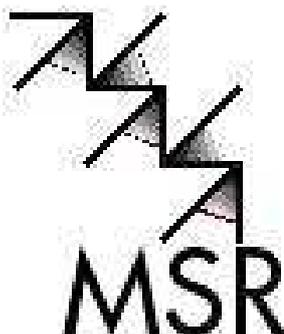




MSR-MEDOC

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Container Catalog XML Model Specification



MSR MEDOC, Herbert Klein (XI-Works)



Abstract

In case of joint engineering efforts it is necessary to synchronize the engineering data bases. This structure specifies a container and in particular the meta data used for such an exchange.



Table of Contents

	Table of Contents	3
	Introduction	6
1	Introduction	8
2	General approach to the Catalog	9
3	Example Scenarios	11
3.1	Incremental data exchange	12
3.2	Using the catalog for transmitting a revision history	13
3.3	Usage of the ABLOCK attribute UPD in a sample scenario	13
3.3.1	The UPD attribute of the ABLOCK	14
3.3.2	Step1: Initial Exchange	15
3.3.3	Step2: Without air condition (performance reasons...)	17
3.3.4	Step2: Without air condition - Incremental exchange	19
3.3.5	Step3: air condition again, but remove the radio	22
3.3.6	Step3: air condition again, incremental	23
3.3.7	Step4a: Rearrange the components	25
3.3.8	Step4b: same as 4a, but with an updated SteeringWheel ABLOCK	27
4	Elemente der CATALOG DTD	30
4.1	ABLOCK	30
4.2	ADDRESS	33
4.3	ADMIN-DATA	33
4.4	AREF	34
4.5	AREF-MOVED	37
4.6	BR	40
4.7	CATALOG	41
4.8	CATEGORY	42
4.9	CHANGE	43
4.10	CITY	44
4.11	COMMENT	45
4.12	COMPANIES	45
4.13	COMPANY	46
4.14	COMPANY-DOC-INFO	49
4.15	COMPANY-DOC-INFOS	50
4.16	COMPANY-REF	51
4.17	COMPANY-REVISION-INFO	53
4.18	COMPANY-REVISION-INFOS	53
4.19	DATE	54
4.20	DATE-1	55



4.21	DEPARTMENT	55
4.22	DESC	56
4.23	DOC-LABEL	57
4.24	DOC-REVISION	58
4.25	DOC-REVISIONS	59
4.26	DOMAIN	59
4.27	E	60
4.28	EMAIL	61
4.29	FAX	62
4.30	FILE	62
4.31	FORMATTER-CTRL	63
4.32	FORMATTER-CTRLS	64
4.33	FT	65
4.34	HOMEPAGE	65
4.35	IE	66
4.36	ISSUED-BY	67
4.37	LABEL	67
4.38	LANGUAGE	68
4.39	LONG-NAME	69
4.40	LONG-NAME-1	70
4.41	MATCHING-DCI	71
4.42	MATCHING-DCIS	72
4.43	MODIFICATION	72
4.44	MODIFICATIONS	73
4.45	MSR-QUERY-ARG	74
4.46	MSR-QUERY-NAME	75
4.47	MSR-QUERY-PROPS	75
4.48	MSR-QUERY-RESULT-TEXT	76
4.49	MSR-QUERY-TEXT	77
4.50	NOTATION	78
4.51	NUMBER	79
4.52	OWNER	80
4.53	P	80
4.54	PHONE	82
4.55	POSITION	82
4.56	PUBLISHER	83
4.57	REASON	83
4.58	REMARK	84
4.59	REVISION-LABEL	85
4.60	REVISION-LABEL-P1	86
4.61	REVISION-LABEL-P2	86
4.62	ROLE	87
4.63	ROLES	88
4.64	SD	89



4.65	SDG	90
4.66	SDG-CAPTION	91
4.67	SDGS	92
4.68	SHORT-LABEL	93
4.69	SHORT-NAME	93
4.70	STATE	94
4.71	STATE-1	95
4.72	STD	95
4.73	SUB	97
4.74	SUBTITLE	98
4.75	SUP	98
4.76	TEAM-MEMBER	99
4.77	TEAM-MEMBER-REF	101
4.78	TEAM-MEMBERS	103
4.79	TOOL	104
4.80	TOOL-VERSION	104
4.81	TT	105
4.82	URL	106
4.83	USABLE-FOR-VARIANT	107
4.84	USABLE-FOR-VARIANTS	108
4.85	USED-LANGUAGES	108
4.86	V	109
4.87	VERBATIM	110
4.88	XDOC	111
4.89	XFILE	113
4.90	XREF	115
4.91	XREF-TARGET	118
4.92	ZIP	119
	Document Administration	121
	References	123
	Index	124
	Technical Terms	126

Introduction

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Version Information

Document Part	Editor			
	Company	Version	State	Remarks
6 Release 2003-11-03 For details refer to nr. 1, Page 122	Herbert Klein (XI-Works)			

1 Introduction

This document describes the container catalog which is part of a generic approach for exchange of engineering data and its configuration. The container comprises of

- Engineering objects such as source codes, documentation, compiled objects etc.
- Meta information about the exchanged object such as creator, name, version info and configuration.

The catalog as described in the following sections is inspired by the *RDF* (Resource Data Framework) as published by the World Wide Web Consortium. RDF describes thing by making statements about it. These statements, called "assertions" are the basic mechanisms of the catalog.

The statements are given in **<ABLOCK>** which itself comprises of meta data and the "things" itself resp. a pointer to a file containing the "things".

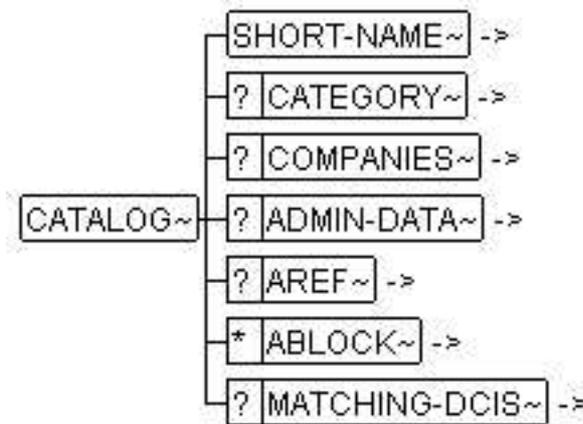
Like RDF, the catalog is an application of *XML* as described by the *world wide web consortium* (www.w3c.org).

This document describes in general the container *catalog dtd*. The dtd provides a meta data scheme. It is expected, that the reader is informed about XML.

The particular application of this scheme must be documented separately.

2 General approach to the Catalog

In general, the catalog is setup by the following items:



catalog.png

Figure 1: Overall structure of the catalog

<CATALOG> This is the root of the catalog. As of XML a valid resp. a well formed document must have one and only one root element.

<SHORT-NAME> This is the name of the catalog. It can be used for reference purposes.

<CATEGORY> This defines the particular usecase of the catalog.

<COMPANIES> This is the definition of the companies and persons which are involved in the data exchange.

<ABLOCK> This is the **assertion block** about one particular "work item" or exchange item. This item can either be a file, a set of special data fields(<SDG>s), or a specific configuration which comprises of <AREF>. <SDG> (special data group) is a generic structure allowing to transmit any kind of property field.

Caution:

The primary identification of an <ABLOCK> is the <SHORT-NAME> in conjunction with <CATEGORY>, and the version attributes [VAR], [REV] and [LABEL] as well as <DOMAIN> which must be unique within <CATALOG>. This reflects to the fact that a work item in an engineering process may have a particular role in the process (denoted by <CATEGORY>) and a name.

For ease of processing in XML-tools catalog also supports the identification by [ID].

<AREF> This is used to establish a relationship between configuration items and particular exchange items. As an example, a program kit is setup as a set of particular files. This fact is expressed within the <ABLOCK> describing the program by referencing (via <AREF>) the <ABLOCK> representing the particular files.

Caution:

Note that this reference can be expressed using XML's ID/IDREF or by using [CATEGORY], and the version attributes [VAR], [REV] and [LABEL] as well as [DOMAIN] or both. If both mechanisms are used, then they must be in sync.



<ADMIN-DATA> This structure receives the administrative data like revision information or language definition of the catalog.

For further details refer to the element and attributes documentation in [Chapter 4 Elemente der CATALOG DTD p. 30](#).

3 Example Scenarios

This chapter describes possible application of the catalog. As mentioned earlier the base principle is that catalog keeps meta data about a set of files which is exchanged between an OEM and its supplier as shown in [Figure 2 Example Data Exchange p. 11](#).

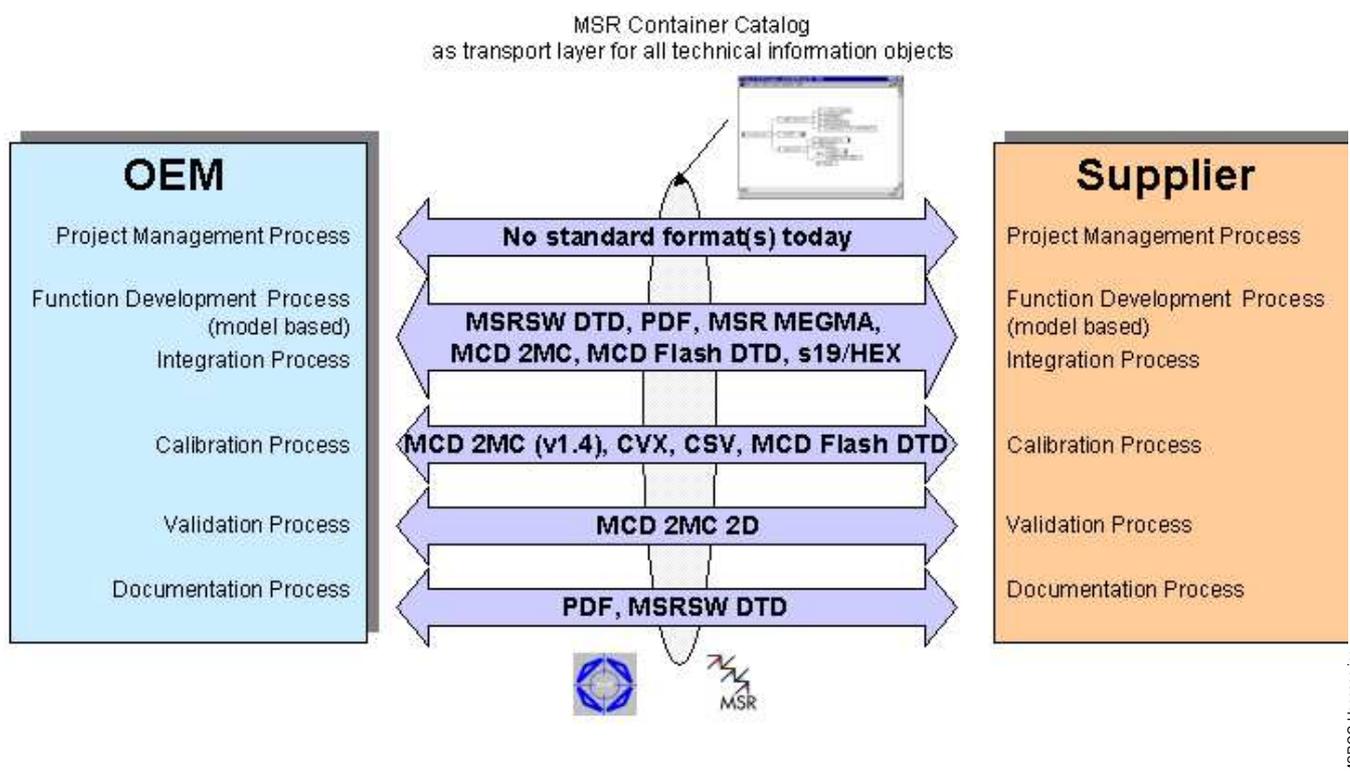


Figure 2: Example Data Exchange

The figure below shows an example for the import export process.

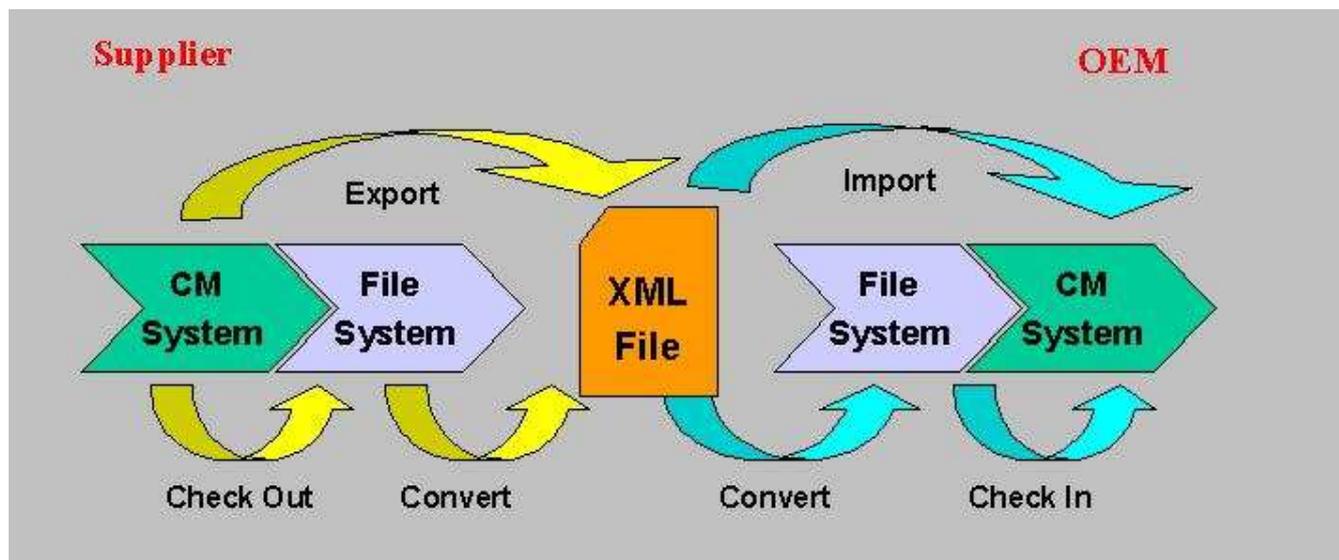


Figure 3: IMPORT/EXPORT Process

For better understanding more details of two application scenarios are described below:

- Using CATALOG for synchronizing two repositories by incremental approach.
- Using CATALOG for exchanging version histories.

3.1 Incremental data exchange

The catalog can be used for full fledged as well as for incremental data exchange. In both cases, all meta data have to be transmitted. In case of incremental exchange the unchanged physical files can be omitted.

In order to keep all references valid within the catalog the appropriate **<ABLOCK>**s must be provided. Therefore, the **[UPD]** attribute allows to give information about the contents (see also [Chapter 4.1 ABLOCK p. 30](#)):

NEW The object is newly introduced in the data management system of the process. Therefore the contents file must be in the catalog (in particular, an **<FILE>** element must occur within **<ABLOCK>**)¹.

REUSED The object (**<ABLOCK>**) was introduced in the data management system of the process at former time and had been removed in between. Like **[NEW]** it is not in the catalog of the previous exchange. Therefore the content files must be referenced in the catalog (in particular, a **<FILE>** element must occur within **<ABLOCK>**).

UNUSED The object is no longer used. The **<ABLOCK>** is there in order to indicate, that the object can be removed in the configuration on the receiver's site. The **<ABLOCK>** does not reference anything within the actual catalog².

This is used to support the update procedure on the receiver's site³.

¹ This cannot be determined by comparing catalogs since the full exchange history is necessary which must be kept in the process data management system

² There is no value "deleted" because versioned data is not deleted in order to track the full history.

³ The reference catalog must be identified by local means and is not defined in the actual catalog.

UNCHANGED The object is unchanged. Therefore it must already be available on the receiver's site. Therefore it is possible to omit the file itself.

CHANGED The object is changed. Therefore the content files must be referenced in the catalog (in particular, a **<FILE>** element must occur within **<ABLOCK>**).

MOVED The object is **unchanged** but in different Groups (also represented by **<ABLOCK>**). Therefore it must already be available on the receiver's site. So it is possible to omit the file itself.

If the object is **moved** and **changed** it shall be marked as changed.

DELETED This attribute is intended for use cases where objects can be created but not deleted. If the data management system of the process wants to deliver a catalog it must be able to tell the target data management system that this object must be ignored. As opposite to **UNUSED** this should be used if the new object is not yet in the target system. **UNUSED** is used, if the object is already in the target system.

UNDEFINED For states that are not defined in the current value list. In that circumstance the **[SI]** attribute can be used for some special processing.

3.2 Using the catalog for transmitting a revision history

In order to document change history of subjects, the following approach is recommended:

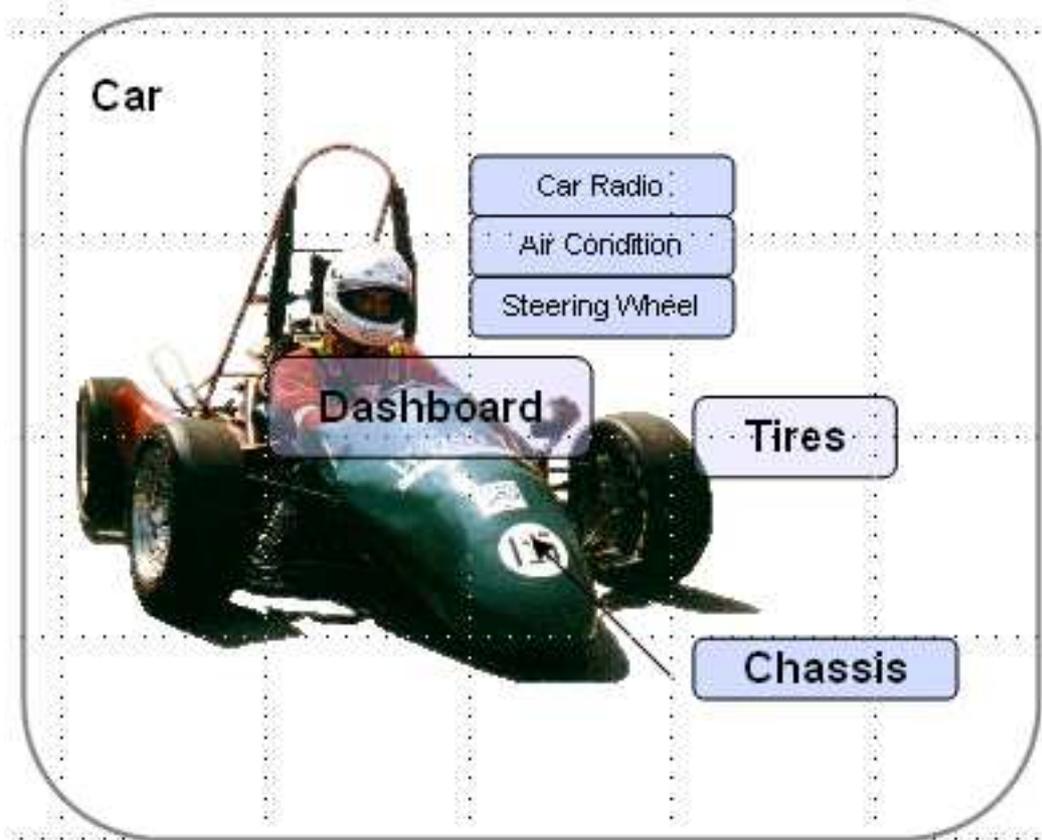
- Insert one **<ABLOCK>** for each particular revision of a file or a group.
- Use different file names for each version. In particular, it is recommended to code the revision label into the file name such as *myfile-01-07.txt*.
- Place the version information into **<ADMIN-DATA>/<DOC-REVISION>/<REVISION-LABEL>**.
- Add a **<CATEGORY>** with the content "Revision-history" to each **<ABLOCK>**.

```
<CATALOG>
  <SHORT-NAME>ARMD</SHORT-NAME>
  <CATEGORY>History-overview</CATEGORY>
  <ADMIN-DATA>
  <DOC-REVISIONS>
  <DOC-REVISION>
    <REVISION-LABEL>1.0</REVISION-LABEL>
    <DATE>2000-03-03T19:39:38</DATE>
  </DOC-REVISION>
</DOC-REVISIONS>
  </ADMIN-DATA>
  <ABLOCK ID="ID67160756756491">
  <SHORT-NAME>ARMD</SHORT-NAME>
  <CATEGORY>Revision-history</CATEGORY>
  <ADMIN-DATA>
  <DOC-REVISIONS>
  <DOC-REVISION>
  <REVISION-LABEL>10.30</REVISION-LABEL>
  </DOC-REVISION>
</DOC-REVISIONS>
  </ADMIN-DATA>
  <FILE>fkt-armd-10.30-0.pdf</FILE>
  </ABLOCK>
  <ABLOCK ID="ID46044516198054">
  <SHORT-NAME>ARMD</SHORT-NAME>
  <CATEGORY>Revision-history</CATEGORY>
  <ADMIN-DATA>
  <DOC-REVISIONS>
  <DOC-REVISION>
  <REVISION-LABEL>10.40</REVISION-LABEL>
  </DOC-REVISION>
</DOC-REVISIONS>
  </ADMIN-DATA>
  <FILE>fkt-armd-10.40-0.pdf</FILE>
  </ABLOCK>
</CATALOG>
```

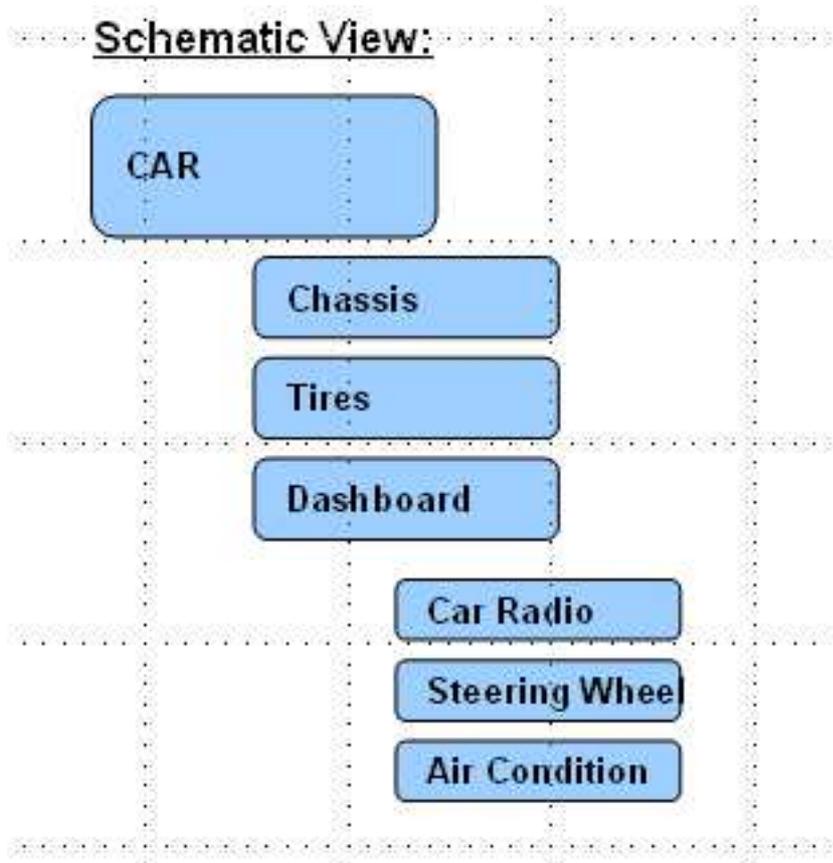
3.3 Usage of the ABLOCK attribute UPD in a sample scenario

3.3.1 The UPD attribute of the ABLOCK

In the following slides the value of the ABLOCK attribute <UPD> will be defined in detail. Therefore, a scenario will be used to clarify the meaning of the attribute, which describes the exchange of parts of a simple car between supplier and manufacturer using the container catalog. The car consists of the following elements:



UPD1.png



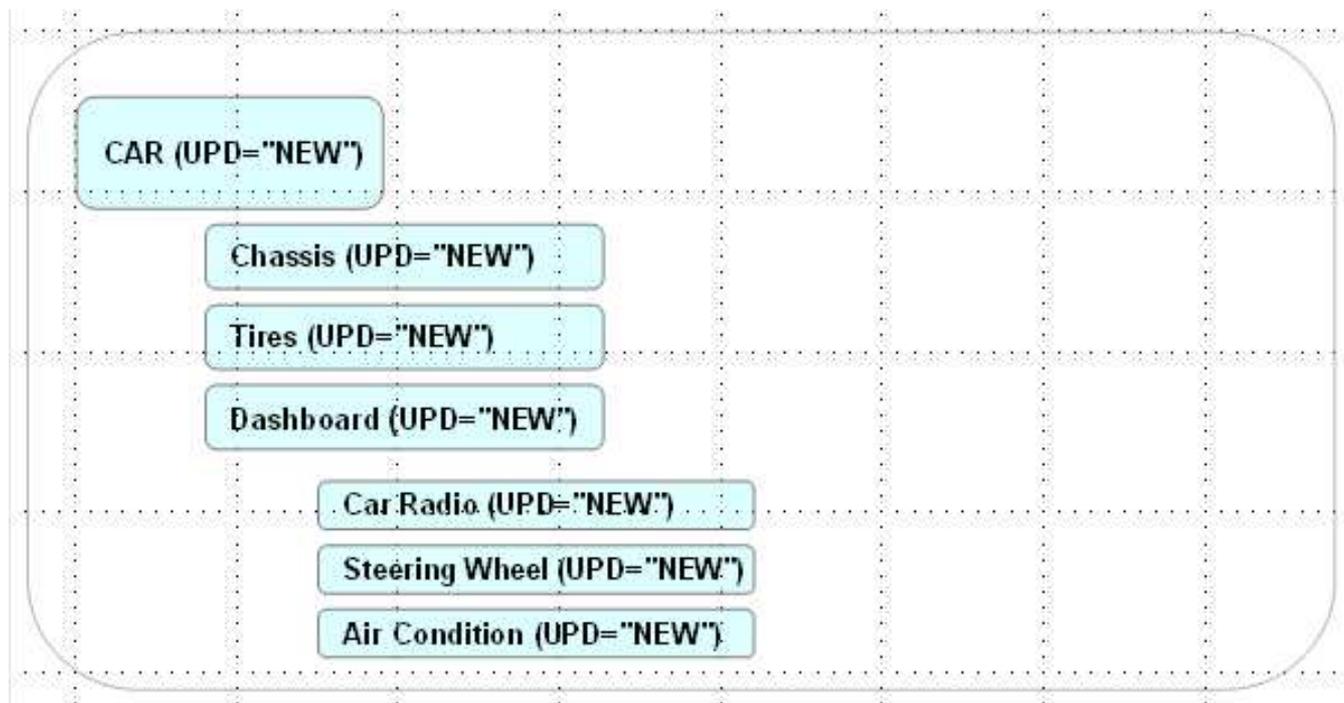
UPD2.png

Remark:

For transparency reasons, the instances have been made as short as possible and don't use essential administration info. E.g. the version info of the steering wheel is expressed in the filename, which has no equivalence in real live scenarios.

3.3.2 Step1: Initial Exchange

In the initial exchange all parts of the car will be transferred with the status new, due to the fact that the car doesn't yet exist on the receiving side.



```

<CATALOG>
  <SHORT-NAME>Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="NEW">
    <SHORT-NAME>Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tires"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="NEW">
    <SHORT-NAME>Chassis</SHORT-NAME>
    <FILE>chassis.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="Tires" UPD="NEW">
    <SHORT-NAME>Tires</SHORT-NAME>
    <FILE>Tires.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="NEW">
    <SHORT-NAME>Dashboard</SHORT-NAME>
    <AREF ID-REF="SteeringWheel"/>
    <AREF ID-REF="CarRadio"/>
    <AREF ID-REF="AirCondition"/>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="NEW">
    <SHORT-NAME>SteeringWheel</SHORT-NAME>
    <FILE>SteeringWheel.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarRadio" UPD="NEW">
    <SHORT-NAME>radio</SHORT-NAME>
    <FILE>Radio.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="AirCondition" UPD="NEW">
    <SHORT-NAME>air.condition</SHORT-NAME>
    <FILE>aircondition.dwg</FILE>
  </ABLOCK>
</CATALOG>

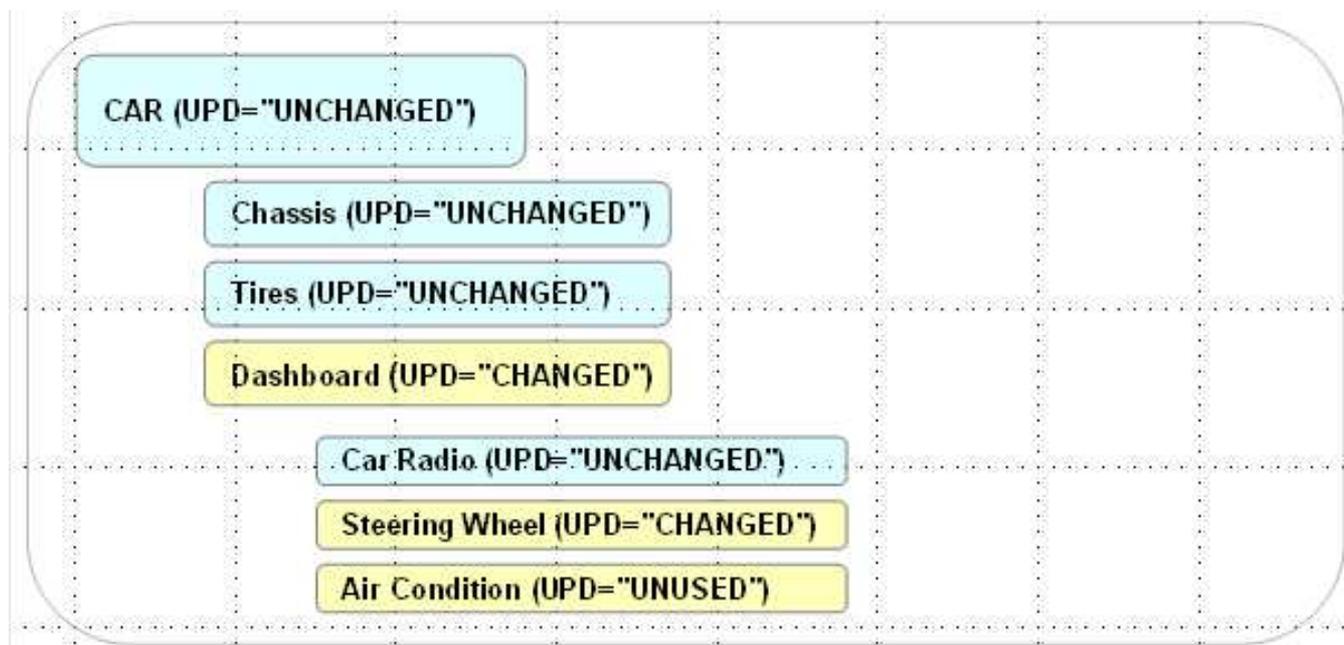
```

UPD4.png

3.3.3 Step2: Without air condition (performance reasons...)

During the development the steering wheel has been changed (new version) and the air condition has been removed from the system. All other parts of the system haven't changed. What is the difference between unused and deleted? If an <ABLOCK> is "unused" it offers the possibility to "reuse" it again. When it is deleted (UPD="DELETED"), this possibility doesn't exist. If a structure changes (e.g. the dashboard by removing the air condition) then the element must be marked as changed (UPD="CHANGED"). The file name for the steering wheel has been changed to express,

that another version is used. In this example, the file name should carry the version info instead of using <ADMIN-DATA> therefore to keep it simple.



```

<CATALOG>
  <SHORT-NAME> Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="UNCHANGED">
    <SHORT-NAME>Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tires"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="UNCHANGED">
    <SHORT-NAME>Chassis</SHORT-NAME>
    <FILE>chassis.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="Tires" UPD="UNCHANGED">
    <SHORT-NAME>Tires</SHORT-NAME>
    <FILE>Tires.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="CHANGED">
    <SHORT-NAME>Dashboard</SHORT-NAME>
    <AREF ID-REF="SteeringWheel"/>
    <AREF ID-REF="CarRadio"/>
    <AREF ID-REF="AirCondition"/>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="CHANGED">
    <SHORT-NAME>SteeringWheel</SHORT-NAME>
    <FILE>SteeringWheel-version2.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarRadio" UPD="UNCHANGED">
    <SHORT-NAME>radio</SHORT-NAME>
    <FILE>Radio.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="AirCondition" UPD="UNUSED">
    <SHORT-NAME>air condition</SHORT-NAME>
    <FILE>aircondition.dwg</FILE>
  </ABLOCK>
</CATALOG>

```

UPD06.png

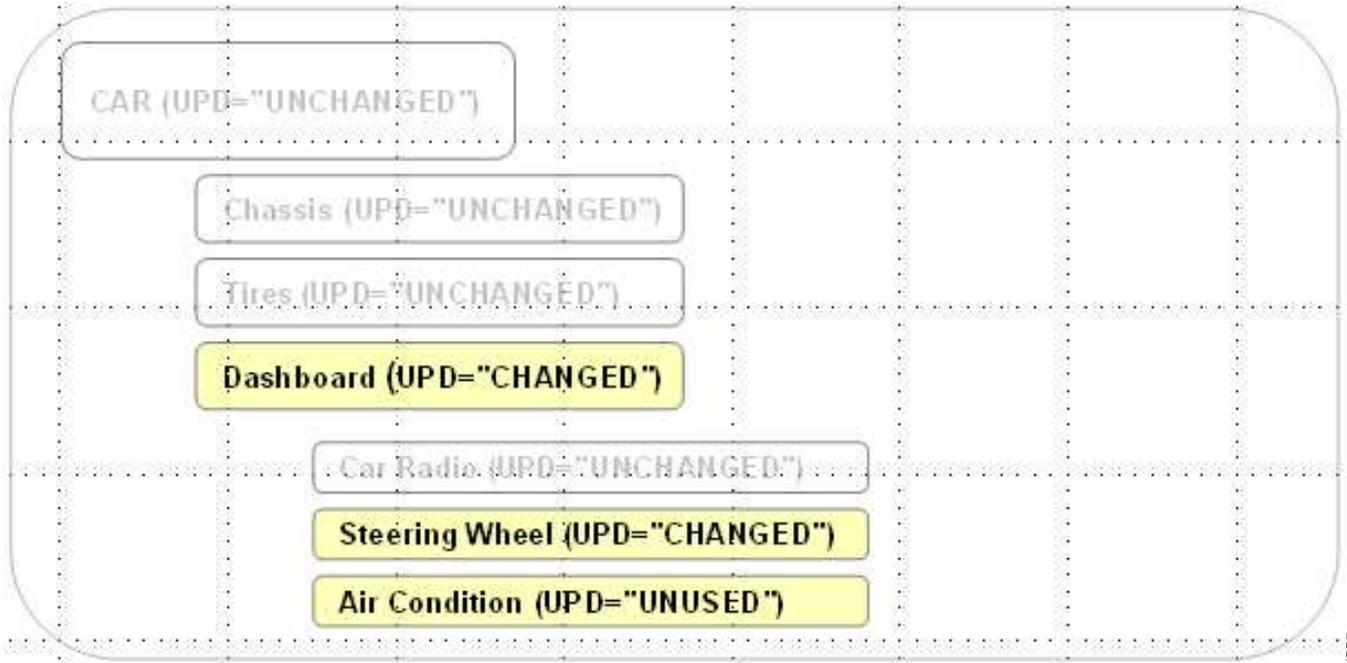
3.3.4 Step2: Without air condition - Incremental exchange

In the incremental exchange, only elements, which are changed, unused, deleted, reused, new will be transferred. An Element will be marked as changed, if the value of the UPD-Attribute of one of its children is

- REUSED
- UNUSED

- NEW
- DELETED
- MOVED

if the element has,



```

<CATALOG>
  <SHORT-NAME>Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="UNCHANGED">
    <SHORT-NAME>Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tires"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="UNCHANGED">
    <SHORT-NAME>Chassis</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="Tires" UPD="UNCHANGED">
    <SHORT-NAME>Tires</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="CHANGED">
    <SHORT-NAME>Dashboard</SHORT-NAME>
    <AREF ID-REF="SteeringWheel"/>
    <AREF ID-REF="CarRadio"/>
    <AREF ID-REF="AirCondition"/>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="CHANGED">
    <SHORT-NAME>SteeringWheel</SHORT-NAME>
    <FILE>SteeringWheel-version2.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarRadio" UPD="UNCHANGED">
    <SHORT-NAME>radio</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="AirCondition" UPD="UNUSED">
    <SHORT-NAME>air condition</SHORT-NAME>
  </ABLOCK>
</CATALOG>

```

UPD08.png

Remark:

It is not possible to remove unchanged **<ABLOCK>**s from the container catalog due to

- If only changed **<ABLOCK>**s are in container, the corresponding **<AREF>**s pointing to nothing - invalid instance
- If also the **<AREF>**s pointing to unchanged **<ABLOCK>**s are removed, then some **<ABLOCK>**s are changed, because they have e.g. instead of 5 **<AREF>**s only 3.

Conclusion

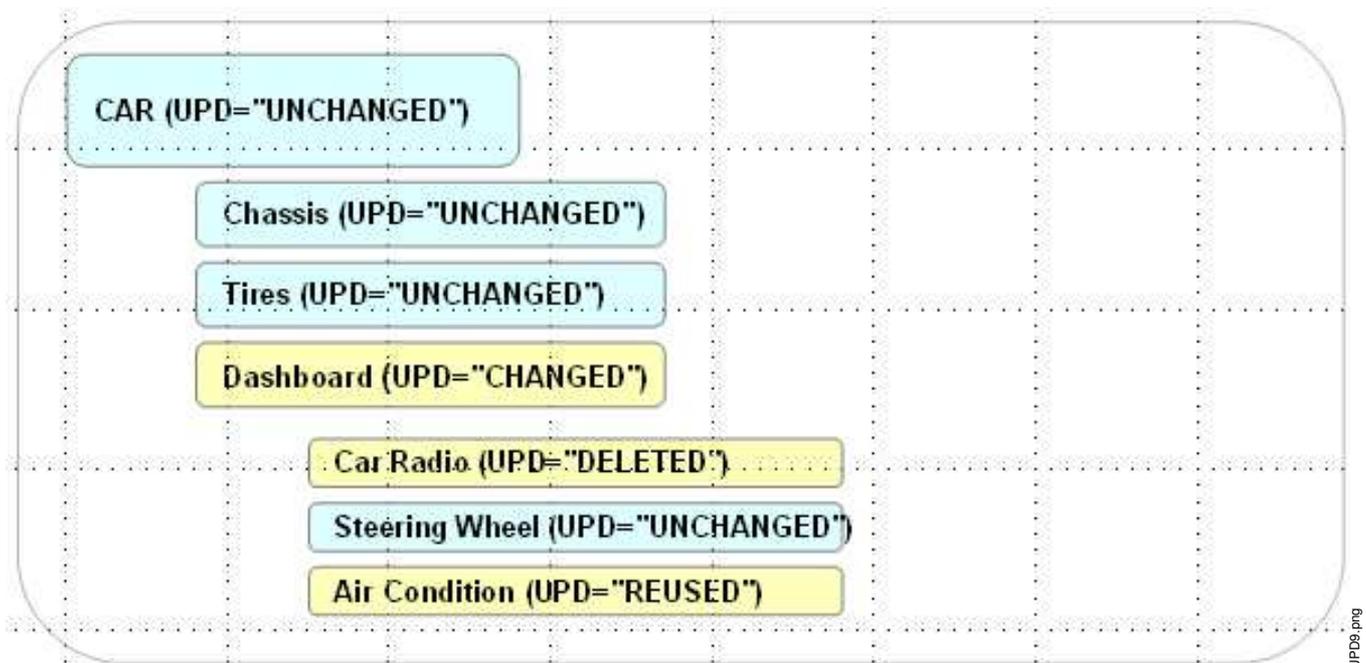
Incremental exchange that is reflected in the container catalog structure is not possible.

Therefore:

- Don't transmit the unchanged files and
- don't set the <FILE> in unchanged files.

3.3.5 Step3: air condition again, but remove the radio

Changes: As the driver complains about the cockpit temperature, the air condition must be integrated again. To optimize the weight of the car, the radio is permanently removed from the car. (UPD=DELETED)



UPD09.png

```

<CATALOG>
  <SHORT-NAME>Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="UNCHANGED">
    <SHORT-NAME>Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tires"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="UNCHANGED">
    <SHORT-NAME>Chassis</SHORT-NAME>
    <FILE>chassis.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="Tires" UPD="UNCHANGED">
    <SHORT-NAME>Tires</SHORT-NAME>
    <FILE>Tires.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="CHANGED">
    <SHORT-NAME>Dashboard</SHORT-NAME>
    <AREF ID-REF="SteeringWheel"/>
    <AREF ID-REF="CarRadio"/>
    <AREF ID-REF="AirCondition"/>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="UNCHANGED">
    <SHORT-NAME>SteeringWheel</SHORT-NAME>
    <FILE>SteeringWheel-version2.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarRadio" UPD="DELETED">
    <SHORT-NAME>radio</SHORT-NAME>
    <FILE>Radio.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="AirCondition" UPD="REUSED">
    <SHORT-NAME>air condition</SHORT-NAME>
    <FILE>aircondition.dwg</FILE>
  </ABLOCK>
</CATALOG>

```

UPD10.png

3.3.6 Step3: air condition again, incremental

The same scenario as incremental update from step 2

CAR (UPD="UNCHANGED")

Chassis (UPD="UNCHANGED")

Tires (UPD="UNCHANGED")

Dashboard (UPD="CHANGED")

Car Radio (UPD="DELETED")

Steering Wheel (UPD="UNCHANGED")

Air Condition (UPD="REUSED")

UPD11.png

```

<CATALOG>
  <SHORT-NAME> Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="UNCHANGED">
    <SHORT-NAME>Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tires"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="UNCHANGED">
    <SHORT-NAME>Chassis</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="Tires" UPD="UNCHANGED">
    <SHORT-NAME>Tires</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="CHANGED">
    <SHORT-NAME>Dashboard</SHORT-NAME>
    <AREF ID-REF="SteeringWheel"/>
    <AREF ID-REF="CarRadio"/>
    <AREF ID-REF="AirCondition"/>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="UNCHANGED">
    <SHORT-NAME>SteeringWheel</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="CarRadio" UPD="DELETED">
    <SHORT-NAME>radio</SHORT-NAME>
  </ABLOCK>
  <ABLOCK ID="AirCondition" UPD="REUSED">
    <SHORT-NAME>air condition</SHORT-NAME>
    <FILE>aircondition.dwg</FILE>
  </ABLOCK>
</CATALOG>

```

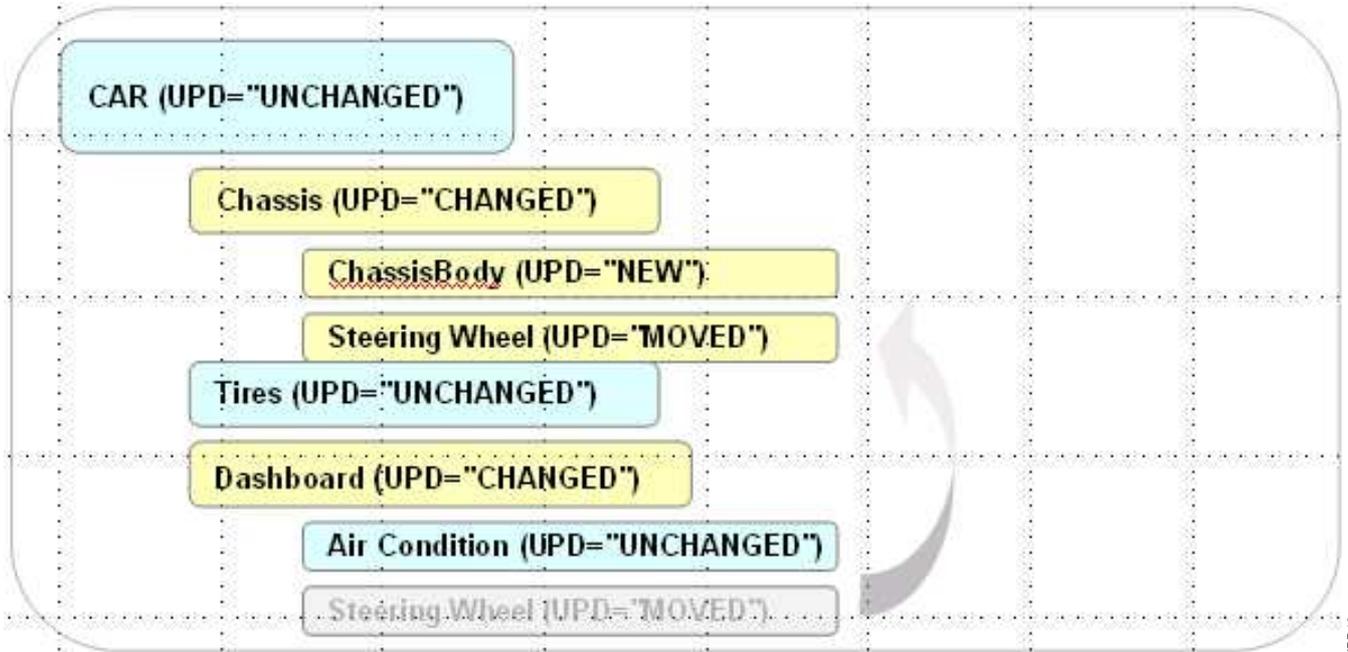
UPD12.png

3.3.7 Step4a: Rearrange the components

Changes: Due to a reorganization of the company the responsibilities for the car have changed. As a result, the steering wheel is removed from the dashboard and placed to the chassis structure. Another rule of the container catalog defines, that, in one <ABLOCK> it is not possible to point to a <file> and also to a <ABLOCK> with <AREF>. Therefore a new ABLOCK - ChassisBody must be invented. Now this new ABLOCK carries the file chassis.dwg.

To mark the reorganization,

- the dashboard has got the element <AREF-MOVED> of the steering-wheel ABLOCK the chassis element gets
- the ABLOCK SteeringWheel with the UPD attribute MOVED



UPD13.png

```

<CATALOG>
  <SHORT-NAME>Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="UNCHANGED">
    <SHORT-NAME>Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tirès"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="CHANGED">
    <SHORT-NAME>Chassis</SHORT-NAME>
    <AREF ID-REF="ChassisBody"/>
    <AREF ID-REF="SteeringWheel"/>
  </ABLOCK>
  <ABLOCK ID="ChassisBody" UPD="NEW">
    <SHORT-NAME>ChassisBody</SHORT-NAME>
    <FILE>chassis.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="MOVED">
    <SHORT-NAME>SteeringWheel</SHORT-NAME>
    <FILE>SteeringWheel-version2.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="Tirès" UPD="UNCHANGED">
    <SHORT-NAME>Tires</SHORT-NAME>
    <FILE>Tires.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="CHANGED">
    <SHORT-NAME>Dashboard</SHORT-NAME>
    <AREF-MOVED ID-REF="SteeringWheel"/>
    <AREF ID-REF="AirCondition"/>
  </ABLOCK>
  <ABLOCK ID="AirCondition" UPD="UNCHANGED">
    <SHORT-NAME>air_condition</SHORT-NAME>
    <FILE>aircondition.dwg</FILE>
  </ABLOCK>
</CATALOG>

```

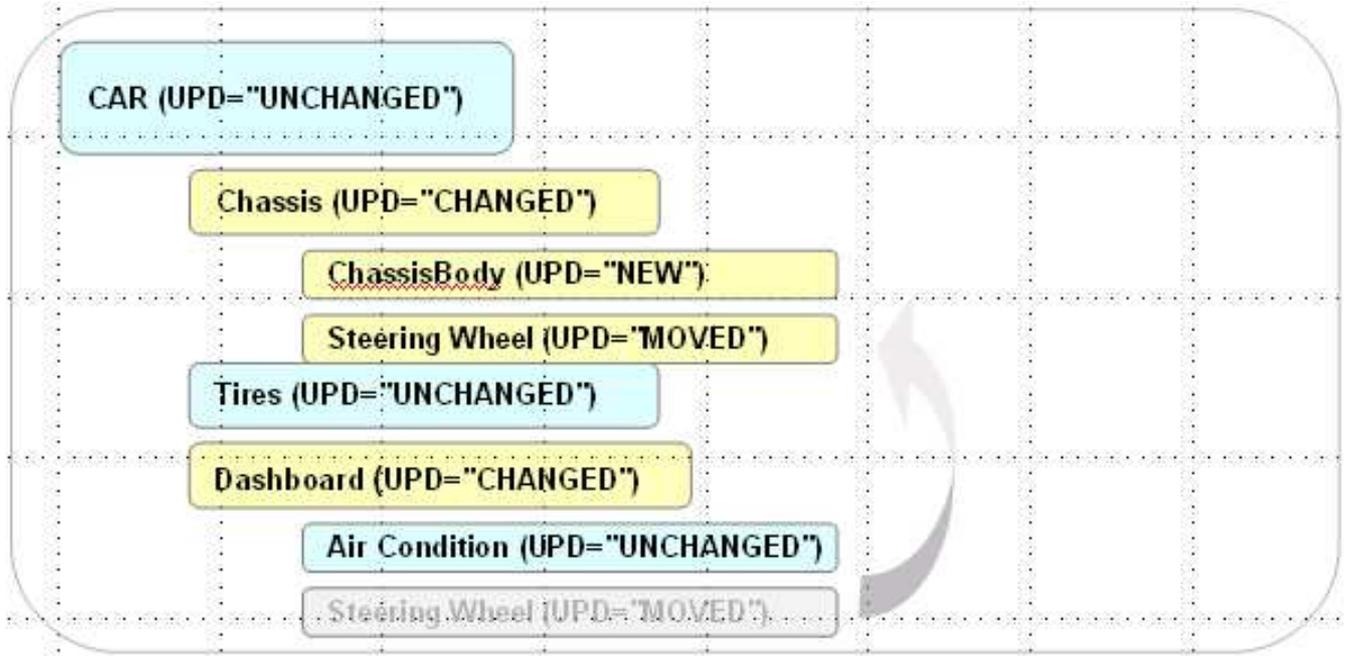
UPD14.png

3.3.8 Step4b: same as 4a, but with an updated SteeringWheel ABLOCK

Same situation as 4a, but now the SteeringWheel element has also a new version. -> Open question: Must all organizational changes be covered by the container catalog or only by incremental updates. If there is a lot of hierarchical changes, the container catalog will get unreadable due to aref-moveds, moved....

In this example the SteeringWheel changes location and version. Now, the UPD is aggregated from MOVED and CHANGED which results in CHANGED.

As alternative we can use <ABLOCK UPD="MOVED|CHANGED">?



AREF-MOVED & UPD = CHANGED

```

<CATALOG>
  <SHORT-NAME> Container Catalog Sample</SHORT-NAME>
  <CATEGORY>SAMPLE</CATEGORY>
  <AREF ID-REF="Car"/>
  <ABLOCK ID="Car" UPD="UNCHANGED">
    <SHORT-NAME> Car</SHORT-NAME>
    <AREF ID-REF="Chassis"/>
    <AREF ID-REF="Tires"/>
    <AREF ID-REF="CarDashboard"/>
  </ABLOCK>
  <ABLOCK ID="Chassis" UPD="CHANGED">
    <SHORT-NAME> Chassis</SHORT-NAME>
    <AREF ID-REF="ChassisBody"/>
    <AREF ID-REF="SteeringWheel"/>
  </ABLOCK>
  <ABLOCK ID="ChassisBody" UPD="NEW">
    <SHORT-NAME> ChassisBody</SHORT-NAME>
    <FILE>chassis.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="SteeringWheel" UPD="CHANGED">
    <SHORT-NAME> SteeringWheel</SHORT-NAME>
    <FILE>SteeringWheel-version2.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="Tires" UPD="UNCHANGED">
    <SHORT-NAME> Tires</SHORT-NAME>
    <FILE>Tires.dwg</FILE>
  </ABLOCK>
  <ABLOCK ID="CarDashboard" UPD="CHANGED">
    <SHORT-NAME> Dashboard</SHORT-NAME>
    <AREF-MOVED ID-REF="SteeringWheel"/>
    <AREF ID-REF="AirCondition"/>
  <ABLOCK ID="AirCondition" UPD="UNCHANGED">
    <SHORT-NAME> air condition</SHORT-NAME>
    <FILE>aircondition.dwg</FILE>
  </ABLOCK>
</CATALOG>

```

4 Elemente der CATALOG DTD

This chapter reflects all elements in alphabetical order. The root can be found in [Chapter 4.7 CATALOG](#) p. 41

4.1 ABLOCK

Description

This represents assertions about a particular object. It comprises of meta data, fields. and the physical representation of the object itself.

The content of the object can be:

- a set of references (<**AREF**>) to other objects thus establishing a configuration tree.
- a set of physical files referenced by <**FILE**> representing the object. This set may comprise of different file types with the same contents or the fact that the object is distributed across multiple files. Another method to achieve this, would be to pack these files using compressed archives such as ZIP.
- a set of database fields (<**SDG**>) within <**COMPANY-DOC-INFO**> containing the data for the object. Note that the database fields can be there in addition to the contents mentioned above.

Note that for compatibility reasons there is no wrapper around the elements representing the contents of the ablock.

The version information for an <**ABLOCK**> can be given on two different ways:

- implicitly by using attributes such as **[REV]**, **[VAR]** etc. This is bound for use cases where all participants are using the same version scheme.
- explicitly by using <**ADMIN-DATA**> which among others allows to use separate version schemes for each participant in <**COMPANY-REVISION-INFO**>.

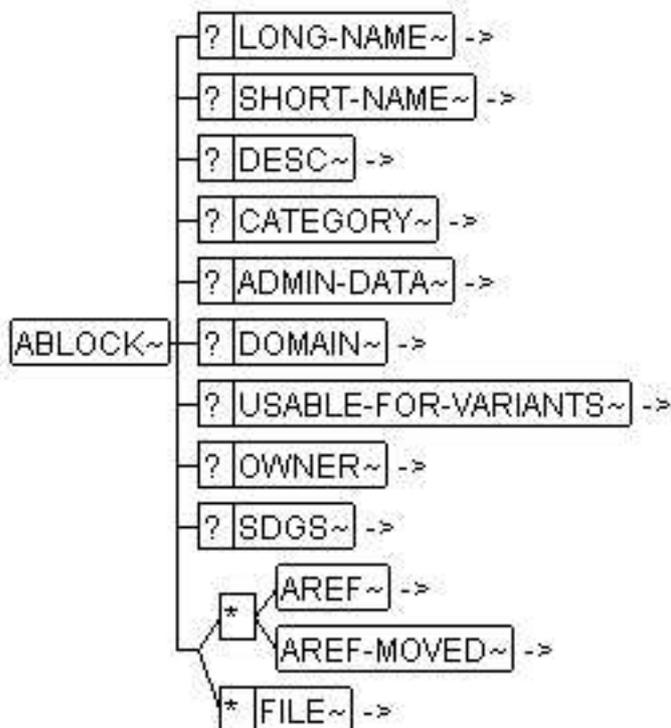
Although possible, it is not intended to use both methods at the same time.

The attribute **[UPD]** specifies the update status if incremental data exchange is performed using the catalog. The possible values might be as defined in [Chapter 3.1 Incremental data exchange](#) p. 12.

Formal Description

Hat als Kontext: [CATALOG](#)

Ist Kontext für: [LONG-NAME](#) , [SHORT-NAME](#) , [DESC](#) , [CATEGORY](#) , [ADMIN-DATA](#) , [DOMAIN](#) , [USABLE-FOR-VARIANTS](#) , [OWNER](#) , [SDGS](#) , [AREF](#) , [AREF-MOVED](#) , [FILE](#)



ABLOCK.PNG

Attribute	Type	Values	Remark
[DATE] (implied)	cdata		This reflects the date the object was last modified. This is for reference purposes only. It is useful, if the catalog is the only database used for meta data. Usually this attribute is omitted.
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.

Attribute	Type	Values	Remark
[LABEL] (implied)	cdata		This is the revision label string. It should be used, if the two step revision scheme provided by [REV] and [VAR] is not applied. The syntax of this attribute must be agreed upon the involved parties.
[REV] (implied)	cdata		This specifies the revision of the object if the two layer revision scheme mentioned above is used.
[S] (implied)	cdata		Signature. Used to store the calculated signature of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[UPD] (implied)	nmtoken		The attribute [UPD] specifies the update status if incremental data exchange is performed using the catalog. The possible values can be found above (see Chapter Incremental data exchange p. 12).
[VAR] (implied)	cdata		This specifies the variant of the object if the two layer revision scheme mentioned above is used.
[VIEW] (implied)	cdata		Any term used for a realization of a view mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

Attribute	Type	Values	Remark
[F-ID-CLASS] (fixed)	nmtoken	ABLOCK	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <AREF ID-REF="ID1" F-ID-CLASS="ABLOCK"> ... </AREF> can only link to an object which is classified as "ABLOCK" like: <ABLOCK ID="ID1" F-ID-CLASS="ABLOCK"> ... </ABLOCK>.

4.2 ADDRESS

Description

<ADDRESS> can be used to save the address of the company.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

ADDRESS~—#PCDATA

ADDRESS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.3 ADMIN-DATA

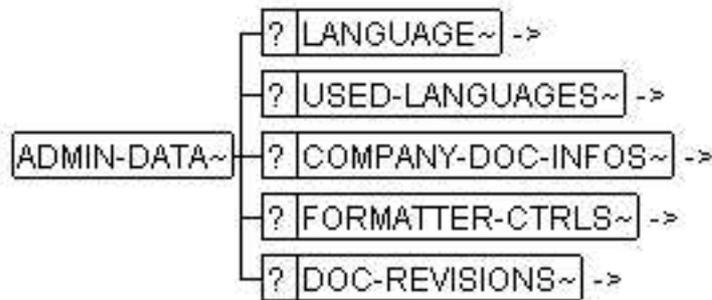
Description

<ADMIN-DATA> can be used to capture all information regarding document management such as used language and versioning.

Formal Description

Hat als Kontext: [ABLOCK](#) , [CATALOG](#)

Ist Kontext für: [LANGUAGE](#) , [USED-LANGUAGES](#) , [COMPANY-DOC-INFOS](#) , [FORMATTER-CTRLS](#) , [DOC-REVISIONS](#)



ADMIN-DATA.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.4 AREF

Description

This refers to another object (<ABLOCK>). The reference can be done on two different mechanisms:

- **[ID-REF]** pointing to an <ABLOCK> identified by **[ID]**.
- Content of <AREF> in conjunction with the attribute **[CATEGORY]** when <AREF> contains content of the <SHORT-NAME> of the referenced <ABLOCK> and the attribute **[CATEGORY]** contains the content of <CATEGORY> of the referenced <ABLOCK>.

It is not intended to use both mechanisms simultaneously. If however both methods are used at the same time, they must both point to the same object. A reader must flag contradictions as an error, and may continue using ID/IDREF.

If the catalog contains multiple versions of a particular object there is a name clash of **<SHORT-NAME>** within **<ABLOCK>**. This can be resolved by utilizing **[DOMAIN]**, **[REV]** and **[VAR]** attributes resp. **[LABEL]** of **<AREF>**(see also [Chapter 2 General approach to the Catalog p. 9](#))

Formal Description

Hat als Kontext: [ABLOCK](#) , [CATALOG](#)

Ist Kontext für: Text

AREF~—#PCDATA

AREFPNG

Attribute	Type	Values	Remark
[CATEGORY] (implied)	cdata		This is attribute contains the value of the <CATEGORY> element of the referenced <ABLOCK> .
[DOMAIN] (implied)	cdata		A DOMAIN is an additional separator in order to make <ABLOCK> s unique. This is useful, if one catalog carries elements from different systems, where the name (<SHORT-NAME> + <CATEGORY> + [VAR] + [REV] resp. [LABEL] of the <ABLOCK>) is not unique in the catalog.
[ID-REF] (implied)	idref		This attribute contains an existing ID which can be used to identify the related link target by its [ID] attribute.
[LABEL] (implied)	cdata		This is the revision label string. It should be used, if the two step revision scheme provided by [REV] and [VAR] is not applied. The syntax of this attribute must be agreed upon the involved parties.
[REV] (implied)	cdata		This specifies the revision of the object if the two layer revision scheme mentioned above is used.

Attribute	Type	Values	Remark
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VAR] (implied)	cdata		This specifies the variant of the object if the two layer revision scheme mentioned above is used.
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	ABLOCK	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <AREF ID-REF="ID1" F-ID-CLASS="ABLOCK"> ... </AREF> can only link to an object which is classified as "ABLOCK" like: <ABLOCK ID="ID1" F-ID-CLASS="ABLOCK"> ... </ABLOCK>.

Attribute	Type	Values	Remark
[HYNAMES] (fixed)	nmtokens	LINKEND ID-REF	HYNAMES is a mapping functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language) The names of the locator attributes e.g. ID-REF used to address the target of a hyperlink can be mapped to names defined in the HYTIME standard, that is LINKEND. This enables to use a generic architectural form processor for link processing and traversals.
[HYTIME] (fixed)	nmtoken	CLINK	HYTIME is the standard attribute to define a HYTIME architectural form. This functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language). This enables to use a generic architectural form processor for link processing and traversals.

4.5 AREF-MOVED

Description

This refers to another object which has been part of the actual ablock in a previous version (<**ABLOCK**>). This specific reference is there to provide means to indicate changes within a configuration in greater detail. Otherwise a group can be marked with **[UPD]** as *CHANGED* but all components of this group are *UNCHANGED* because one component is moved to somewhere else.

The reference can be done on two different mechanisms:

- **[ID-REF]** pointing to an <**ABLOCK**> identified by **[ID]**.
- Content of <**AREF-MOVED**> in conjunction with the attribute **[CATEGORY]** when <**AREF-MOVED**> contains an <**ABLOCK**>s <**SHORT-NAME**> and the attribute **[CATEGORY]** contains an <**ABLOCK**>s <**CATEGORY**>

It is not intended to use both mechanisms simultaneously. If however both methods are used at the same time, they must both point to the same object. A reader must flag contradictions as an error, and may continue using ID/IDREF.

If the catalog contains multiple versions of a particular object there is a name clash of **<SHORT-NAME>** within **<ABLOCK>**. This can be resolved by utilizing **[DOMAIN]**, **[REV]** and **[VAR]** attributes resp. **[LABEL]** of **<AREF>**(see also [Chapter 2 General approach to the Catalog p. 9](#))

Formal Description

Hat als Kontext: [ABLOCK](#)

Ist Kontext für: Text

AREF-MOVED~—#PCDATA

AREF-MOVED.PNG

Attribute	Type	Values	Remark
[CATEGORY] (implied)	cdata		This is attribute contains the value of the <CATEGORY> element of the referenced <ABLOCK> .
[DOMAIN] (implied)	cdata		A DOMAIN is an additional separator in order to make <ABLOCK> s unique. This is useful, if one catalog carries elements from different systems, where the name (<SHORT-NAME> + [VAR] + [REV]) is not unique in the catalog.
[ID-REF] (implied)	idref		This attribute contains an existing ID which can be used to identify the related link target by its [ID] attribute.
[LABEL] (implied)	cdata		This is the revision label string. It should be used, if the two step revision scheme provided by [REV] and [VAR] is not applied. The syntax of this attribute must be agreed upon the involved parties.
[REV] (implied)	cdata		This specifies the revision of the object if the two layer revision scheme mentioned above is used.

Attribute	Type	Values	Remark
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VAR] (implied)	cdata		This specifies the variant of the object if the two layer revision scheme mentioned above is used.
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	ABLOCK	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

Attribute	Type	Values	Remark
[HYNAMES] (fixed)	nmtokens	LINKEND ID-REF	HYNAMES is a mapping functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language) The names of the locator attributes e.g. ID-REF used to address the target of a hyperlink can be mapped to names defined in the HYTIME standard, that is LINKEND. This enables to use a generic architectural form processor for link processing and traversals.
[HYTIME] (fixed)	nmtoken	CLINK	HYTIME is the standard attribute to define a HYTIME architectural form. This functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language). This enables to use a generic architectural form processor for link processing and traversals.

4.6 BR

Description

This element forces a line break. It allows to introduce linebreaks in paragraphs, but even to make <VERBATIM> resistant against inadequate whitespace handling.

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [VERBATIM](#)

Hat keinen Inhalt.

BR empty

BR.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.7 CATALOG

Description

This is the root of the catalog. It comprises of meta data and assertion blocks. The meta data are related to the catalog itself.

If an entire system is transferred, the root of the configuration can be denoted in the **<AREF>** of **<CATALOG>**.

The use case of the catalog is denoted in **<CATEGORY>** as:

program-kit used to exchange entire program kits.

tool-kit used to exchange tool kits

History-overview used to exchange an history overview of one particular work item.

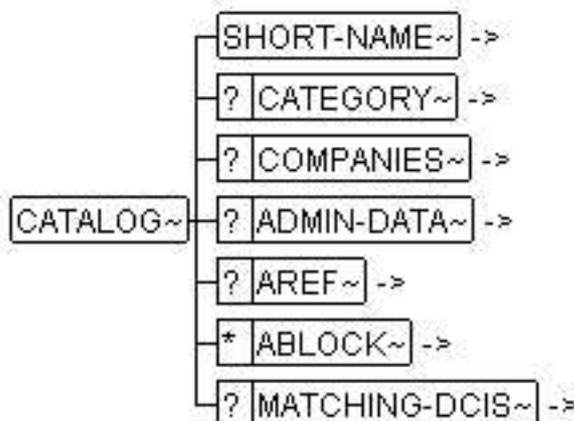
The public identifier in the DOCTYPE statement of an CATALOG instance can be defined like this:

```
<!DOCTYPE PUBLIC "-//MSR//DTD CONTAINER CATALOG V 2.2.0 MSRCC.DTD//EN" "msrcc-v220.xml.dtd">
```

Formal Description

Hat als Kontext: Root

Ist Kontext für: [SHORT-NAME](#) , [CATEGORY](#) , [COMPANIES](#) , [ADMIN-DATA](#) , [AREF](#) , [ABLOCK](#) , [MATCHING-DCIS](#)



CATALOG.PNG

Attribute	Type	Values	Remark
[CREATOR] (implied)	cdata		This denotes the tool which created the actual catalog.
[CREATOR-VERSION] (implied)	cdata		This denotes version of the tool which created the actual catalog.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-CM-TOOL-ID] (fixed)	cdata	\$Id: CATALOG.element dtd,v 1.7 2003/05/07 11:24:52 beweiche Exp \$	Fixed configuration management tool identifier of the DTD.
[F-DTD-BUILD] (fixed)	cdata	14	Fixed build number of the DTD.
[F-DTD-VERSION] (fixed)	cdata	2.2.0	Fixed Version String of the DTD.
[F-PUBID] (fixed)	cdata	-//MSR//DTD CON- TAINER CATALOG V2.2.0:MSRCC.DTD//EN	Fixed Public Identifier of the DTD.

4.8 CATEGORY

Description

This denotes the class of the object. This class must be agreed upon for various applications. The top level category (`<CATALOG><CATEGORY>`) element denotes the use case of the catalog.

Formal Description

Hat als Kontext: [ABLOCK](#) , [CATALOG](#)

Ist Kontext für: Text

`CATEGORY~` — #PCDATA

CATEGORY.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.9 CHANGE

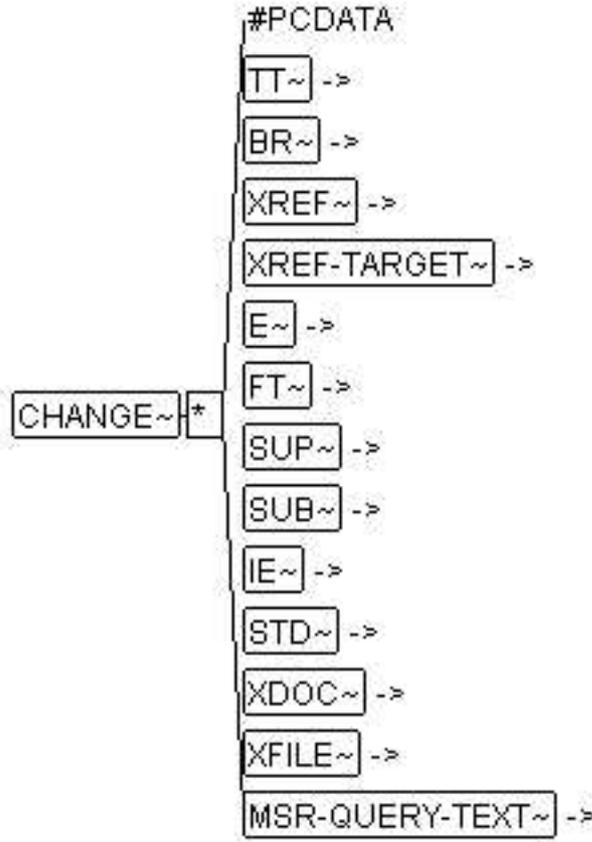
Description

`<CHANGE>` can be used to list the changes between the current and the latest document version.

Formal Description

Hat als Kontext: [MODIFICATION](#)

Ist Kontext für: Text, [TT](#) , [BR](#) , [XREF](#) , [XREF-TARGET](#) , [E](#) , [FT](#) , [SUP](#) , [SUB](#) , [IE](#) , [STD](#) , [XDOC](#) , [XFILE](#) , [MSR-QUERY-TEXT](#)



CHANGE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.10 CITY

Description

<CITY> can be used to save the city of a company.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

CITY~—#PCDATA

CITY.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.11 COMMENT

Description

Use **<COMMENT>** to write a comment about the function, the configuration or the expected result of an MSR-QUERY. This element shouldn't be printed by formatters.

Formal Description

Hat als Kontext: [MSR-QUERY-PROPS](#)

Ist Kontext für: Text

COMMENT~—#PCDATA

COMMENT.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.12 COMPANIES

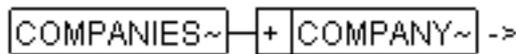
Description

<**COMPANIES**> is an wrapper element for various companies and can be used to describe the companies being involved in the project. Usually there is more than one company involved in the project. The company which generated the file is determined by following <**TEAM-MEMBER-REF**> within <**ADMIN-DATA**>. In simple cases there is only one company, so this lookup is not really necessary.

Formal Description

Hat als Kontext: [CATALOG](#)

Ist Kontext für: [COMPANY](#)



COMPANIES.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.13 COMPANY

Description

<**COMPANY**> can be used to describe the company and the persons being involved in the project.

Formal Description

Hat als Kontext: [COMPANIES](#)

Ist Kontext für: [LONG-NAME](#) , [SHORT-NAME](#) , [ROLES](#) , [TEAM-MEMBERS](#)



COMPANY.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.
[ROLE] (implied)	nmtoken		Choose MANUFACTURER, if the <COMPANY> is an manufacturer or partner. Choose Supplier, if the <COMPANY> is a supplier.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

Attribute	Type	Values	Remark
[F-CHILD-TYPE] (fixed)	cdata	LONG-NAME:SELECT	Med Child Type. Warning: This attribute is only in the DTD for compatibility with older versions of the DTD and should not be used for any new implementations. It might be removed in future versions of the DTD. This attribute contains the information which child elements of the actual element should be checked by a semantic checker.
[F-ID-CLASS] (fixed)	nmtoken	COMPANY	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

Attribute	Type	Values	Remark
[F-NAMESPACE] (fixed)	nmtokens	TEAM-MEMBER	Fixed name space. This attribute is placed on elements which define a namespace for linkable objects. The attribute contains a list of elements for which the element carrying the attribute is a namespace. This is used by processors which use the MSR natural linking mechanism. (Natural links address their link target with a sequence of short-names of the namespaces and the object itself e.g. '/test.xml/sw-system1/sw-var1')

4.14 COMPANY-DOC-INFO

Description

Use **<COMPANY-DOC-INFO>** to save document information about a company.

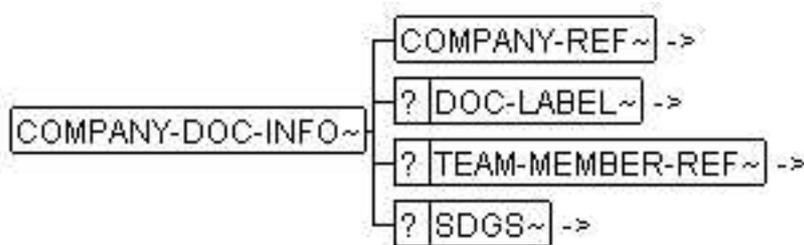
Example

see [Chapter 4.15 COMPANY-DOC-INFOS](#) p. 50

Formal Description

Hat als Kontext: [COMPANY-DOC-INFOS](#)

Ist Kontext für: [COMPANY-REF](#) , [DOC-LABEL](#) , [TEAM-MEMBER-REF](#) , [SDGS](#)



COMPANY-DOC-INFO.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature of an element (e.g. CRC).

Attribute	Type	Remark
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.15 COMPANY-DOC-INFOS

Description

<COMPANY-DOC-INFOS> is a wrapper containing all document information of companies.

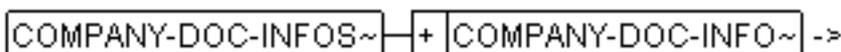
Example

```
<COMPANY-DOC-INFOS>
  <COMPANY-DOC-INFO>
    <COMPANY-REF>thecompany</COMPANY-REF>
    <DOC-LABEL>1.5</DOC-LABEL>
    <TEAM-MEMBER-REF>w1</TEAM-MEMBER-REF>
    <SDGS>
      <SDG GID="file-info">
        <SD GID="filename">foo-bar.xml</SD>
        <SD GID="tool">foo-tool.exe</SD>
      </SDG>
      <SDG GID="procurement">
        <SD GID="cost-center">012-1234</SD>
        <SD GID="total-charge">1.25,00 EUR</SD>
      </SDG>
    </SDGS>
  </COMPANY-DOC-INFO>
</COMPANY-DOC-INFOS>
```

Formal Description

Hat als Kontext: [ADMIN-DATA](#)

Ist Kontext für: [COMPANY-DOC-INFO](#)



COMPANY-DOC-INFOS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.

Attribute	Type	Remark
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.16 COMPANY-REF

Description

<COMPANY-REF> is the pointer to one particular company.

Formal Description

Hat als Kontext: [COMPANY-DOC-INFO](#) , [COMPANY-REVISION-INFO](#)

Ist Kontext für: Text

COMPANY-REF~ — #PCDATA

COMPANY-REF.PNG

Attribute	Type	Values	Remark
[ID-REF] (implied)	idref		This attribute contains an existing ID which can be used to identify the related link target by its [ID] attribute.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

Attribute	Type	Values	Remark
[F-ID-CLASS] (fixed)	nmtoken	COMPANY	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF> can only link to an object which is classified as "TEAM-MEMBER" like: <TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER>.
[HYNAMES] (fixed)	nmtokens	LINKEND ID-REF	HYNAMES is a mapping functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language) The names of the locator attributes e.g. ID-REF used to address the target of a hyperlink can be mapped to names defined in the HYTIME standard, that is LINKEND. This enables to use a generic architectural form processor for link processing and traversals.
[HYTIME] (fixed)	nmtoken	CLINK	HYTIME is the standard attribute to define a HYTIME architectural form. This functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language). This enables to use a generic architectural form processor for link processing and traversals.

4.17 COMPANY-REVISION-INFO

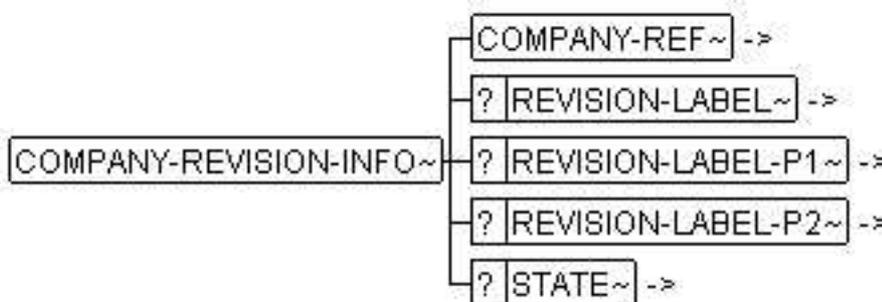
Description

<COMPANY-REVISION-INFO> can be used to save information about the document version of the company.

Formal Description

Hat als Kontext: [COMPANY-REVISION-INFOS](#)

Ist Kontext für: [COMPANY-REF](#) , [REVISION-LABEL](#) , [REVISION-LABEL-P1](#) , [REVISION-LABEL-P2](#) , [STATE](#)



COMPANY-REVISION-INFO.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.18 COMPANY-REVISION-INFOS

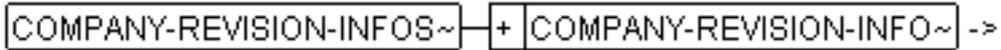
Description

<COMPANY-REVISION-INFOS> is a wrapper containing all document versions of companies.

Formal Description

Hat als Kontext: [DOC-REVISION](#)

Ist Kontext für: [COMPANY-REVISION-INFO](#)



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.19

DATE

Description

<DATE> is used to capture a time stamp. It must match to one of the following syntaxes:

<YYYY>-<MM>-<DD> [T<hh>:<mm>:<ss>]

<YYYY>.<MM>.<DD> [T<hh>:<mm>:<ss>]

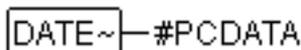
<YYYY>/<MM>/<DD> [T<hh>:<mm>:<ss>]

The last pattern is the most preferred one, since it reflects a common use in US.

Formal Description

Hat als Kontext: [DOC-REVISION](#)

Ist Kontext für: Text



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.

Attribute	Type	Remark
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.20

DATE-1

Description

<DATE-1> is used to capture a time stamp. It must match to one of the following syntaxes:

```
<YYYY>-<MM>-<DD> [T<hh>: <mm>: <ss>]
```

```
<YYYY>.<MM>.<DD> [T<hh>: <mm>: <ss>]
```

```
<YYYY>/<MM>/<DD> [T<hh>: <mm>: <ss>]
```

The last pattern is the most preferred one, since it reflects a common use in US.

Formal Description

Hat als Kontext: [STD](#) , [XDOC](#)

Ist Kontext für: Text

DATE-1~|#PCDATA

DATE-1.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.21

DEPARTMENT

Description

<DEPARTMENT> is used to save the department of the team-member.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

DEPARTMENT~—#PCDATA

DEPARTMENT.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.22

DESC

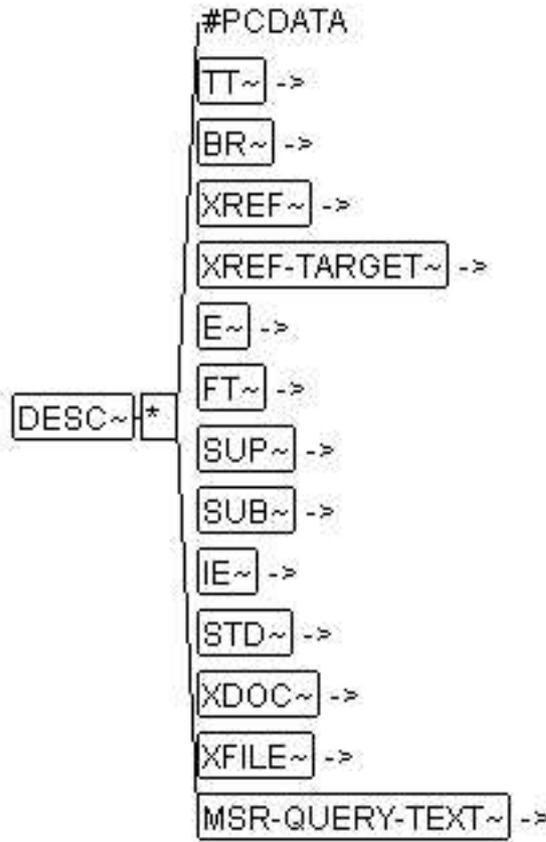
Description

<DESC> represents a general but brief description(1 to 20 lines) of the object in question.

Formal Description

Hat als Kontext: [ABLOCK](#) , [SDG-CAPTION](#)

Ist Kontext für: Text, [TT](#) , [BR](#) , [XREF](#) , [XREF-TARGET](#) , [E](#) , [FT](#) , [SUP](#) , [SUB](#) , [IE](#) , [STD](#) , [XDOC](#) , [XFILE](#) , [MSR-QUERY-TEXT](#)



DESC.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.23 DOC-LABEL

Description

Use <DOC-LABEL> to define an identification title or document number of the <CATALOG> instance.

Formal Description

Hat als Kontext: [COMPANY-DOC-INFO](#)

Ist Kontext für: Text

DOC-LABEL~ - #PCDATA

DOC-LABEL.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.24 DOC-REVISION

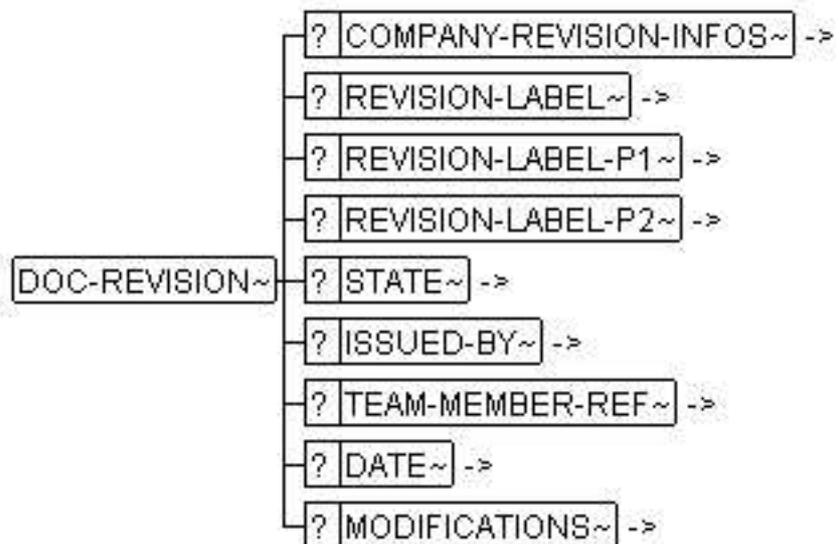
Description

<DOC-REVISION> can be used to save information according to the document version.

Formal Description

Hat als Kontext: [DOC-REVISIONS](#)

Ist Kontext für: [COMPANY-REVISION-INFOS](#) , [REVISION-LABEL](#) , [REVISION-LABEL-P1](#) , [REVISION-LABEL-P2](#) , [STATE](#) , [ISSUED-BY](#) , [TEAM-MEMBER-REF](#) , [DATE](#) , [MODIFICATIONS](#)



DOC-REVISION.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.25 DOC-REVISIONS

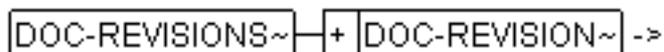
Description

<DOC-REVISIONS> is a container to get the entire change-history. Although the sequence of changes can be determined by sorting <DOC-REVISIONS> according to <DOC-REVISION>/<DATE>, it is recommended to put the most recent <DOC-REVISION> as the first child of <DOC-REVISIONS>.

Formal Description

Hat als Kontext: [ADMIN-DATA](#)

Ist Kontext für: [DOC-REVISION](#)



DOC-REVISIONS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.26 DOMAIN

Description

A **<DOMAIN>** is an additional separator in order to make ablocks unique. This is useful, if one catalog carries elements from different systems, where the name (name+version+revision) is not unique in the catalog.

Formal Description

Hat als Kontext: [ABLOCK](#)

Ist Kontext für: Text

DOMAIN~—#PCDATA

DOMAIN.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.27 E

Description

Emphasis can be used to mark text to be bold, italic, bolditalic, and plain. This is controlled with the attribute **[TYPE]**. *The color can be changed with the attribute **[COLOR]**.*

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [FT](#) , [LABEL](#) , [LONG-NAME](#) , [LONG-NAME-1](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#) , [VERBATIM](#)

Ist Kontext für: Text

E~—#PCDATA

E.PNG

Attribute	Type	Values	Remark
[TYPE] (default)	namedtokengroup	<ul style="list-style-type: none"> • BOLD • ITALIC • BOLDITALIC • PLAIN 	Type of emphasis
[COLOR] (implied)	cdata		Color of emphasis
[FONT] (implied)	namedtokengroup	<ul style="list-style-type: none"> • MONO • DEFAULT 	Attribute
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.28 EMAIL

Description

<EMAIL> is used to save the email address of the team member.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

EMAIL~ — #PCDATA

EMAIL.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.

Attribute	Type	Remark
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.29 FAX

Description

<FAX> is used to save the fax number of the team member.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

FAX~—#PCDATA

FAX.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.30 FILE

Description

This points to the contents of the object represented as a physical file. The file is identified by the contents of <file>. It can be interpreted as simple file relative to the position of the catalog itself. It can also be interpreted as a universal resource identifier.

If more than one <file> is there, all mentioned files belong to the ablock.

Formal Description

Hat als Kontext: [ABLOCK](#)

Ist Kontext für: Text

FILE~#PCDATA

FILE.PNG

Attribute	Type	Remark
[CREATION-DATE] (implied)	cdata	This denotes the date the described file was created.
[CREATOR] (implied)	cdata	This denotes the tool which created the described file.
[L] (implied)	cdata	This denotes the language of the data in the described file.
[MIME-TYPE] (implied)	cdata	This denotes the MIME Type of the described file.
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[TYPE] (implied)	cdata	This denotes the type of the file. The values must be agreed upon the involved participants.
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.31 FORMATTER-CTRL

Description

Use **<FORMATTER-CTRL>** to give in document specific formatter configuration parameters. The value of the parameters is located in the content of **<FORMATTER-CTRL>**. The name of the parameter is located in the

[SI] attribute. The processing system which has to interpret the parameter can be defined in the attribute **[TARGET-SYSTEM]**.

Formal Description

Hat als Kontext: [FORMATTER-CTRLS](#)

Ist Kontext für: Text

FORMATTER-CTRL~|#PCDATA

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element. In this context the name of the formatter parameter.
[T] (implied)	cdata	Time Stamp Entry
[TARGET-SYSTEM] (implied)	cdata	Name of the formatter system.
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.32 FORMATTER-CTRLS

Description

Wrapper element for one or more <FORMATTER-CTRL> elements.

Formal Description

Hat als Kontext: [ADMIN-DATA](#)

Ist Kontext für: [FORMATTER-CTRL](#)

FORMATTER-CTRLS~+|FORMATTER-CTRL~ ->

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.

Attribute	Type	Remark
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.33 FT

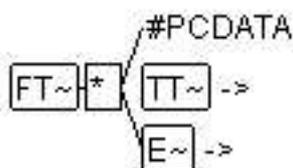
Description

Use <FT> to make footnotes. Footnotes might be displayed inline within the container paragraph in XML editors. However they are printed on the bottom of the page by paper formatters. In online formats like HTML they might be displayed as sub windows .

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)

Ist Kontext für: Text, [TT](#) , [E](#)



FTPNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.34 HOMEPAGE

Description

<HOMEPAGE> is used to save the URL of a company.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text



HOMEPAGE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.35

IE

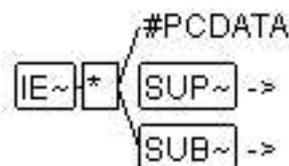
Description

USE <IE> to define an index entry. The content of <IE> is not printed inline because of conjugation problem. That's why these terms have to been written twice in the text.

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [LABEL](#) , [LONG-NAME](#) , [LONG-NAME-1](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)

Ist Kontext für: Text, [SUP](#) , [SUB](#)



IE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).

Attribute	Type	Remark
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[TYPE] (implied)	cdata	Use this attribute to define an index type. This attribute isn't supported by all formatters.
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.36 ISSUED-BY

Description

Use <ISSUED-BY> to describe the person who has published the doc-revision in question. As an alternative the person can be defined by <TEAM-MEMBER-REF> if the person is described as an <TEAM-MEMBER> in <COMPANIES>.

Formal Description

Hat als Kontext: [DOC-REVISION](#)

Ist Kontext für: Text

ISSUED-BY~—#PCDATA

ISSUED-BY.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.37 LABEL

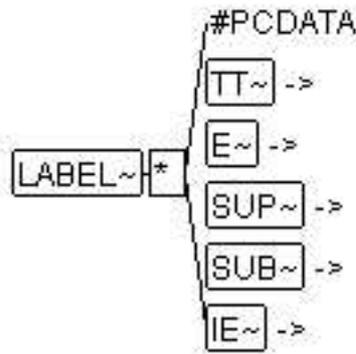
Description

Use this element to give in a describing label of an object.

Formal Description

Hat als Kontext: [MATCHING-DCI](#)

Ist Kontext für: Text, [TT](#) , [E](#) , [SUP](#) , [SUB](#) , [IE](#)



LABEL.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.38 LANGUAGE

Description

<**LANGUAGE**> represents the human language used within the file. It is mainly used to cause the tools to switch to an appropriate language.

This element follows ISO 639-1 two letter language codes (*Codes for the Representation of Names of Languages* (<http://lcweb.loc.gov/standards/iso639-2/termcodes.html>)). Mostly used codes are given in [Table 1 Most common language codes \(alphabetical\)](#) p. 68:

Table 1: Most common language codes (alphabetical)

Code	Language
de	German

Table 1 (Cont.): Most common language codes (alphabetical)

Code	Language
en	English
es	Spanish
fr	French
it	Italian
jp	Japanese

Formal Description

Hat als Kontext: [ADMIN-DATA](#)

Ist Kontext für: Text

`LANGUAGE~` — #PCDATA

LANGUAGE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.39 LONG-NAME

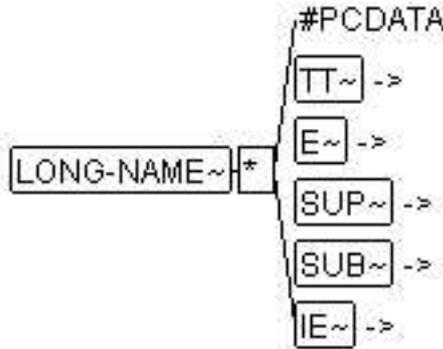
Description

<LONG-NAME> is used to describe the elements.

Formal Description

Hat als Kontext: [ABLOCK](#) , [COMPANY](#) , [SDG-CAPTION](#) , [TEAM-MEMBER](#)

Ist Kontext für: Text, [TT](#) , [E](#) , [SUP](#) , [SUB](#) , [IE](#)



LONG-NAME.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.40 LONG-NAME-1

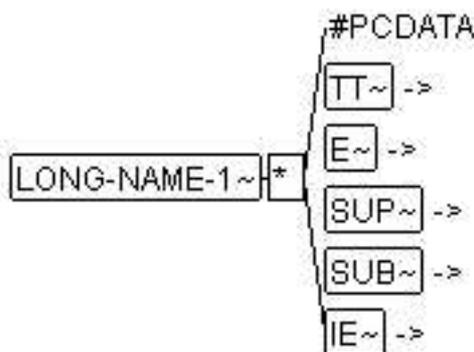
Description

<LONG-NAME-1> is used to describe the elements.

Formal Description

Hat als Kontext: [STD](#) , [XDOC](#) , [XFILE](#) , [XREF-TARGET](#)

Ist Kontext für: Text, [TT](#) , [E](#) , [SUP](#) , [SUB](#) , [IE](#)



LONG-NAME-1.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.41 MATCHING-DCI

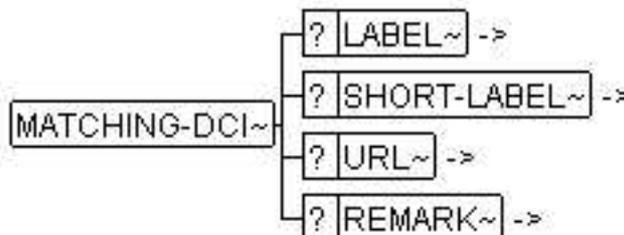
Description

<MATCHING-DCI> represents a reference to a *DCI* instance (Document Control Instance) to which the current file is supposed to match to. The official identification of the DCI is denoted by <URL> which points to the DCI file. The other elements are provided for informational purposes.

Formal Description

Hat als Kontext: [MATCHING-DCIS](#)

Ist Kontext für: [LABEL](#) , [SHORT-LABEL](#) , [URL](#) , [REMARK](#)



MATCHING-DCI.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry

Attribute	Type	Remark
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.42 MATCHING-DCIS

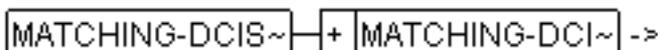
Description

<MATCHING-DCIS> represents all Document Content Information specifications the current file is supposed to be compliant to. As there may be multiple DCI instances, the current file is supposed to match to all of them. Nevertheless the check is only requested according to the current use case.

Formal Description

Hat als Kontext: [CATALOG](#)

Ist Kontext für: [MATCHING-DCI](#)



MATCHING-DCIS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.43 MODIFICATION

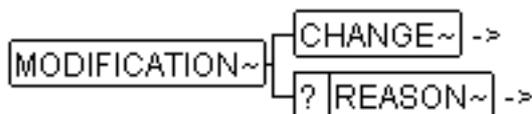
Description

<MODIFICATION> can be used to save a change in a document.

Formal Description

Hat als Kontext: [MODIFICATIONS](#)

Ist Kontext für: [CHANGE](#) , [REASON](#)



MODIFICATION.PNG

Attribute	Type	Values	Remark
[TYPE] (default)	namedtokengroup	<ul style="list-style-type: none"> CONTENT-RELATED DOC-RELATED 	Classification of the modification. The following values are allowed: DOC-RELATED - document specific changes, like spelling mistakes. CONTENT-RELATED - product specific changes or changes of the semantic meaning.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.44 MODIFICATIONS

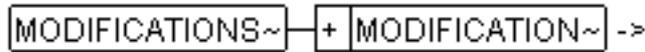
Description

<MODIFICATIONS> is the wrapper element of <MODIFICATION>. <MODIFICATION>s can be used to make a summary of changes between the current and the latest document version.

Formal Description

Hat als Kontext: [DOC-REVISION](#)

Ist Kontext für: [MODIFICATION](#)



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.45 MSR-QUERY-ARG

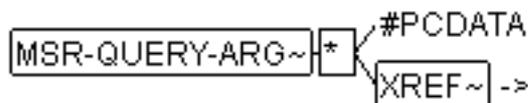
Description

Use this element to define an argument for a msr query. The value of the argument is located in the content of the element. The name of the argument can be written in the **[SI]** attribute.

Formal Description

Hat als Kontext: [MSR-QUERY-PROPS](#)

Ist Kontext für: Text, [XREF](#)



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element. In this context [SI] contains the name of the <MSR-QUERY-ARG> .
[T] (implied)	cdata	Time Stamp Entry

Attribute	Type	Remark
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.46 MSR-QUERY-NAME

Description

<MSR-QUERY-NAME> contains the name of an MSR-Query. MSR-Query processors have to interpret this name and map it to the corresponding procedure during the execution of the query.

Formal Description

Hat als Kontext: [MSR-QUERY-PROPS](#)

Ist Kontext für: Text

`MSR-QUERY-NAME~` — #PCDATA

MSR-QUERY-NAME.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.47 MSR-QUERY-PROPS

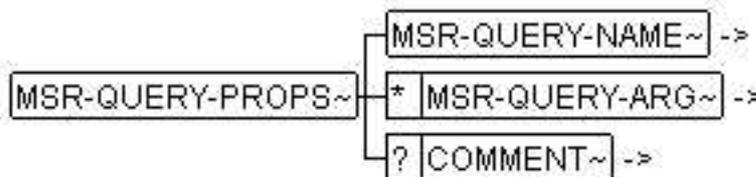
Description

This element contains all properties which are necessary for the execution of an MSR-Query.

Formal Description

Hat als Kontext: [MSR-QUERY-TEXT](#)

Ist Kontext für: [MSR-QUERY-NAME](#) , [MSR-QUERY-ARG](#) , [COMMENT](#)



MSR-QUERY-PROPS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.48 MSR-QUERY-RESULT-TEXT

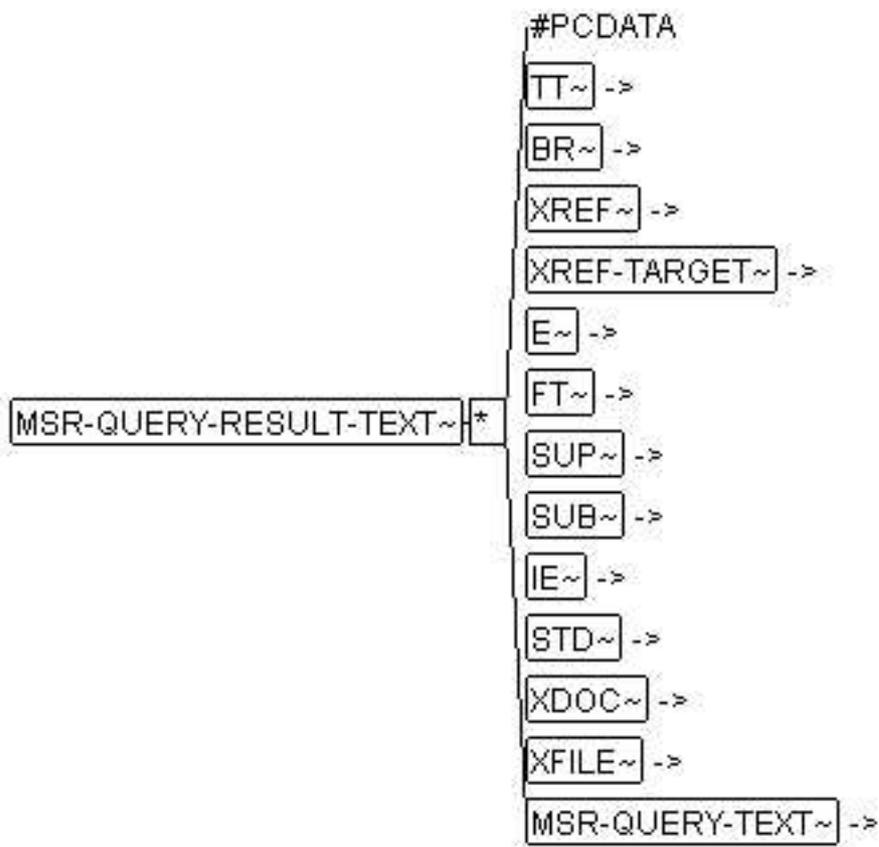
Description

This element contains the generated result of an MSR-Query. If the query has been executed the query-processor writes the result in this element by replacing all existing contents.

Formal Description

Hat als Kontext: [MSR-QUERY-TEXT](#)

Ist Kontext für: [Text](#), [TT](#), [BR](#), [XREF](#), [XREF-TARGET](#), [E](#), [FT](#), [SUP](#), [SUB](#), [IE](#), [STD](#), [XDOC](#), [XFILE](#), [MSR-QUERY-TEXT](#)



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

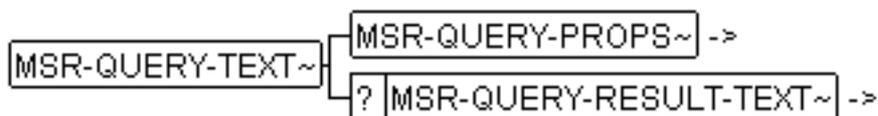
4.49 MSR-QUERY-TEXT

Description

<MSR-QUERY-TEXT> defines an MSR-Query. That is the content of <MSR-QUERY-RESULT-TEXT> is generated by a query which is specified by the properties in <MSR-QUERY-PROPS>

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)
 Ist Kontext für: [MSR-QUERY-PROPS](#) , [MSR-QUERY-RESULT-TEXT](#)



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.50 NOTATION

Description

Use **<NOTATION>** to describe the notation/format of an external file.

As an example the following notations can be used:

- BMP
- CGMBIN
- EPS
- GIF
- HTNL
- JPEG
- PCX
- PDF
- PS
- SGML
- TEX
- TIFF
- WMF

Formal Description

Hat als Kontext: [XFILE](#)

Ist Kontext für: Text

NOTATION~—#PCDATA

NOTATION.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.51

NUMBER

Description

This element can be used to describe a publishing number of an external document, e.g. an ISBN number.

Formal Description

Hat als Kontext: [XDOC](#)

Ist Kontext für: Text

NUMBER~—#PCDATA

NUMBER.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry

Attribute	Type	Remark
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.52 OWNER

Description

This specifies the legal owner of the object. This is used to prevent the information to be used in illegal contexts. As an example, if the function specification was provided by a particular company, it must not be used in the context of another company.

Formal Description

Hat als Kontext: [ABLOCK](#)

Ist Kontext für: Text

OWNER~#PCDATA

OWNER.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.53 P

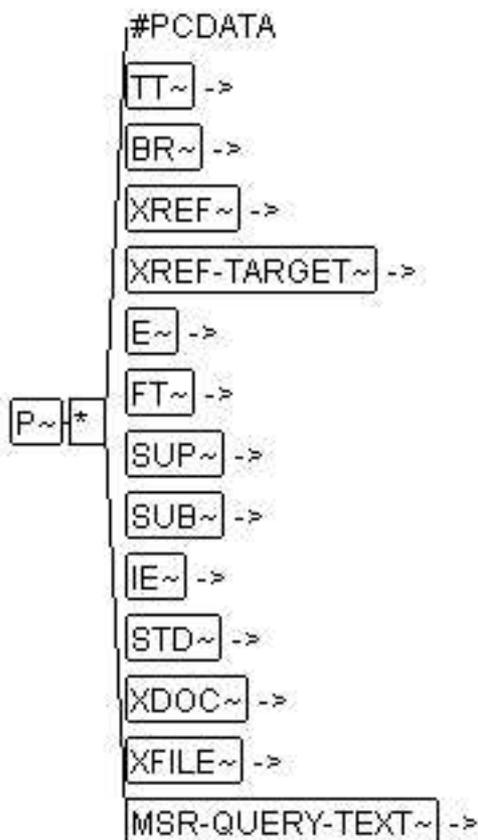
Description

Use <P> to define a paragraph in a text.

Formal Description

Hat als Kontext: [REMARK](#)

Ist Kontext für: Text, [TT](#), [BR](#), [XREF](#), [XREF-TARGET](#), [E](#), [FT](#), [SUP](#), [SUB](#), [IE](#), [STD](#), [XDOC](#), [XFILE](#), [MSR-QUERY-TEXT](#)



PPNG

Attribute	Type	Values	Remark
[HELP-ENTRY] (implied)	cdata		This attribute can be used to define an label for a help system. Formatters who generate help formats can use this label as a name for a navigation target.
[KEEP-WITH-PREVIOUS] (implied)	namedtokengroup	<ul style="list-style-type: none"> KEEP NO-KEEP 	The value keep shall keep this paragraph together with the predecessor block element(<P>)
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry

Attribute	Type	Values	Remark
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.54 PHONE

Description

<PHONE> is used to save the phone number of the team member.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

PHONE~ — #PCDATA

PHONE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.55 POSITION

Description

Use <POSITION> to define a position within an external document or an standard.

Formal Description

Hat als Kontext: [STD](#) , [XDOC](#)

Ist Kontext für: Text

POSITION~—#PCDATA

POSITION.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.56 PUBLISHER

Description

Use <**PUBLISHER**> to describe the publisher of an external document.

Formal Description

Hat als Kontext: [XDOC](#)

Ist Kontext für: Text

PUBLISHER~—#PCDATA

PUBLISHER.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.57 REASON

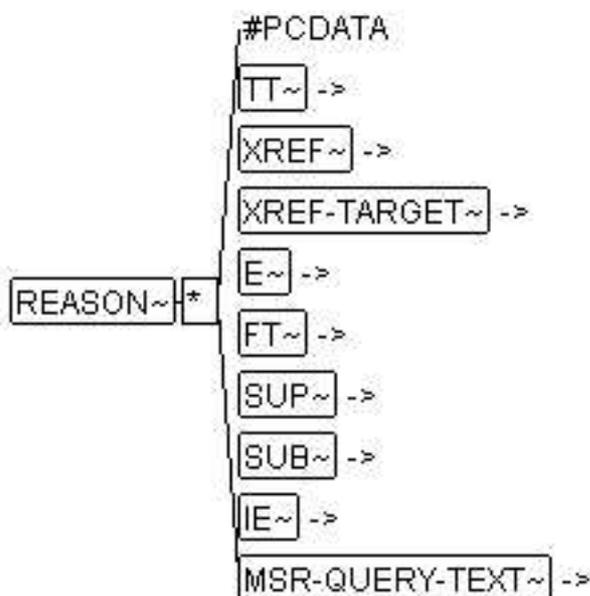
Description

<REASON> is used to give reasons for the changes in the current document.

Formal Description

Hat als Kontext: [MODIFICATION](#)

Ist Kontext für: Text, [TT](#), [XREF](#), [XREF-TARGET](#), [E](#), [FT](#), [SUP](#), [SUB](#), [IE](#), [MSR-QUERY-TEXT](#)



REASON.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.58 REMARK

Description

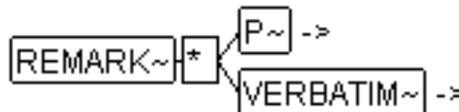
<**REMARK**> is used to give a comment e.g. for the particular calibration state. There are two options:

- Use <**P**> to allow the processing systems to perform a word wrapping.
- Use <**VERBATIM**> if whitespace is significant.

Formal Description

Hat als Kontext: [MATCHING-DCI](#)

Ist Kontext für: [P](#) , [VERBATIM](#)



REMARK.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.59 REVISION-LABEL

Description

Use <**REVISION-LABEL**> to give an revision number of a document or document fragment.

Formal Description

Hat als Kontext: [COMPANY-REVISION-INFO](#) , [DOC-REVISION](#)

Ist Kontext für: Text



REVISION-LABEL.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.60 REVISION-LABEL-P1

Description

Use <REVISION-LABEL-P1> to give a first alternative revision number of a document or document fragment.

Formal Description

Hat als Kontext: [COMPANY-REVISION-INFO](#) , [DOC-REVISION](#)

Ist Kontext für: Text

`REVISION-LABEL-P1~|#PCDATA`

REVISION-LABEL-P1.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.61 REVISION-LABEL-P2

Description

Use <REVISION-LABEL-P12> to give a second alternative revision number of a document or document fragment.

Formal Description

Hat als Kontext: [COMPANY-REVISION-INFO](#) , [DOC-REVISION](#)

Ist Kontext für: Text

REVISION-LABEL-P2~—#PCDATA

REVISION-LABEL-P2.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.62 ROLE

Description

<ROLE> denotes one particular role taken by the team member in question within the current project. Roles are such as "Author", "Calibration engineer", "Supporter", "Quality assurance".

Formal Description

Hat als Kontext: [ROLES](#)

Ist Kontext für: Text

ROLE~—#PCDATA

ROLE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.63 ROLES

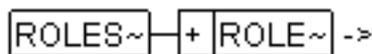
Description

<ROLES> is a wrapper containing all roles one particular team member takes within the project.

Formal Description

Hat als Kontext: [COMPANY](#) , [TEAM-MEMBER](#)

Ist Kontext für: [ROLE](#)



ROLES.PNG

Attribute	Type	Values	Remark
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

Attribute	Type	Values	Remark
[F-CHILD-TYPE] (fixed)	cdata	ROLE:SELECTION	Fixed Child Type. Warning: This attribute is only in the DTD for compatibility with older versions of the DTD and should not be used for any new implementations. It might be removed in future versions of the DTD. This attribute contains the information which child elements of the element carrying this attribute should be checked by an semantic checker.

4.64 SD

Description

The special data element **<SD>** can be used to define additional terminal elements which are not included in the schema. The element can be a normal text field or an link. The name of the additional element can be given in the attribute **<GID>**. If the element shall be an link the attributes **[ID-CLASS]** and **[ID-REF]** can be used.

Formal Description

Hat als Kontext: [SDG](#)

Ist Kontext für: Text

SD~—#PCDATA

SD.PNG

Attribute	Type	Remark
[GID] (required)	cdata	This attribute contains the generic identifier of the <SD> element.
[ID-CLASS] (implied)	nmtoken	This attribute contains the value of the [ID-CLASS] or [F-ID-CLASS] attribute of the link target referenced by the ID contained in [ID-REF] .
[ID-REF] (implied)	idref	This attribute contains an existing ID which can be used to identify the related link target by its [ID] attribute.

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.65 SDG

Description

<SDG> (*Special Data Group*) is a backdoor to transmit not interpreted structured data, which is contained in the "terminal" element <SD>. It is also very dangerous, because it may compromise the objective of standardized data exchange. It could be the case that data must be transmitted which is originally not supported in one of the DTDs. In order to avoid other file formats, the MSR-DTDs should be able to take such data.

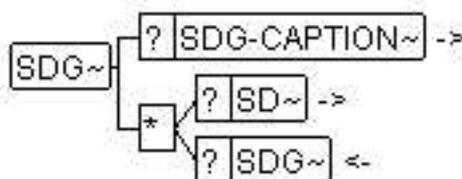
<SDG> defines an group element which contains other element groups or <SD> terminal elements.

Links to other elements in the instance are also possible via <SD>. If the <SDG> shall be a link target it must contain a <SDG-CAPTION> element which has an [ID] and <LONG-NAME> and/or <SHORT-NAME>.

Formal Description

Hat als Kontext: SDG , SDGS

Ist Kontext für: SDG-CAPTION , SD , SDG



SDG.PNG

Attribute	Type	Remark
[GID] (required)	cdata	This attribute contains the generic identifier of the <SDG> element.
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).

Attribute	Type	Remark
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.66 SDG-CAPTION

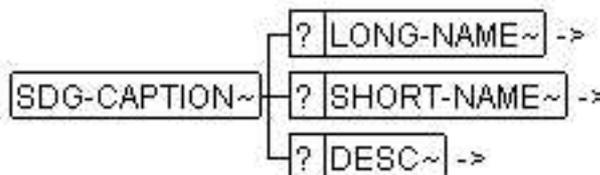
Description

This allows to assign an **[ID]**, a **<SHORT-NAME>**, a **<LONG-NAME>** as well as **<DESC>** to a special data group **<SDG>**.

Formal Description

Hat als Kontext: [SDG](#)

Ist Kontext für: [LONG-NAME](#) , [SHORT-NAME](#) , [DESC](#)



SDG-CAPTION.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry

Attribute	Type	Values	Remark
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	SDG	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

4.67 SDGS

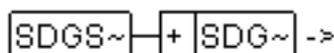
Description

Special data groups. `<SDGS>` groups one or more `<SDG>`s. `<SDG>` can be used to define free hierarchical structures to exchange data which is not modeled in the schema.

Formal Description

Hat als Kontext: [ABLOCK](#) , [COMPANY-DOC-INFO](#)

Ist Kontext für: [SDG](#)



SDGS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.68 SHORT-LABEL

Description

Use <SHORT-LABEL> to give in an identification label of an object.

Formal Description

Hat als Kontext: [MATCHING-DCI](#)

Ist Kontext für: Text

SHORT-LABEL~ — #PCDATA

SHORT-LABEL.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.69 SHORT-NAME

Description

<**SHORT-NAME**> is a label or name of the context element in order to identify this object. Leading and trailing whitespace shall have no meaning and must be ignored during the interpretation of the <**SHORT-NAME**>.

Formal Description

Hat als Kontext: [ABLOCK](#) , [CATALOG](#) , [COMPANY](#) , [SDG-CAPTION](#) , [STD](#) ,
[TEAM-MEMBER](#) , [XDOC](#) , [XFILE](#) , [XREF-TARGET](#)

Ist Kontext für: Text

SHORT-NAME~—#PCDATA

SHORT-NAME.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.70 STATE

Description

<**STATE**> represents the current state of the current file according to the workflow, process or configuration management plan.

Formal Description

Hat als Kontext: [COMPANY-REVISION-INFO](#) , [DOC-REVISION](#)

Ist Kontext für: Text

STATE~—#PCDATA

STATE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.71 STATE-1

Description

<**STATE-1**> represents the current state of the current file according to the workflow, process or configuration management plan. This element has the same meaning as <**STATE**> (see [Chapter 4.70 STATE p. 94](#)) except that it is not multilingual in the in the multilingual configuration of the DTD.

Formal Description

Hat als Kontext: [STD](#) , [XDOC](#)

Ist Kontext für: Text

STATE-1 ~ #PCDATA

STATE-1.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.72 STD

Description

Use <STD> to describe a standard within a paragraph.

Example

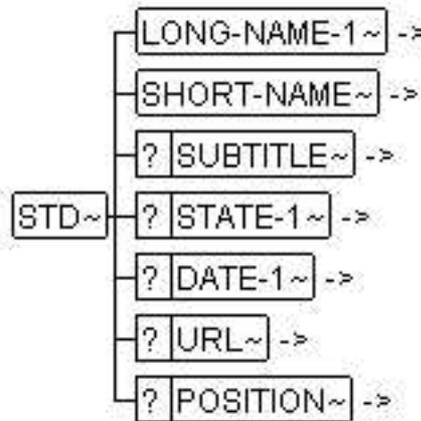
You can describe a standard like the [/ Standard: Code for the representation of names of languages / Subtitle: Alpha-2 code / State: 60.60 / Date: 2002-07-18 / URL: <http://www.iso.ch/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=22109> / Relevant Position: Part 1] in the following way:

```
<STD ID="ID19643804826275">
  <LONG-NAME-1>Code for the representation of names of languages</LONG-NAME-1>
  <SHORT-NAME>ISO 639-1:2002</SHORT-NAME>
  <SUBTITLE>Alpha-2 code</SUBTITLE>
  <STATE-1>60.60</STATE-1>
  <DATE-1>2002-07-18</DATE-1>
  <URL>http://www.iso.ch/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=22109</URL>
  <POSITION>Part 1</POSITION>
</STD>
```

Formal Description

Hat als Kontext: CHANGE , DESC , MSR-QUERY-RESULT-TEXT , P

Ist Kontext für: LONG-NAME-1 , SHORT-NAME , SUBTITLE , STATE-1 , DATE-1 , URL , POSITION



STD.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.

Attribute	Type	Values	Remark
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	STD	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

4.73

SUB

Description

Use `<SUB>` to subscript a text.

E.g. to describe the following texts: \log_{10} , $J_v = 1000 \text{ cd}$

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [IE](#) , [LABEL](#) , [LONG-NAME](#) , [LONG-NAME-1](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)

Ist Kontext für: Text

SUB~—#PCDATA

SUB.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.74 SUBTITLE

Description

This element describes a subtitle of an standard. See also [Chapter 4.72 STD p. 95](#)

Formal Description

Hat als Kontext: [STD](#)

Ist Kontext für: Text

SUBTITLE~—#PCDATA

SUBTITLE.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.75 SUP

Description

Use <SUP> to superscript a text.

E.g. to describe the following texts: $ax^2 + b$, $\text{Sum}^{\text{current}} = 23 \text{ A}$

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [IE](#) , [LABEL](#) , [LONG-NAME](#) , [LONG-NAME-1](#)
 , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)

Ist Kontext für: Text

SUP~|#PCDATA

SUPPING

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.76 TEAM-MEMBER

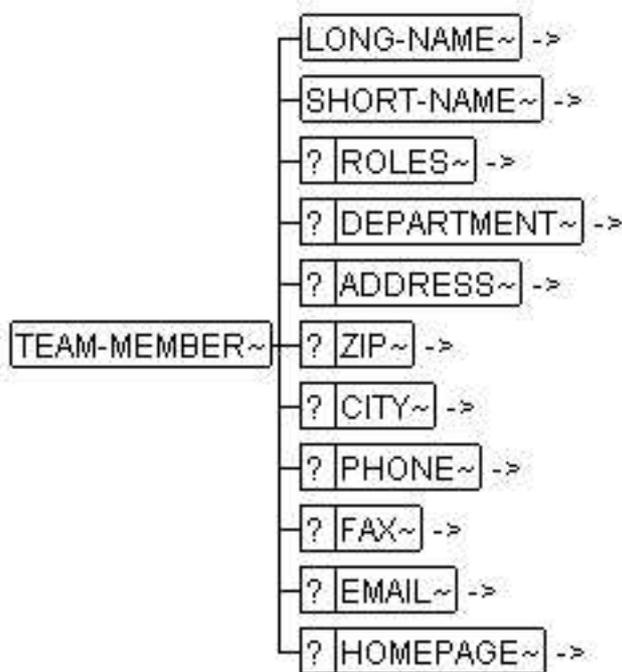
Description

Use <TEAM-MEMBER> to denote the persons which are involved in the production of the document or document part.

Formal Description

Hat als Kontext: [TEAM-MEMBERS](#)

Ist Kontext für: [LONG-NAME](#) , [SHORT-NAME](#) , [ROLES](#) , [DEPARTMENT](#) , [ADDRESS](#) , [ZIP](#) , [CITY](#) , [PHONE](#) , [FAX](#) , [EMAIL](#) , [HOMEPAGE](#)



TEAM-MEMBER.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

Attribute	Type	Values	Remark
[F-ID-CLASS] (fixed)	nmtoken	TEAM-MEMBER	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

4.77 TEAM-MEMBER-REF

Description

`<TEAM-MEMBER-REF>` is the pointer to one particular team member. The content is the `<SHORT-NAME>` of the corresponding `<TEAM-MEMBER>`.

Formal Description

Hat als Kontext: [COMPANY-DOC-INFO](#) , [DOC-REVISION](#)

Ist Kontext für: Text

`TEAM-MEMBER-REF~` — #PCDATA

TEAM-MEMBER-REF.PNG

Attribute	Type	Values	Remark
[ID-REF] (implied)	idref		This attribute contains an existing ID which can be used to identify the related link target by its [ID] attribute.

Attribute	Type	Values	Remark
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	TEAM-MEMBER	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

Attribute	Type	Values	Remark
[HYNAMES] (fixed)	nmtokens	LINKEND ID-REF	HYNAMES is a mapping functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language) The names of the locator attributes e.g. ID-REF used to address the target of a hyperlink can be mapped to names defined in the HYTIME standard, that is LINKEND. This enables to use a generic architectural form processor for link processing and traversal.
[HYTIME] (fixed)	nmtoken	CLINK	HYTIME is the standard attribute to define a HYTIME architectural form. This functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language). This enables to use a generic architectural form processor for link processing and traversals.

4.78 TEAM-MEMBERS

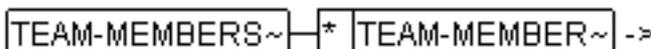
Description

<TEAM-MEMBERS> is the grouping element of all <TEAM-MEMBER> elements. Insert this element if you want to describe a <TEAM-MEMBER>. See also [Chapter 4.76 TEAM-MEMBER p. 99](#)

Formal Description

Hat als Kontext: [COMPANY](#)

Ist Kontext für: [TEAM-MEMBER](#)



Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.79 TOOL

Description

<TOOL> describes the processing tool for an external file defined by <XFILE>

Formal Description

Hat als Kontext: [XFILE](#)

Ist Kontext für: Text

`TOOL~` — #PCDATA

TOOL.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.80 TOOL-VERSION

Description

<TOOL-VERSION> describes the version of a processing tool(defined by <TOOL>) for an external file(<XFILE>).

Formal Description

Hat als Kontext: [XFILE](#)

Ist Kontext für: Text

TOOL-VERSION~—#PCDATA

TOOL-VERSION.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.81

TT

Description

*Technical Term. This element can be used to mark a term as a technical term. The attributes **[TYPE]** or **[USER-DEFINED-TYPE]**(only if **[TYPE="OTHER"]**) describe the type of technical term. Technical terms can be used to produce classified indexes of technical terms, e.g. index of all mentioned tools.*

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [FT](#) , [LABEL](#) , [LONG-NAME](#) , [LONG-NAME-1](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)

Ist Kontext für: Text

TT~—#PCDATA

TT.PNG

Attribute	Type	Values	Remark
[TYPE] (required)	namedtokengroup	<ul style="list-style-type: none"> • SGMLTAG • SGML-ATTRIBUTE • TOOL • PRODUCT • VARIABLE • STATE • PRM • MATERIAL • CONTROL-ELEMENT • CODE • ORGANISATION • OTHER 	<p>The attribute associates an type to an technical term.</p> <p>If the type is "OTHER" the attribute [USER-DEFINED-TYPE] associates the type to the technical term.</p>
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[USER-DEFINED-TYPE] (implied)	cdata		The attribute associates an type to an technical term if type attribute is set to [TYPE="OTHER"] .
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.82 URL

Description

Use <URL> to define URL's, URI's and URN's web addresses.

Formal Description

Hat als Kontext: [MATCHING-DCI](#) , [STD](#) , [XDOC](#) , [XFILE](#)

Ist Kontext für: Text

URL~ — #PCDATA

URL.PING

Attribute	Type	Remark
[MIME-TYPE] (implied)	cdata	Attribute
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.83 USABLE-FOR-VARIANT

Description

This specifies the possible values of the variant criterion denoted by **[NAME]** the object in question can be applied to.

Formal Description

Hat als Kontext: [USABLE-FOR-VARIANTS](#)

Ist Kontext für: [V](#)

USABLE-FOR-VARIANT~ * **V~** ->

USABLE-FOR-VARIANT.PING

Attribut	Type	Remark
[NAME] (implied)	cdata	This is the name of the variant characteristic in question.
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.

Attribut	Type	Remark
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.84 USABLE-FOR-VARIANTS

Description

This denotes all the variants, the object in question can be used for.

Formal Description

Hat als Kontext: [ABLOCK](#)

Ist Kontext für: [USABLE-FOR-VARIANT](#)



USABLE-FOR-VARIANTS.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.85 USED-LANGUAGES

Description

Use <USED-LANGUAGES> to define all additional languages which are used within a document or within a part of the document.

Formal Description

Hat als Kontext: [ADMIN-DATA](#)

Ist Kontext für: Text

USED-LANGUAGES~—#PCDATA

USED-LANGUAGES.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.86

V

Description

Use <V> to denote a single value of the element which contains <V>.

Formal Description

Hat als Kontext: [USABLE-FOR-VARIANT](#)

Ist Kontext für: Text

V~—#PCDATA

V.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry

Attribute	Type	Remark
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.87 VERBATIM

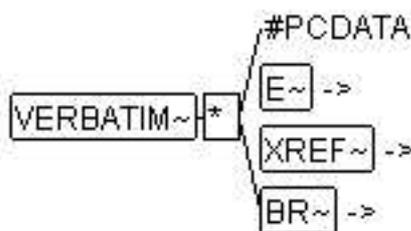
Description

<VERBATIM> is a paragraph in which white-space (in particular blanks and line feeds) is obeyed. This enables basic preformatting to be carried out, which can even be displayed on simple devices. Behavior is the same as PRE in *HTML*.

Formal Description

Hat als Kontext: [REMARK](#)

Ist Kontext für: Text, [E](#) , [XREF](#) , [BR](#)



VERBATIM.PNG

Attribute	Type	Values	Remark
[ALLOW-BREAK] (default)	nmtoken	1	Checks whether page breaks may be included in a <VERBATIM>. NO-ALLOW-BREAK or "0" means that the user is responsible for confining the layout to a page.
[FLOAT] (implied)	namedtokengroup	<ul style="list-style-type: none"> FLOAT NO-FLOAT 	Permits a check, in the case of a <VERBATIM> that cannot be broken up, to determine whether the <VERBATIM> can be shifted elsewhere, so that the page can be used to a greater advantage (compare to flat at TeX).

Attribute	Type	Values	Remark
[HELP-ENTRY] (implied)	cdata		A label which can be used to navigate to the representation of the element defining the [HELP-ENTRY="help-entry-content"] in a help system. E.g. for Microsofts HTML-Help transformations should produce an anchor like <code></code> .
[KEEP-WITH-PREVIOUS] (implied)	namedtokengroup	<ul style="list-style-type: none"> KEEP NO-KEEP 	This makes it compulsory for the current element to be formatted on the same page as the previous element, during page formatting (KEEP). If the value is NO-KEEP, the positioning of the element on the next page relates to the position of the previous element.
[PGWIDE] (implied)	namedtokengroup	<ul style="list-style-type: none"> PGWIDE NO-PGWIDE 	PGWIDE: enables the contents of the current element to be formatted using the entire width of the page. This for example, is beneficial in the case of code containing more than 80 characters per line.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

4.88 XDOC

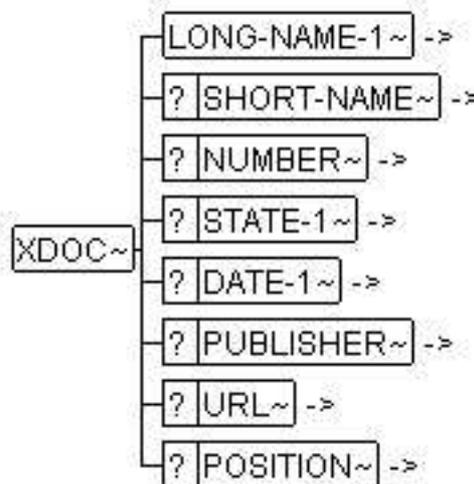
Description

Use <XDOC> to mention a document which is no <STANDARD>. These documents might be books, magazine articles, newspapers or documents in document management systems.

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#)

Ist Kontext für: [LONG-NAME-1](#) , [SHORT-NAME](#) , [NUMBER](#) , [STATE-1](#) , [DATE-1](#) , [PUBLISHER](#) , [URL](#) , [POSITION](#)



XDOC.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry

Attribute	Type	Values	Remark
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	XDOC	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

4.89 XFILE

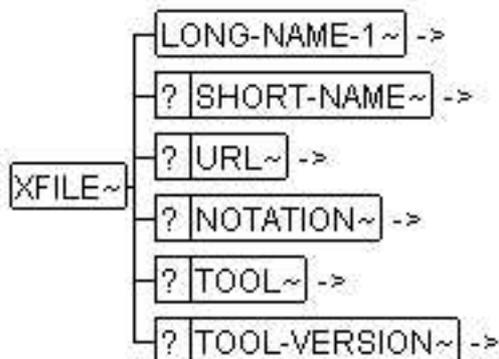
Description

Use `<XFILE>` to mention a file which is no external file(`<XDOC>`) and no standard(`<STD>`). E.g. CAD-files, Matlab-files etc.

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#)

Ist Kontext für: [LONG-NAME-1](#) , [SHORT-NAME](#) , [URL](#) , [NOTATION](#) , [TOOL](#) , [TOOL-VERSION](#)



XFILE.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.

Attribute	Type	Values	Remark
[F-ID-CLASS] (fixed)	nmtoken	XFILE	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF> can only link to an object which is classified as "TEAM-MEMBER" like: <TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER>.

4.90 XREF

Description

Use <XREF> to define a cross reference. The link is established by valid values in the [ID-REF] and [ID-CLASS] attributes. Usually <XREF> has no content. However <XREF> can contain an MSR natural link⁴ in some usecases.

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-ARG](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#) , [VERBATIM](#)

Ist Kontext für: Text

XREF~—#PCDATA

XREF.PNG

⁴ Natural links are made of an sequence of hierarchical object short-names which are able to address the target object . E.g. the address "system1/variable1" points to an <SW-VARIABLE> with the <SHORT-NAME> "variable1" within an <SW-SYSTEM> with <SHORT-NAME> "system1" if this address occurs in an MSRSW instance

Attribute	Type	Values	Remark
[ID-CLASS] (required)	nmtoken		ID Class. XREF can link to all classes of elements. The value of this attribute classifies to which class of link targets the link points to. This expresses the semantic constraint that a link can only link to an object of the given class. E.g. a link: <code><XREF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</XREF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .
[SHOW-CONTENT] (default)	namedtokengroup	<ul style="list-style-type: none"> SHOW-CONTENT NO-SHOW-CONTENT 	If set a formatter should print the content of the <code><XREF></code> element.
[SHOW-RESOURCE-LONG-NAME] (default)	namedtokengroup	<ul style="list-style-type: none"> SHOW-LONG-NAME NO-SHOW-LONG-NAME 	If set a formatter should print the content of the target objects <code><LONG-NAME></code> .
[SHOW-RESOURCE-NUMBER] (default)	namedtokengroup	<ul style="list-style-type: none"> SHOW-NUMBER NO-SHOW-NUMBER 	If set a formatter should print the the target objects number, e.g. chapter or figure numbers
[SHOW-RESOURCE-PAGE] (default)	namedtokengroup	<ul style="list-style-type: none"> SHOW-PAGE NO-SHOW-PAGE 	If set a formatter should print the the target objects page number. This can only be interpreted by an paper formatter.
[SHOW-RESOURCE-SHORT-NAME] (default)	namedtokengroup	<ul style="list-style-type: none"> SHOW-SHORT-NAME NO-SHOW-SHORT-NAME 	If set a formatter should print the content of the target objects <code><SHORT-NAME></code> .
[SHOW-RESOURCE-TYPE] (default)	namedtokengroup	<ul style="list-style-type: none"> SHOW-TYPE NO-SHOW-TYPE 	If set a formatter should print the objects [F-ID-CLASS] string before the link.

Attribute	Type	Values	Remark
[SHOW-SEE] (default)	namedtokengroup	<ul style="list-style-type: none"> • SHOW-SEE • NO-SHOW-SEE 	If set a formatter should print the word "see" before the link.
[EXT-ID-CLASS] (implied)	cdata		This attribute contains the [ID-CLASS] of the external object if [ID-CLASS="EXTERNAL"] . That is the link points to a <NAMELOC F-ID-CLASS="EXTERNAL">
[ID-REF] (implied)	idref		This attribute contains an existing ID which can be used to identify the related link target by its [ID] attribute.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[HYNAMES] (fixed)	nmtokens	LINKEND ID-REF	HYNAMES is a mapping functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language) The names of the locator attributes e.g. ID-REF used to address the target of a hyperlink can be mapped to names defined in the HYTIME standard, that is LINKEND. This enables to use a generic architectural form processor for link processing and traversals.

Attribute	Type	Values	Remark
[HYTIME] (fixed)	nmtoken	CLINK	HYTIME is the standard attribute to define a HYTIME architectural form. This functionality defined in ISO 10744 HYTIME (Hypermedia/Time-based Structuring Language). This enables to use a generic architectural form processor for link processing and traversals.

4.91 XREF-TARGET

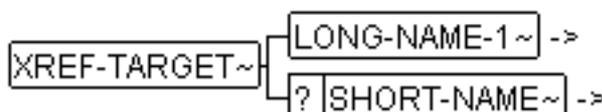
Description

Use <XREF-TARGET> to define an free destination anchor. Link to such an anchor with <XREF>

Formal Description

Hat als Kontext: [CHANGE](#) , [DESC](#) , [MSR-QUERY-RESULT-TEXT](#) , [P](#) , [REASON](#)

Ist Kontext für: [LONG-NAME-1](#) , [SHORT-NAME](#)



XREF-TARGET.PNG

Attribute	Type	Values	Remark
[ID] (implied)	id		This is a unique identifier of the object in the catalog. This must be used to refer to a particular version, if more than one version of the object is mentioned in the catalog.
[S] (implied)	cdata		Signature. Used to store the calculated signature a of an element (e.g. CRC).
[SI] (implied)	cdata		Description of the semantic meaning of an element.
[T] (implied)	cdata		Time Stamp Entry

Attribute	Type	Values	Remark
[VIEW] (implied)	cdata		Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.
[F-ID-CLASS] (fixed)	nmtoken	XREF-TARGET	Fixed ID Class. The value of this attribute classifies links and link targets. This expresses the semantic constraint that a link can only link to an object of the same class. E.g. a link: <code><TEAM-MEMBER-REF ID-REF="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER-REF></code> can only link to an object which is classified as "TEAM-MEMBER" like: <code><TEAM-MEMBER ID="ID1" F-ID-CLASS="TEAM-MEMBER">...</TEAM-MEMBER></code> .

4.92 ZIP

Description

Use `<ZIP>` to define a zip code.

Formal Description

Hat als Kontext: [TEAM-MEMBER](#)

Ist Kontext für: Text

`ZIP~` — #PCDATA

ZIP.PNG

Attribute	Type	Remark
[S] (implied)	cdata	Signature. Used to store the calculated signature a of an element (e.g. CRC).



Attribute	Type	Remark
[SI] (implied)	cdata	Description of the semantic meaning of an element.
[T] (implied)	cdata	Time Stamp Entry
[VIEW] (implied)	cdata	Any term used for a realization of a view-mechanism. With it text elements could be included or excluded in view of an editor or a processing engine.



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Table : version overview

Version	Date	Publisher	State
6	2003-11-03	Herbert Klein (XI-Works)	Release
5	2003-07-30	Christian Martin (Siemens VDO)	Draft
4	2003-06-05	Herbert Klein (XI-Works)	Draft
3	2003-05-06	Herbert Klein (XI-Works)	Draft
2	2003-04-14	Herbert Klein (XI-Works)	Draft

Table : modifications

Version	Change	Related to
6	Inserted the descriptions for <VERBATIM> and several new attributes. Reason: New elements and attributes in catalog_2_2_0.	Content
	Setting the document to CD (Comitee Draft). Reason: Final Inputs regarding the UPD attribute have been inserted.	Content
	Checking and adopting the MSR document rules Reason: Setting the document to CD	Content
5	Introduction of a Sample Scenario for The UPD attribute of the ABLOCK Reason: Review in MSR Meeting	Content
4	Introduction of the Review Results Reason: Review in MSR Meeting	Content
3	Updated according to the change requests mentioned here. Reason: Release of V2.2.0 RC4	Content
2	Inserted all missing descriptions Reason: Release of V2.2.0 RC3	Content

Table : modifications included

Date	Chapter	Change	Related to
Nr. 1, 2003-11-03	Gesamt	Inserted the descriptions for <VERBATIM> and several new attributes. Reason: New elements and attributes in catalog_2_2_0.	Content
		Setting the document to CD (Comitee Draft). Reason: Final Inputs regarding the UPD attribute have been inserted.	Content
		Checking and adopting the MSR document rules Reason: Setting the document to CD	Content
Nr. 2, 2003-07-30	Gesamt	Introduction of a Sample Scenario for The UPD attribute of the ABLOCK Reason: Review in MSR Meeting	Content
Nr. 3, 2003-06-05	Gesamt	Introduction of the Review Results Reason: Review in MSR Meeting	Content
Nr. 4, 2003-05-06	Gesamt	Updated according to the change requests mentioned here. Reason: Release of V2.2.0 RC4	Content
Nr. 5, 2003-04-14	Gesamt	Inserted all missing descriptions Reason: Release of V2.2.0 RC3	Content



References

Standards

Designation: [ISO 639-1:2002]: Code for the representation of names of languages
(Alpha-2 code)

State: 60.60

Date: 2002-07-18

URL: <http://www.iso.ch/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=22109>

Relevant Position: Part 1

[96](#)

External Documents

Designation: Codes for the Representation of Names of Languages

[68](#)

URL: <http://lcweb.loc.gov/standards/iso639-2/termcodes.html>



Index

OTHER

A

ABLOCK [30](#)
ADDRESS [33](#)
ADMIN-DATA [34](#)
AREF [34](#)
AREF-MOVED [37](#)

B

BR [40](#)

C

CATALOG [41](#)
CATEGORY [43](#)
CHANGE [43](#)
CITY [44](#)
COMMENT [45](#)
COMPANIES [46](#)
COMPANY [46](#)
COMPANY-DOC-INFO [49](#)
COMPANY-DOC-INFOS [50](#)
COMPANY-REF [51](#)
COMPANY-REVISION-INFO [53](#)
COMPANY-REVISION-INFOS [53](#)

D

DATE [54](#)
DATE-1 [55](#)
DEPARTMENT [55](#)
DESC [56](#)
DOC-LABEL [57](#)
DOC-REVISION [58](#)
DOC-REVISIONS [59](#)
DOMAIN [60](#)

E

E [60](#)
EMAIL [61](#)

F

FAX [62](#)
FILE [62](#)
FORMATTER-CTRL [63](#)
FORMATTER-CTRLS [64](#)
FT [65](#)

H

HOMEPAGE [65](#)

I

IE [66](#)
ISSUED-BY [67](#)

L

LABEL [68](#)
LANGUAGE [68](#)
LONG-NAME [69](#)
LONG-NAME-1 [70](#)

M

MATCHING-DCI [71](#)
MATCHING-DCIS [72](#)
MODIFICATION [72](#)
MODIFICATIONS [73](#)
MSR-QUERY-ARG [74](#)
MSR-QUERY-NAME [75](#)
MSR-QUERY-PROPS [75](#)
MSR-QUERY-RESULT-TEXT [76](#)
MSR-QUERY-TEXT [77](#)

N

NOTATION [78](#)
NUMBER [79](#)

O

OWNER [80](#)

P

P [80](#)

PHONE [82](#)

POSITION [82](#)

PUBLISHER [83](#)

R

REASON [84](#)
REMARK [85](#)
REVISION-LABEL [85](#)
REVISION-LABEL-P1 [86](#)
REVISION-LABEL-P2 [87](#)
ROLE [87](#)
ROLES [88](#)

S

SD [89](#)
SDG [90](#)
SDG-CAPTION [91](#)
SDGS [92](#)
SHORT-LABEL [93](#)
SHORT-NAME [94](#)
STATE [94](#)
STATE-1 [95](#)
STD [96](#)
SUB [97](#)
SUBTITLE [98](#)
SUP [99](#)

T

TEAM-MEMBER [99](#)
TEAM-MEMBER-REF [101](#)
TEAM-MEMBERS [103](#)
TOOL [104](#)
TOOL-VERSION [104](#)
TT [105](#)



U

URL [106](#)

USABLE-FOR-VARIANT [107](#)

USABLE-FOR-VARIANTS [108](#)

USED-LANGUAGES [108](#)

V

V [109](#)

VERBATIM [110](#)

X

XDOC [112](#)

XFILE [113](#)

XREF [115](#)

XREF-TARGET [118](#)

Z

ZIP [119](#)

Technical Terms

Code

C

CHANGED [13](#), [37](#)

D

DELETED [13](#)

H

History-overview [41](#)

I

ID/IDREF [9](#)

M

MOVED [13](#)

myfile-01-07.txt [13](#)

N

NEW [12](#)

P

program-kit [41](#)

R

REUSED [12](#)

Revision-history [13](#)

T

tool-kit [41](#)

U

UNCHANGED [13](#), [37](#)

UNDEFINED [13](#)

UNUSED [12](#), [13](#), [13](#)

Organisations

W

world wide web consortium [8](#)

www.w3c.org [8](#)

OTHER

S

Special Data Group [90](#)

Products

C

catalog dtd [8](#)

D

DCI [71](#)

H

HTML [110](#)

R

RDF [8](#)

X

XML [8](#), [9](#)

SGML Attributes

A

ALLOW-BREAK [110](#)

C

CATEGORY [9](#), [34](#), [34](#), [35](#), [37](#), [37](#), [38](#)

COLOR [60](#), [61](#)

CREATION-DATE [63](#)

CREATOR [42](#), [63](#)

CREATOR-VERSION [42](#)

D

DATE [31](#)

DOMAIN [9](#), [35](#), [35](#), [37](#), [38](#)

E

EXT-ID-CLASS [117](#)

F

F-CHILD-TYPE [48](#), [89](#)

F-CM-TOOL-ID [42](#)

F-DTD-BUILD [42](#)

F-DTD-VERSION [42](#)

F-ID-CLASS [33](#), [36](#), [39](#), [48](#), [52](#), [89](#),
[92](#), [97](#), [101](#), [102](#), [113](#), [115](#), [116](#), [119](#)

F-NAMESPACE [49](#)

F-PUBID [42](#)

FLOAT [110](#)

FONT [61](#)

G

GID [89](#), [90](#)

H

HELP-ENTRY [81](#), [111](#)

HELP-ENTRY="help-entry-content"
[111](#)

HYNAMES [37](#), [40](#), [52](#), [103](#), [117](#)

HYTIME [37](#), [40](#), [52](#), [103](#), [118](#)

I

ID [9](#), [31](#), [34](#), [35](#), [37](#), [38](#), [47](#), [51](#), [89](#),
[90](#), [91](#), [91](#), [96](#), [100](#), [101](#), [112](#), [114](#),
[117](#), [118](#)

ID-CLASS [89](#), [89](#), [89](#), [115](#), [116](#), [117](#)

ID-CLASS="EXTERNAL" [117](#)

ID-REF [34](#), [35](#), [37](#), [38](#), [51](#), [89](#), [89](#),
[89](#), [101](#), [115](#), [117](#)

K

KEEP-WITH-PREVIOUS [81](#), [111](#)



- L**
L 63
LABEL 9, 9, 32, 35, 35, 35, 38, 38
- M**
MIME-TYPE 63, 107
- N**
NAME 107, 107
NEW 12
- P**
PGWIDE 111
- R**
REV 9, 9, 30, 32, 32, 35, 35, 35, 36, 37, 38, 38, 38
ROLE 47
- S**
S 32, 33, 34, 36, 39, 41, 42, 43, 44, 45, 45, 46, 47, 49, 50, 51, 53, 54, 54, 55, 56, 57, 58, 59, 59, 60, 61, 61, 62, 63, 64, 64, 65, 66, 66, 67, 68, 69, 70, 71, 71, 72, 73, 74, 74, 75, 76, 77, 78, 79, 79, 80, 81, 82, 83, 83, 84, 85, 86, 86, 87, 88, 88, 90, 90, 91, 93, 93, 94, 95, 95, 97, 98, 98, 99, 100, 102, 104, 104, 105, 106, 107, 107, 108, 109, 109, 111, 112, 114, 117, 118, 119
SHOW-CONTENT 116
SHOW-RESOURCE-LONG-NAME 116
SHOW-RESOURCE-NUMBER 116
SHOW-RESOURCE-PAGE 116
SHOW-RESOURCE-SHORT-NAME 116
SHOW-RESOURCE-TYPE 116
SHOW-SEE 117
SI 13, 32, 33, 34, 36, 39, 41, 42, 43, 44, 45, 45, 46, 47, 50, 50, 51, 53, 54, 54, 55, 56, 57, 58, 59, 59, 60, 61, 61, 62, 63, 63, 64, 64, 65, 66, 67, 67, 68, 69, 70, 71, 71, 72, 73, 74, 74, 74, 74, 75, 76, 77, 78, 79, 79, 80, 81, 82, 83, 83, 84, 85, 86, 86, 87, 88, 88, 90, 91, 91, 93, 93,
- T**
T 32, 33, 34, 36, 39, 41, 42, 43, 44, 45, 45, 46, 47, 50, 51, 51, 53, 54, 55, 55, 56, 57, 58, 59, 59, 60, 61, 62, 62, 63, 64, 65, 65, 66, 67, 67, 68, 69, 70, 71, 71, 72, 73, 74, 74, 75, 76, 77, 78, 79, 79, 80, 81, 82, 83, 83, 84, 85, 86, 86, 87, 88, 88, 90, 91, 91, 93, 93, 94, 95, 95, 97, 98, 98, 99, 100, 102, 104, 104, 105, 106, 107, 108, 108, 109, 109, 111, 112, 114, 117, 118, 120
TARGET-SYSTEM 63, 64
TYPE 60, 61, 63, 67, 73, 105, 106
TYPE="OTHER" 105, 106
- U**
UPD 12, 30, , 32, 32, 37
USER-DEFINED-TYPE 105, 106, 106
- V**
VAR 9, 9, 30, 32, 32, 35, 35, 35, 36, 37, 38, 38, 39
VIEW 32, 33, 34, 36, 39, 41, 42, 43, 44, 45, 45, 46, 47, 50, 51, 51, 53, 54, 55, 55, 56, 57, 58, 59, 59, 60, 61, 62, 62, 63, 64, 65, 65, 66, 67, 67, 68, 69, 70, 71, 72, 72, 73, 74, 75, 75, 76, 77, 78, 79, 80, 80, 82, 82, 83, 83, 84, 85, 86, 86, 87, 88, 88, 90, 91, 92, 93, 93, 94, 95, 95, 97, 98, 98, 99, 100, 102, 104, 104, 105, 106, 107, 108, 108, 109, 110, 111, 113, 114, 117, 119, 120
- ADMIN-DATA** 10, 13, 18, 30, 34, 46
AREF 9, 9, 9, 21, 21, 21, 30, 34, 34, 35, 38, 41
AREF-MOVED 37, 37
- C**
CATALOG 9, 9, 41, 43, 57
CATEGORY 9, 9, 9, 13, 34, 35, 35, 37, 38, 41, 43
CHANGE 43
CITY 44
COMMENT 45
COMPANIES 9, 46, 67
COMPANY 46, 47, 47
COMPANY-DOC-INFO 30, 49
COMPANY-DOC-INFOS 50
COMPANY-REF 51
COMPANY-REVISION-INFO 30, 53
COMPANY-REVISION-INFOS 53
- D**
DATE 54, 59
DATE-1 55
DEPARTMENT 55
DESC 56, 91
DOC-LABEL 57
DOC-REVISION 13, 58, 59, 59
DOC-REVISIONS 59, 59, 59
DOMAIN 9, 60
- E**
EMAIL 61
- F**
FAX 62
FILE 12, 12, 13, 22, 30, 62, 62
FT 65
- G**
GID 89
- SGML Elements**
- A**
ABLOCK 8, 9, 9, 9, 9, 12, 12, 12, 12, 12, 12, 13, 13, 13, 13, 21, 21, 21, 21, 30, 34, 34, 34, 34, 35, 35, 35, 35, 37, 37, 37, 37, 37, 38, 38
ADDRESS 33



H	PHONE 82	T
HOMEPAGE 65	R	TEAM-MEMBER 67 , 99 , 101 , 103 , 103
L	REASON 84	TEAM-MEMBER-REF 46 , 67 , 101
LANGUAGE 68	REMARK 85	TEAM-MEMBERS 103
LONG-NAME 69 , 90 , 91 , 116	REVISION-LABEL 13 , 85	TOOL 104
LONG-NAME-1 70	REVISION-LABEL-P1 86	U
M	REVISION-LABEL-P12 87	URL 71 , 106
MATCHING-DCI 71	ROLE 87	USED-LANGUAGES 108
MATCHING-DCIS 72	ROLES 88	V
MODIFICATION 72 , 73 , 73	S	V 109 , 109
MODIFICATIONS 73	SD 89 , 89 , 90 , 90 , 90	VERBATIM 121 , 85 , 110 , 110 , 110 , 110
MSR-QUERY-ARG 74	SDG 9 , 9 , 30 , 90 , 90 , 90 , 90 , 91	X
MSR-QUERY-PROPS 77	SDG-CAPTION 90	XDOC 112 , 113
MSR-QUERY-RESULT-TEXT 77	SHORT-NAME 9 , 9 , 34 , 35 , 35 , 37 , 37 , 38 , 90 , 91 , 94 , 94 , 101 , 116	XFILE 104 , 104 , 113
N	STANDARD 112	XREF 115 , 115 , 115 , 116 , 118
NAMELOC F-ID- CLASS="EXTERNAL" 117	STATE 94 , 95	XREF-TARGET 118
NOTATION 78	STATE-1 95	Z
P	STD 96 , 113	ZIP 119
P 80 , 81 , 85	SUB 97	
	SUP 99	