_GROUP>
      <FEATURE_GROUP_ID>3030</FEATURE_GROUP_ID>
      <FEATURE_GROUP_NAME>Transparency markers</FEATURE_GROUP_NAME>
      <FEATURE_TEMPLATE type="defaults">
         <FT_NAME>Color type</FT_NAME>
         <FT_ORDER>10</FT_ORDER>
      </FEATURE_TEMPLATE>
      <FEATURE_TEMPLATE type="defaults">
         <FT_NAME>Color</FT_NAME>
         <FT_ORDER>20</FT_ORDER>
      </FEATURE_TEMPLATE>
      <FEATURE_TEMPLATE type="defaults">
         <FT_NAME>Line thickness</FT_NAME>
         <FT_UNIT>mm</FT_UNIT>
         <FT_ORDER>30</FT_ORDER>
      </FEATURE_TEMPLATE>
   </FEATURE_GROUP>
   <FEATURE_GROUP>
      <FEATURE_GROUP_ID>3040</FEATURE_GROUP_ID>
      <FEATURE_GROUP_NAME>Transparencies</FEATURE_GROUP_NAME>
```

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```
   </FEATURE_GROUP>
</FEATURE_SYSTEM>
```

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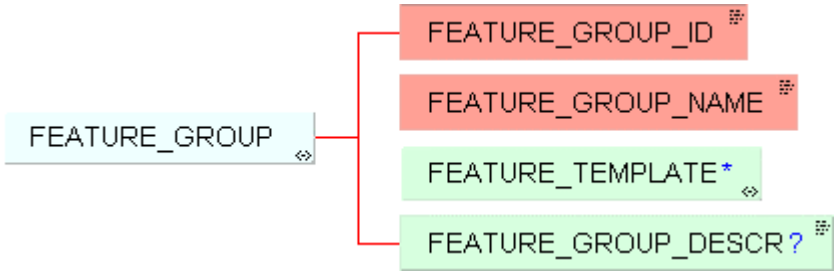
FEATURE_GROUP

The FEATURE_GROUP element describes one feature group and contains a list of the features belonging to the group. Both existing standards and corporate systems can be mapped in this way.



General

Used in	Default value	Data type	Lang-specific	Field length
FEATURE_SYSTEM	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Feature group identification number	FEATURE_GROUP_ID	Must	Single	This element describes a unique (short) designator within the feature group system which enables the feature group to be referenced.	-	**STRING**	-	20
Feature group name	FEATURE_GROUP_NAME	Must	Single	This element describes the unique name of the feature group within the feature group system which enables the feature group to be referenced. The name of the feature group is language-specific whereas the identification number of the feature group must be chosen independent of language.	-	**STRING**	Y	60
List of pre-defined values	**FEATURE_TEMPLATE**	Can	Multiple	Any number of **FEATURE_TEMPLATE**s can be entered within a FEATURE_GROUP element. These describe the features which are characteristic of an article in the group.	-	-	-	-
Feature group description	FEATURE_GROUP_DESCR	Can	Single	Additional description of the feature group	-	**STRING**	Y	250

Example:

See **Example** FEATURE _SYSTEM

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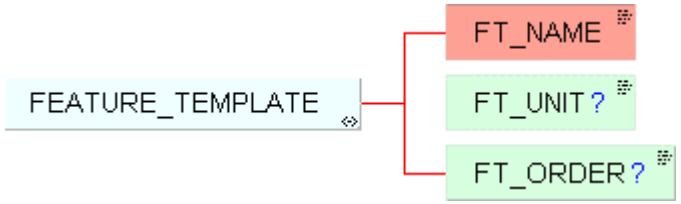
FEATURE_TEMPLATE

Any number of FEATURE_TEMPLATEs can be added to a **FEATURE_GROUP** element. These describe the features which are characteristic of an article in the group.



General

Used in	Default value	Data type	Lang-specific	Field length
FEATURE_GROUP	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Feature type	type	Can	The attribute "type" indicates whether features of any kind can be defined by the user as free text or whether features must be taken from a pre-defined list. A pre-defined list of feature values cannot be transferred using **FEATURE_SYSTEM**. If this is required, **CLASSIFICATION_SYSTEM** must be used. The values given below must be used for "type" (see **List of permitted values for the attribute "type"**). If "type" is not entered, the default "**free_entry**" (free text) is presumed.	free_entry	**STRING**	-	-

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List of permitted values for the attribute “type”

Designation	Attribute value	Explanation
Free entry	free_entry	Any desired manifestations for the feature are possible and specified in text form.
Standard values	defaults	The feature must have one of the values contained in a pre-defined list. This list, however, cannot be described in more detail.

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Feature name	FT_NAME	Must	Single	This element specifies the name of the feature and thus defines the names which can be entered for the articles in the element **ARTICLE_FEATURES** under **FNAME**.	-	**STRING**	Y	60
Feature unit	FT_UNIT	Can	Single	The FT_UNIT describes the unit in which the article features must be specified. The list of units should be based on the **UNIT** type data.	-	**STRING**	-	20
Feature order	FT_ORDER	Can	Single	FT_ORDER allows the order of the features to be defined (in ascending order). The order may reflect the importance of the features for selecting a product, for example. Specific target systems could then display the features in this pre-defined order or search masks could automatically take account of the five most important features.	-	**INTEGER**	-	-

Example:

See **Example** FEATURE _SYSTEM

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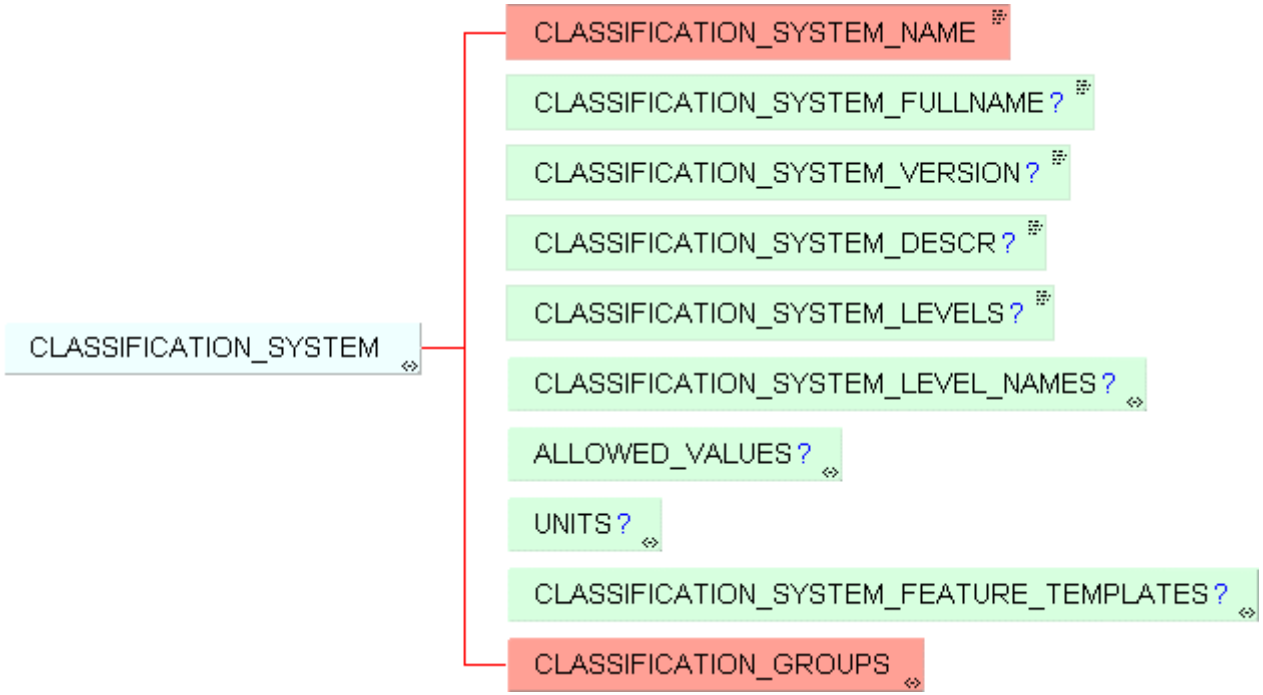
CLASSIFICATION_SYSTEM

Due to the limitations in describing and transferring classification systems within **FEATURE_SYSTEM,** BMEcat Version 1.2 defines a new element **CLASSIFICATION_SYSTEM**, which allows the transfer of multi-lingual and hierarchical classification systems including synonyms and complex feature templates and default values.



General

Used in	Default value	Data type	Lang-specific	Field length
T_NEW_CATALOG	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Name of the classification system	CLASSIFICATION_SYSTEM_NAME	Must	Single	Unique designation of the classification system, this identification must combine the (short) name of the classification system with the version number so that unique referencing of the classification system from the **ARTICLE_FEATURES** element is possible. The format for the identification number should follow the pattern "<Name>-<MajorVersion>.<MinorVersion>". Examples: ETIM-1.0, ECLASS-3.0, UNSPSC-3.0 <CLASSIFICATION_SYSTEM_NAME>ETIM-1.0 </CLASSIFICATION_SYSTEM_NAME> A list of the pre-defined names for standardized classification systems can also be found under "**List of predefined values for the REFERENCE_FEATURE_SYSTEM_NAME element**".	-	**STRING**	-	20
Complete name of the classification system	CLASSIFICATION_SYSTEM_FULLNAME	Can	Single	The CLASSIFICATION_SYSTEM_FULLNAME element serves to transfer the full name of a classification system. Example (ETIM): <CLASSIFICATION_SYSTEM_FULLNAME>Electrotechnical information model</CLASSIFICATION_SYSTEM_FULLNAME>	-	**STRING**	Y	60
Version of the classification system	CLASSIFICATION_SYSTEM_VERSION	Can	Single	Specifies the exact version of the classification system used Example (ETIM): <CLASSIFICATION_SYSTEM_VERSION>1.0 </CLASSIFICATION_SYSTEM_VERSION >	-	**STRING**	-	20
Designation of the feature group system	CLASSIFICATION_SYSTEM_DESCR	Can	Single	The CLASSIFICATION_SYSTEM_DESCR element serves the purpose of defining the classification system in more detail. Example (ETIM): <CLASSIFICATION_SYSTEM_DESCR>Copyright 2000 - ETIM Deutschland e.V. Further information under www.etim.de </CLASSIFICATION_SYSTEM_DESCR>	-	**STRING**	Y	250
Number of hierarchical levels	CLASSIFICATION_SYSTEM_LEVELS	Can	Single	Specifies how many levels designate the classification system Example (ETIM): <CLASSIFICATION_SYSTEM_LEVELS>2</CLASSIFICATION_SYSTEM_LEVELS> Example (eCl@ss): <CLASSIFICATION_SYSTEM_LEVELS>4</CLASSIFICATION_SYSTEM_LEVELS>	-	**INTEGER**	-	-

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Designation of the hierarchical levels	**CLASSIFICATION_SYSTEM_LEVEL_NAMES**	Can	Single	Specifies the names of the hierarchical levels of the classification system	-	-	-	-
Default values used	**ALLOWED_VALUES**	Can	Single	Specifies the possible feature manifestations within the classification system described	-	-	-	-
Measuring units used	**UNITS**	Can	Single	Specifies the measuring units used within the classification system described	-	-	-	-
Features used	**CLASSIFICATION_SYSTEM_FEATURE_TEMPLATES**	Can	Single	Specifies the features used within the described classification system in more detail (name, data type, unit, default value etc.)	-	-	-	-
Classification system groups	**CLASSIFICATION_GROUPS**	Can	Single	Specifies the group of the classification system as well as its hierarchical assignment.	-	-	-	-

Example:

```
<CLASSIFICATION_SYSTEM>
   <CLASSIFICATION_SYSTEM_NAME>ETIM-1.0</CLASSIFICATION_SYSTEM_NAME>
   <CLASSIFICATION_SYSTEM_FULLNAME>Electrotechnical information model</CLASSIFICATION_SYSTEM_FULLNAME>
   <CLASSIFICATION_SYSTEM_VERSION>1.0</CLASSIFICATION_SYSTEM_VERSION>
   <CLASSIFICATION_SYSTEM_DESCR>
      Electrotechnical information model Version 1.0 - developed by e-pro solutions GmbH, Stuttgart (11.11.2000)
      on the instructions of ETIM Deutschland e.V.
   </CLASSIFICATION_SYSTEM_DESCR>
   <CLASSIFICATION_SYSTEM_LEVELS >2</CLASSIFICATION_SYSTEM_LEVELS >
   <CLASSIFICATION_SYSTEM_LEVEL_NAMES>
      <CLASSIFICATION_SYSTEM_LEVEL_NAME level="1">Article group</CLASSIFICATION_SYSTEM_LEVEL_NAME>
      <CLASSIFICATION_SYSTEM_LEVEL_NAME level="2">Article group</CLASSIFICATION_SYSTEM_LEVEL_NAME>
   </CLASSIFICATION_SYSTEM_LEVEL_NAMES>
   ...
</CLASSIFICATION_SYSTEM>
```

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CLASSIFICATION_SYSTEM_LEVEL_NAMES

This element specifies the names of the hierarchy levels within the classification system.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Name of the hierarchy level	CLASSIFICATION_SYSTEM_LEVEL_NAME	Must	Multiple	Here every hierarchy level of the classification system is classified. Example (ETIM): Article group or article class	-	STRING	Y	60

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CLASSIFICATION_SYSTEM_LEVEL_NAME

Here each hierarchy level of the classification system is classified.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM_LEVEL_NAMES	-	STRING	Y	60

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Order of the hierarchy levels of the classification system	level	Must	The hierarchy levels are sorted according to their order in this attribute. The level farthest up the classification system receives the lowest number (beginning with 1).	-	INTEGER	-	-

Example:

(ETIM)

```
<CLASSIFICATION_SYSTEM_LEVEL_NAME level="1">Article group</CLASSIFICATION_SYSTEM_LEVEL_NAME>
<CLASSIFICATION_SYSTEM_LEVEL_NAME level="2">Article class</CLASSIFICATION_SYSTEM_LEVEL_NAME>
```

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ALLOWED_VALUES

The range ALLOWED_VALUES serves to define the values which can be used to fill the fields of the features. It contains any number of **ALLOWED_VALUE** elements which each define one single value.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Designation of an allowed value	**ALLOWED_VALUE**	Must	Multiple	This element serves the purpose of completely describing an allowed value within the classification system.	-	-	-	-

Example:

```
<ALLOWED_VALUES>
  <ALLOWED_VALUE>
    <ALLOWED_VALUE_ID>6922</ALLOWED_VALUE_ID>
    <ALLOWED_VALUE_NAME>Dry Ladyshave</ALLOWED_VALUE_NAME>
  </ALLOWED_VALUE>
  <ALLOWED_VALUE>
    <ALLOWED_VALUE_ID>6923</ALLOWED_VALUE_ID>
    <ALLOWED_VALUE_NAME>Wet-/dry Ladyshave</ALLOWED_VALUE_NAME>
  </ALLOWED_VALUE>
  ...
</ALLOWED_VALUES>
```

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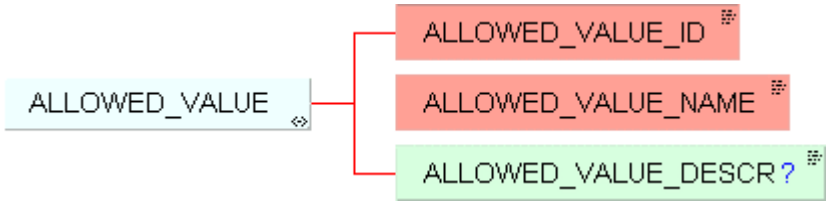
ALLOWED_VALUE

This element serves the purpose of completely describing an allowed value within the classification system.



General

Used in	Default value	Data type	Lang-specific	Field length
ALLOWED_VALUES	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Identification number of the allowed value	ALLOWED_VALUE_ID	Must	Single	Specifies the unique identifying number of the allowed value within the classification system; this identification number is required to describe multi-lingual classification systems as well as to reference the allowed values within the classification groups the **CLASSIFICATION_SYSTEM** element.	-	**STRING**	-	60
Name of the allowed value	ALLOWED_VALUE_NAME	Must	Single	Specifies the unique name of the allowed value within the classification system The name of the allowed value is language-specific, whereas the identification number of the allowed value is not. Example: <ALLOWED_VALUE_NAME>crème white</ALLOWED_VALUE_NAME>	-	**STRING**	Y	60
Additional description of the allowed value	ALLOWED_VALUE_DESCR	Can	Single	This element can be used to describe the allowed value in more detail. Example: <ALLOWED_VALUE_DESCR>crème white corresponds to RAL 9010</ALLOWED_VALUE_DESCR>	-	**STRING**	Y	250

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UNITS

The element UNITS defines units on the basis of which feature values are assigned. It contains any number of **UNIT** elements each of which defines one single unit.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Designation of a measuring unit	**UNIT**	Must	Multiple	Describes a measuring unit used in the classification system The element UNIT must not be confused with the data type **UNIT**.	-	-	-	-

Example:

```
<UNITS>
   <UNIT system="unece">
      <UNIT_ID>C62</UNIT_ID>
      <UNIT_NAME>piece</UNIT_NAME>
      </UNIT>
   <UNIT system="unece">
      <UNIT_ID>INH</UNIT_ID>
      <UNIT_NAME>inch</UNIT_NAME>
      <UNIT_DESCR>corresponds to 2.54 cm</UNIT_DESCR>
   </UNIT>
   ...
</UNITS>
```

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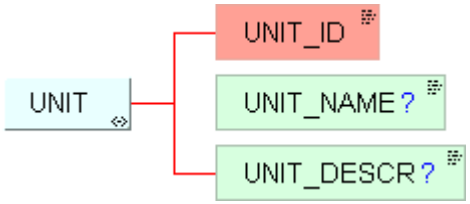
UNIT

This element describes a measuring unit used in the classification system.

Caution: The element UNIT must not be confused with the data type **UNIT**.



General

Used in	Default value	Data type	Lang-specific	Field length
UNITS	-	-	-	-

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Unit system	system	Can	The attribute "system" describes the unit system to which the measuring unit belongs.	-	**STRING**	-	20

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List of permitted values for the attribute "system"

Designation	Attribute value	Explanation
	unece	Units according to UNECE Recommendation 20 (see also http://www.unece.org/cefact/rec/rec20en.htm, see data types **UNIT** and **PUNIT**)
	si	Units according to Système International d'unités (http://www.bipm.fr/enus/3_SI/si.html)

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Identification of the measuring unit	UNIT_ID	Must	Single	Specifies the unique identification of the measuring unit within the classification system; this identification is required for the description of multi-lingual units within a classification system as well as for referencing the measuring units from the classification group. Identification from standard unit systems should be used (e.g. UNECE, SI, see also **List of permitted values for the attribute "system"**). Example: C62 (piece according to UNECE Recommendation 20, http://www.unece.org/cefact/rec/rec20en.htm):	-	**STRING**	-	60
Name of the measuring unit	UNIT_NAME	Can	Single	Specifies the unique name (language-specific) of the measuring unit within the classification system Example (Piece): Piece Stück	-	**STRING**	Y	60
Additional description of the measuring unit	UNIT_DESCR	Can	Single	This element can be used to describe measuring units in more detail.	-	**STRING**	Y	250

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CLASSIFICATION_SYSTEM_FEATURE_TEMPLATES

The element CLASSIFICATION_SYSTEM_FEATURE_TEMPLATES serves the purpose of defining features on the basis of which feature templates for classification groups can be built up.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Designation of a feature	**CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE**	Must	Multiple	Describes a feature independently of its occurrence within a group of the classification system. H Data type, unit, possible allowed values for the feature are specified within the classification group. This is necessary in order to be able to describe classification systems which show features which depend on the context (features which have different specific characteristics in different classification groups).	-	-	-	-

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Example:

```
<CLASSIFICATION_SYSTEM_FEATURE_TEMPLATES>
   <CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE>
      <FT_ID>13</FT_ID>
      <FT_NAME>Version</FT_NAME>
   </CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE>
   <CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE>
      <FT_ID>1300</FT_ID>
      <FT_NAME>Type of suspension</FT_NAME>
   </CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE>
   ...
</CLASSIFICATION_SYSTEM_FEATURE_TEMPLATES>
```

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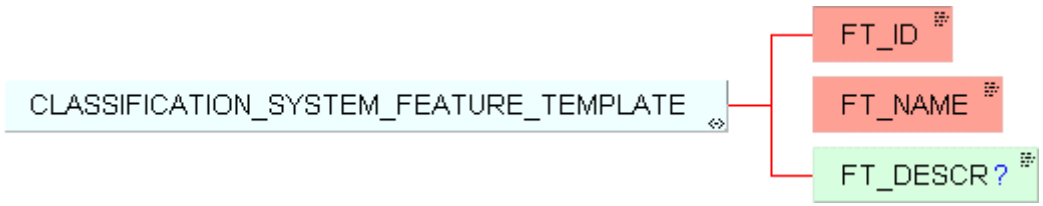
CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE

This element describes a feature independently of its occurrence within a group of the classification system. Data type, unit, possible allowed values for the feature are specified within the classification group.



General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM_FEATURE_TEMPLATES	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Identification of the feature	FT_ID	Must	Single	Unique identification of a feature; this identification is required to describe features within multi-lingual classification systems and for referencing from classification groups	-	STRING	-	60
Name of the feature	FT_NAME	Must	Single	Specifies the name of the feature within the classification system Example: <FT_NAME>Color</FT_NAME>	-	STRING	Y	60
Additional description of the feature	FT_DESCR	Can	Single	This element can be used to describe the feature in more detail. Example: <FT_DESCR>Color of the housing</FT_DESCR>	-	STRING	Y	250

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CLASSIFICATION_GROUPS

The element CLASSIFICATION_GROUPS serves to define classification groups and their feature templates.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_SYSTEM	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Group within the classification system	**CLASSIFICATION_GROUP**	Must	Multiple	Describes a group including its features within the classification system	-	-	-	-

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Example:

```
<CLASSIFICATION_GROUPS>
   ...
   <CLASSIFICATION_GROUP level="2" type="leaf">
      <CLASSIFICATION_GROUP_ID>1458</CLASSIFICATION_GROUP_ID>
      <CLASSIFICATION_GROUP_NAME>Shaver</CLASSIFICATION_GROUP_NAME>
      <CLASSIFICATION_GROUP_SYNONYMS>
         <SYNONYM>Men's shaver</SYNONYM>
         <SYNONYM>Electric shaver</SYNONYM>
         <SYNONYM>Lady Style shaver</SYNONYM>
         <SYNONYM>Wet / dry shaver</SYNONYM>
         <SYNONYM>Battery / electric shaver</SYNONYM>
         <SYNONYM>Vario-shaver</SYNONYM>
         <SYNONYM>Ladies'shaver</SYNONYM>
         <SYNONYM>Shaver</SYNONYM>
         <SYNONYM>Ladyshave</SYNONYM>
         <SYNONYM>Dry shaver</SYNONYM>
      </CLASSIFICATION_GROUP_SYNONYMS>
      <CLASSIFICATION_GROUP_FEATURE_TEMPLATES>
         <GROUP_FEATURE_TEMPLATE>
            <FT_IDREF>13</FT_IDREF>
            <FT_MANDATORY>true</FT_MANDATORY>
            <FT_DATATYPE>alphanumeric</FT_DATATYPE>
            <FT_ORDER>5</FT_ORDER>
            <FT_ALLOWED_VALUES>
               <ALLOWED_VALUE_IDREF order="1">16020</ALLOWED_VALUE_IDREF>
               <ALLOWED_VALUE_IDREF order="2">51315</ALLOWED_VALUE_IDREF>
               <ALLOWED_VALUE_IDREF order="3">6917</ALLOWED_VALUE_IDREF>
               <ALLOWED_VALUE_IDREF order="4">6921</ALLOWED_VALUE_IDREF>
               <ALLOWED_VALUE_IDREF order="5">6922</ALLOWED_VALUE_IDREF>
            </FT_ALLOWED_VALUES>
         </GROUP_FEATURE_TEMPLATE>
         <GROUP_FEATURE_TEMPLATE>
            <FT_IDREF>1625</FT_IDREF>
            <FT_MANDATORY>true</FT_MANDATORY>
            <FT_DATATYPE>integer</FT_DATATYPE>
            <FT_UNIT>C62</FT_UNIT>
            <FT_ORDER>15</FT_ORDER>
         </GROUP_FEATURE_TEMPLATE>
      </CLASSIFICATION_GROUP_FEATURE_TEMPLATES>
      <CLASSIFICATION_GROUP_PARENT_ID>112</CLASSIFICATION_GROUP_PARENT_ID>
   </CLASSIFICATION_GROUP>
   ...
<CLASSIFICATION_GROUPS>
```

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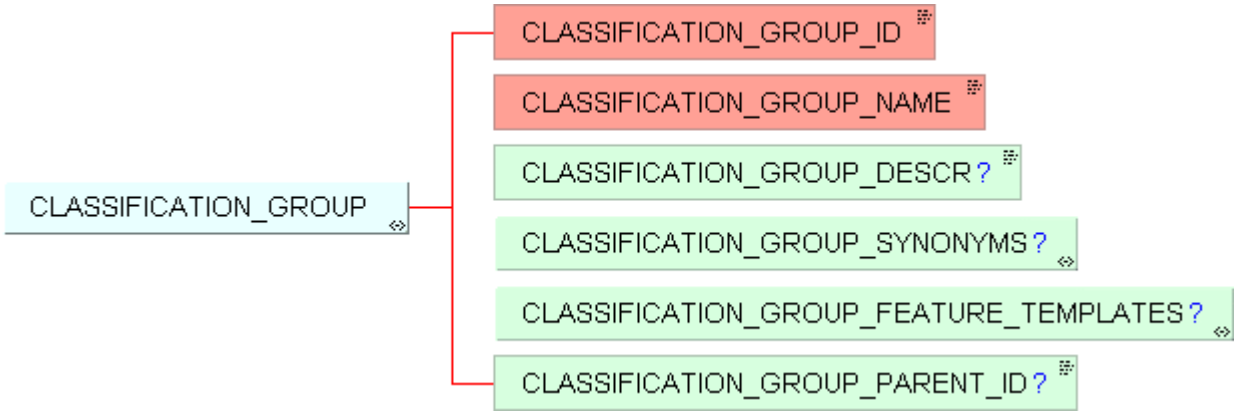
CLASSIFICATION_GROUP

The element CLASSIFICATION_GROUP describes a group including their features within the classification system.



General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_GROUPS	-	-	-	-

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Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Type of classification group	type	Must	The attribute "type" specifies whether the classification group is on the lowest level of the classification system. Value range see **List of permitted values for the "type" attribute**; refer also to the attribute "**type**" of the element **CATALOG_STRUCTURE**	-	**STRING**	-	4
Hierarchy level of a classification group	level	Can	The attribute "level" specifies the hierarchy level of the classification group as an integer.	-	**INTEGER**	-	-

List of permitted values for the "type" attribute

Designation	Attribute value	Explanation
Branch	node	A group or subgroup of the classification which does not contain individual articles but only other subgroups.
Leaf	leaf	A group on the lowest level of the classification; articles (individual products) may only be assigned to such groups.

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Identification of the group	CLASSIFICATION_GROUP_ID	Must	Single	Unique identification of the group; this identification is required to describe groups within multi-lingual classification systems	-	**STRING**	-	60
Name of the group	CLASSIFICATION_GROUP_NAME	Must	Single	Specifies the unique name of the group within the classification system The name of a classification group is language-specific, the identification is not. Example: <CLASSIFICATION_GROUP_NAME > NV halogen lamp </CLASSIFICATION_GROUP_NAME >	-	**STRING**	Y	60
Additional description of the group	CLASSIFICATION_GROUP_DESCR	Can	Single	This element can be used to describe the group within a classification system in more detail. Example: <CLASSIFICATION_GROUP_DESCR> Halogen lamps up to 12 V </CLASSIFICATION_GROUP_DESCR>	-	**STRING**	Y	250
Synonyms of the group	**CLASSIFICATION_GROUP_SYNONYMS**	Can	Single	Describes the synonyms of the group within the classification system.	-	-	-	-
Features of the group	**CLASSIFICATION_GROUP_FEATURE_TEMPLATES**	Can	Single	Describes the group-dependent characteristics of a group within the classification group.	-	-	-	-
Reference to the parent group of the group described	CLASSIFICATION_GROUP_PARENT_ID	Can	Single	The element references the unique identification of the parent group (**CLASSIFICATION_GROUP_ID**). If there is no parent group for the group, this element must not be specified.	-	**STRING**	-	60

Example:

see **Example** for the **CLASSIFICATION_GROUPS** element

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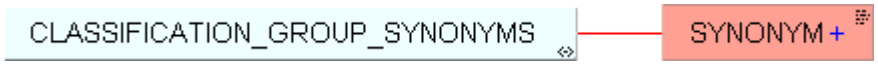
CLASSIFICATION_GROUP_SYNONYMS

The element CLASSIFICATION_GROUP_SYNONYMS describes the synonyms of the classification group within a classification system.



General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_GROUP	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Synonym for a classification group	SYNONYM	Must	Multiple	Synonym of a classification group	-	STRING	Y	60

Example:

see **Example** for the **CLASSIFICATION_GROUPS** element

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CLASSIFICATION_GROUP_FEATURE_TEMPLATES

The element CLASSIFICATION_GROUP_FEATURE_TEMPLATES serves to define feature templates within classification groups.

General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_GROUP	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Group-dependent description of feature	CLASSIFICATION_GROUP_FEATURE_TEMPLATE	Must	Multiple	Definition of a feature within the feature template of the classification group.	-	-	-	-

Example:

see **Example** for the **CLASSIFICATION_GROUPS** element

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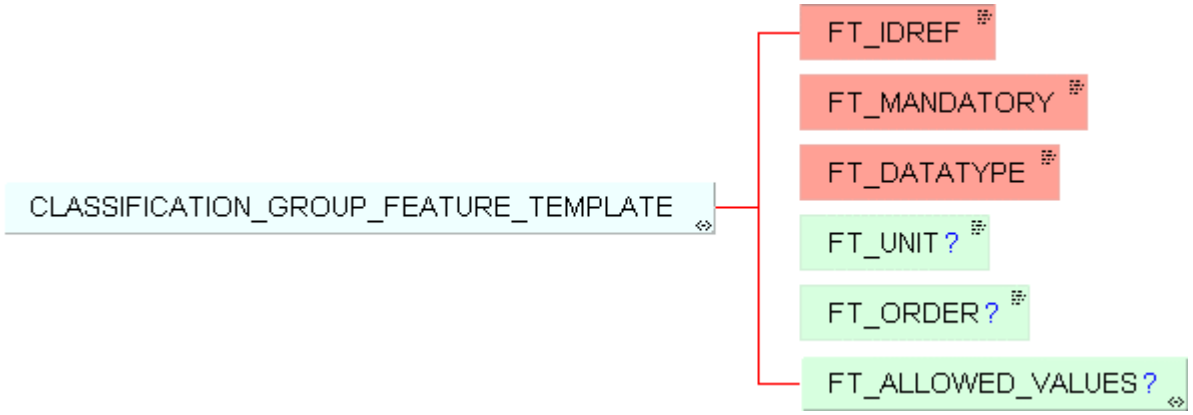
CLASSIFICATION_GROUP_FEATURE_TEMPLATE

The element CLASSIFICATION_GROUP_FEATURE_TEMPLATE serves to define a feature within the feature template of the classification group.



General

Used in	Default value	Data type	Lang-specific	Field length
CLASSIFICATION_GROUP_FEATURE_TEMPLATES	-	-	-	-

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Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
Reference to the feature to be described in more detail	FT_IDREF	Must	Single	Reference to the unique identification of a feature (see **CLASSIFICATION_SYSTEM_FEATURE_TEMPLATE**)	-	**STRING**	-	60
Marker, whether the feature is mandatory	FT_MANDATORY	Must	Single	This element specifies whether the feature is mandatory within the feature template of the classification group (value = "true"), in other words whether it must be specified for the classification of an article using the **ARTICLE_FEATURES** element.	-	**BOOLEAN**	-	-
Data type of the feature	FT_DATATYPE	Must	Single	This element describes the data type of the feature. The feature values (**FVALUE**) of an article in the element **ARTICLE_FEATURES** must correspond to the data types specified here. See also "**List of recommended values for the FT_DATATYPE element**"	-	**STRING**	-	20
Measuring unit of the feature	FT_UNIT	Can	Single	This element describes the measuring unit of the feature within the feature template or references the identification of a measuring unit (see **UNIT_ID** in the **UNIT** element).	-	**STRING**	-	60
Order of the features within the feature template	FT_ORDER	Can	Single	This element describes the order in which the features must be displayed within the feature template in a target system (in ascending order).	-	**INTEGER**	-	-
Allowed values for the feature	**FT_ALLOWED_VALUES**	Can	Single	List of the allowed values for the possible feature values within the feature template.	-	-	-	-

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List of recommended values for the FT_DATATYPE element

Designation	Attribute value (case insensitive)	Explanation
Alphanumeric	Alphanumeric	Alphanumeric chain of characters, see also data type **STRING**
Alphanumeric	String	see **Alphanumeric**
Number	Numeric	Number, see also data type **NUMBER**
Number	Number	see **Numeric**
Integer	Integer	Integer, see also data type **INTEGER**
Yes/no value	Logic	"true"/"false", see data type **BOOLEAN**
Yes/no value	Boolean	see **Logic**
Numeric range value	Range-Numeric	Range value given by 2 numeric values (see also **Example** under **FEATURE**)
Integer range value	Range-Integer	Range value given by integer values (see also **Example** under **FEATURE**)
Set of alphanumeric values	Set-Alphanumeric	Set of alphanumeric values (see also **Example** under **FEATURE**)
Set of numeric values	Set-Numeric	Set of numeric values (see also **Example** under **FEATURE**)
Set of integer values	Set-Integer	Set of integer values (see also **Example** under **FEATURE**)

A different possibility of specifying format can be taken from IEC Standard 1369-1:1995.

Example:

see **Example** for the **CLASSIFICATION_GROUPS** element

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FT_ALLOWED_VALUES

The element FT_ALLOWED_VALUES defines the list of the allowed values for the possible feature values within the feature template.

General

Used in	Default value	Data type	Lang-specific	Field length
FT_ALLOWED_VALUES	-	-	-	-

Elements

Designation	Element name	Must/ Can	Single/ Multiple	Explanation	Default value	Data type	Lang-specific	Field length
References an allowed value	**ALLOWED_VALUE_IDREF**	Must	Multiple	References the allowed value from the value list of the classification system specified by the **ALLOWED_VALUES** element.	-	**STRING**	-	60

Example:

see **Example** for the **CLASSIFICATION_GROUPS** element

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ALLOWED_VALUE_IDREF

The element references an allowed value from the value list of the classification system specified by the ALLOWED_VALUES element.

General

Used in	Default value	Data type	Lang-specific	Field length
FT_ALLOWED_VALUES	-	STRING	-	60

Attributes

Designation	Attribute name	Must/ Can	Explanation	Default value	Data type	Lang-specific	Field length
Order of the allowed values within the feature	order	Can	This attribute specifies the order in which a target system must list the allowed values within the corresponding feature of the feature template (in ascending order).	-	INTEGER	-	-

Example:

see **Example** for the **CLASSIFICATION_GROUPS** element

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