MSR Engineering Documentation (MEDOC)
Elements and attributes of MSRFMEA.DTD

Scope: Failure Mode and Effects Analysis

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Abstract

This is a reference document for *MSRFMEA DTD* describing all elements.
MSRFMEA DTD is part of the MSR development documentation MEDOC.

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Companies

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1 How to read this document

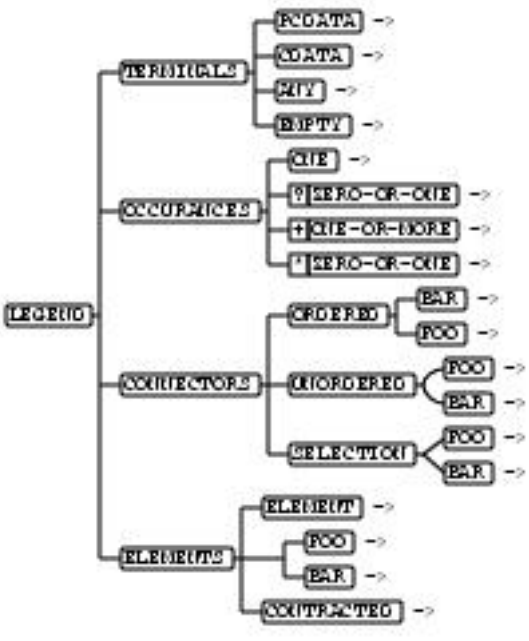
The following conventions apply

This document is written using *MSRREP DTD*. The following conventions apply to this document:

<msrsw>	SGML elements are noted as technical term **[type]**=*SGMLTAG*.
[type]	SGML attributes are noted as technical term **[type]**=*SGML-attribute*.
sgml-attribute	Values of SGML attributes or discrete values for elements are noted as technical term **[type]**=*code*
ASAP2	The considered languages resp. DTDs are marked as technical term **[type]**=*product*.
ASAP	The commitees are noted as **[type]**=*organization*
ECU	Objects in general are marked as technical terms **[type]**=*other*. This might be automotive equipments general objects such as variables etc.

Graphical conventions used in DTD diagrams

The structure of DTDs is shown in the MSR document as DTD diagrams (see Figure 1 convention in DTD diagrams p. 24).



legend.bmp

Figure 1: convention in DTD diagrams

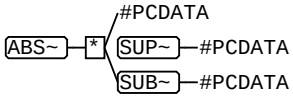
The meaning of the symbols is:

PCDATA	**Processable Character Data (PCDATA)** Data that consists of zero or more characters of both text and markup. PCDATA is a declared content keyword. PCDATA is used to indicate that all markup delimiters defined in the SGML declaration will be recognized by the parser as markup in the given element rather than data characters.
RCDATA	**Replaceable Character Data (RCDATA)** is data that consists of zero or more characters, in which references to substitutions are not recognized (i.e. RCDATA may contain text and entity references, but no sub-elements). See also: CDATA PCDATA.
CDATA	**Character Data (CDATA)** consists of zero or more text characters, where no markup of any kind is recognized. CDATA is an SGML term. Note that character references are allowed in a CDATA entity (substitution) but not in CDATA content.
ANY	a terminal type indicating that the object may contain text or any element defined in the model.
EMPTY	a terminal type keyword used to indicate that there is no data (i.e. no content, sub-elements or end-tags) for the object allowed in the document instance. This keyword is often used to describe elements that are placeholders or are pointers to external or system-generated data.
One	indicates that the element or the element group occurs exactly once
ZERO-OR-ONE	indicates that the element or the element group is optional
ONE-OR-MORE	indicates that the element or the element group occurs multiple times but at least once
ZERO-OR-MORE	indicates that the element or the element group occurs multiple times but also can be missed (optional)
ORDERED	a connector used to specify that the sibling objects must appear in the document in the order shown in the model
UNORDERED	a connector used to specify that the sibling objects can appear in any order in the document.
SELECTION	a connector used to specify that only one of the sibling objects can appear in the document.
ELEMENT	indicates a single SGML structure element
COLLAPSED	indicates, that the content of the element is not displayed here

2 Allgemeine Projektdaten

1 ABS ... ADMIN-DATA

1.1 ABS



images/ABS.bmp

Figure 2: DTD-diagram for ABS

Child elements **<sup> <sub>**

parent elements **<prm-char>**

Table 1: Attributes for ABS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Absolute value for parameter characteristics. See parameter model (**<sw-prm>**).

Example

```
prm
   long-namelong designation/long-name
   short-nameshort designation/short-name
   prm-char
      abs10/abs
      tol5tol
      unitC/unit
   /prm-char
/prm
prm
   long-namelong designation/long-name
   short-nameshort designation/short-name
   prm-char
      min0/min
      typ5typ
      max0/max
      unitC/unit
   /prm-char
/prm
```

1.2 ACCEPTANCE-COND

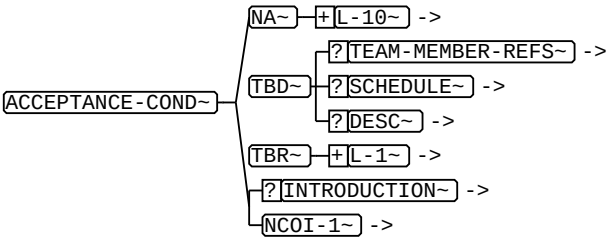


Figure 3: DTD-diagram for ACCEPTANCE-COND

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 2: Attributes for ACCEPTANCE-COND

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains a description of the acceptance conditions of this project.

1.3 ADD-SPEC

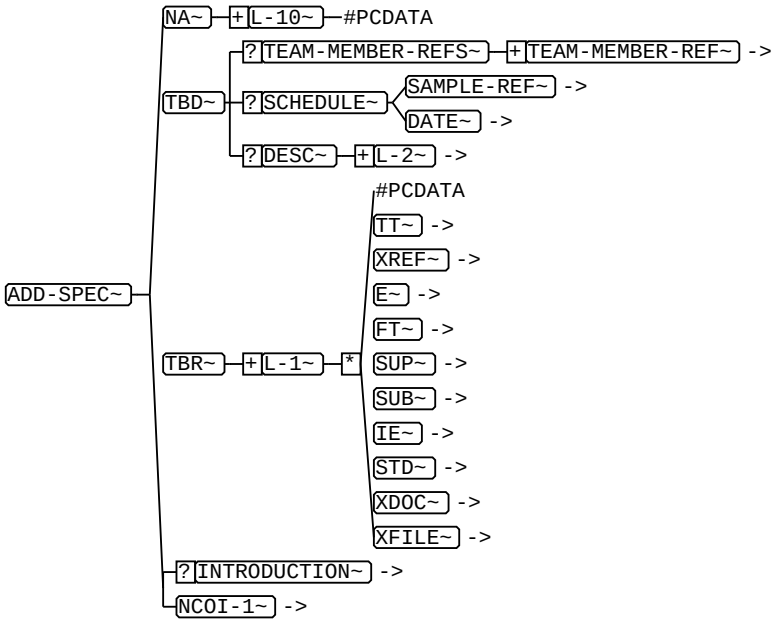


Figure 4: DTD-diagram for ADD-SPEC

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

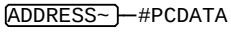
Table 3: Attributes for ADD-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element allows to give additional specifications for which no explicit structure exists. This element usually enforces another chapter in printed material. In opposite to **<add-info>**, **<add-spec>** is used as a substitute if no structure exists for the topic, while **<add-info>** is used where an existing structure is not appropriate.

Example

1.4 ADDRESS



images/ADDRESS.bmp

Figure 5: DTD-diagram for ADDRESS

Child elements none

parent elements **<team-member>**

Table 4: Attributes for ADDRESS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of the address of a team member.

1.5 ADMIN-DATA

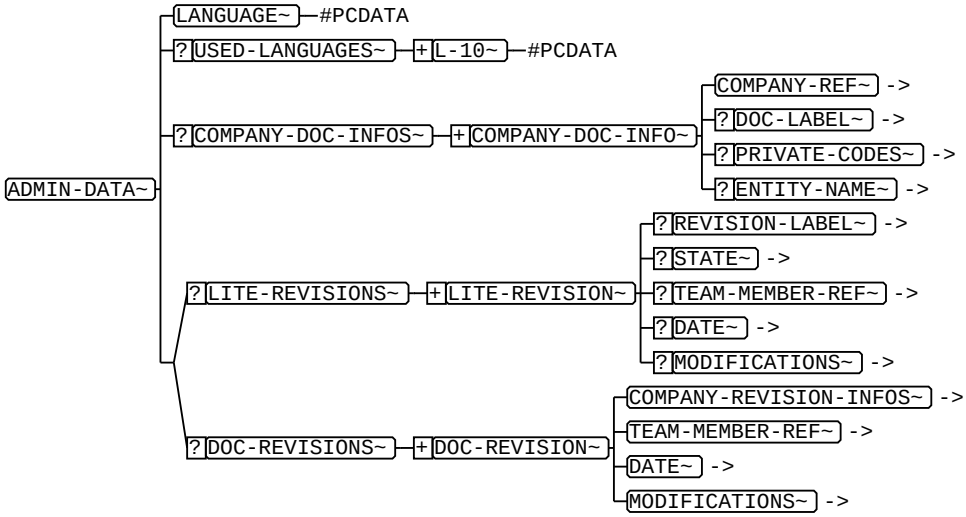


Figure 6: DTD-diagram for ADMIN-DATA

Child elements **<language> <used-languages> <company-doc-infos> <lite-revisions> <doc-revisions>**

parent elements **<chapter> <fm-action-type> <fm-fault> <fm-fault-type> <fm-function> <fm-function-type> <fm-structure> <fm-structure-element> <general-project-data> <msrfmea>**

Table 5: Attributes for ADMIN-DATA

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	language:selection	
[S]	cdata	implied		
[T]	cdata	implied		

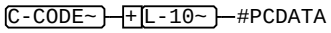
Description This element allows to specifiy adminstrative information regarding the sub-structure defined by the parent. This information may be versioning, fragmentation etc. The information rather covers the administration of the SGML-instance than the administration of the described subjects.

IQ-Fmea uses this element to describe the languages used in the instance.

Example
```
admin-data
    languagede/language
    doc-revisions>
       doc-revision>
          company-revision-infos>
             company-revision-info>
                company-ref>msr/company-ref>
                revision-label>10.4/revision-label>
                state>wd/state>
             /company-revision-info>
          /company-revision-infos>
          team-member-ref>/team-member-ref>
          date>1.1.99/date>
          modifications>
             modification type=”part-related”>
                change>Introduced new Architecture/change>
                reason>Customer request/reason>
             /modification>
          /modifications>
       /doc-revision>
    /doc-revisions>
/admin-data>
```

2 C-CODE ... COVER-SHEET-STYLE

2.1 C-CODE



images/C-CODE.bmp

Figure 7: DTD-diagram for C-CODE

Child elements **<l-10>**

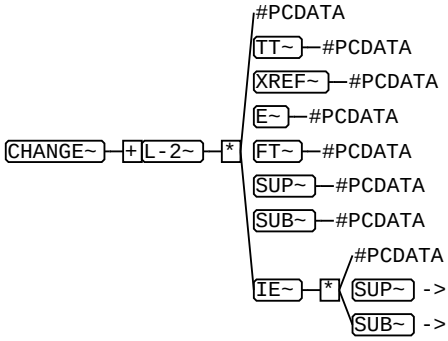
parent elements **<formula>**

Table 6: Attributes for C-CODE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element is used to specify the code of the formula transferred to the programming language C.

2.2 CHANGE



images/CHANGE.bmp

Figure 8: DTD-diagram for CHANGE

Child elements **<l-2>**

parent elements **<modification>**

Table 7: Attributes for CHANGE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Describes the change of a document

2.3 CHAPTER

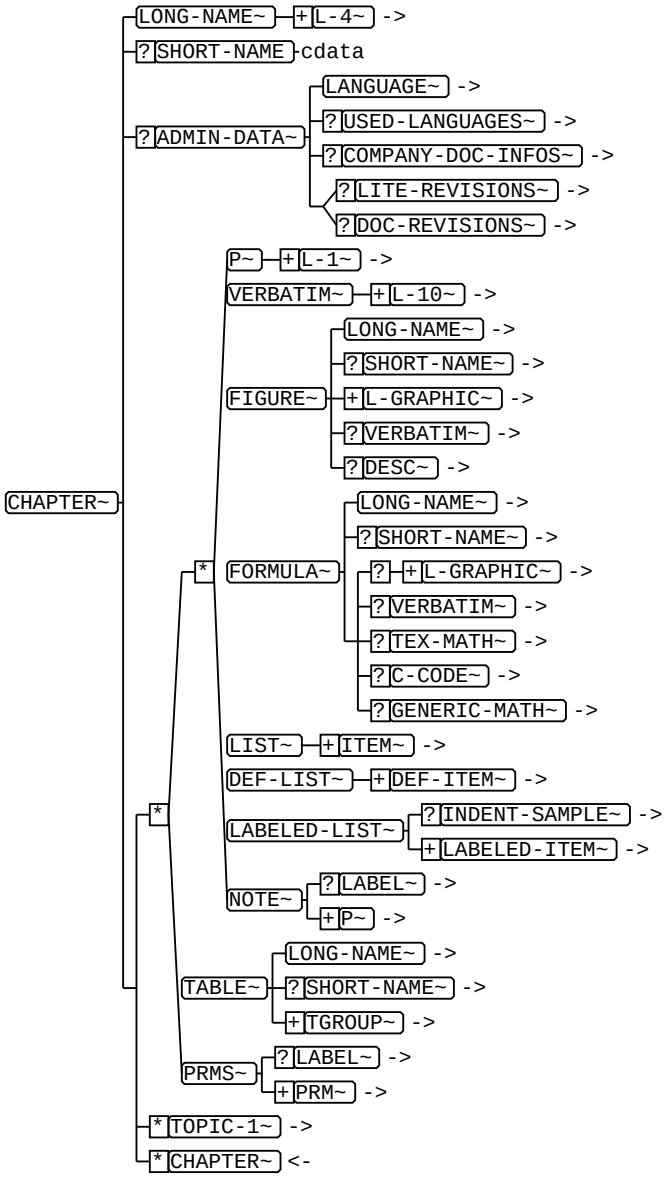


Figure 9: DTD-diagram for CHAPTER

Child elements **<long-name> <short-name> <admin-data> <p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table> <prms> <topic-1> <chapter>**

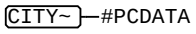
parent elements **<chapter> <ncoi-1>**

Table 8: Attributes for CHAPTER

Name	Type	Class	Value	Remark
[BREAK]	nmtkgrp	implied	BREAK NO-BREAK	
[F-ID-CLASS]	name	fixed	CHAPTER	
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description This element is used to write one or more not content oriented chapters. There are also sub chapters possible.

2.4 CITY



images/CITY.bmp

Figure 10: DTD-diagram for CITY

Child elements none

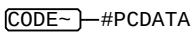
parent elements **<team-member>**

Table 9: Attributes for CITY

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of the city of the address.

2.5 CODE



images/CODE.bmp

Figure 11: DTD-diagram for CODE

Child elements none

parent elements **<variant-char> <variant-char-value> <variant-def>**

Table 10: Attributes for CODE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains the definition of the code.

2.6 COLSPEC

images/COLSPEC.bmp

Figure 12: DTD-diagram for COLSPEC

Child elements none

parent elements **<tfoot> <tgroup> <thead>**

Table 11: Attributes for COLSPEC

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	implied	LEFT RIGHT CEN-TER JUSTIFY CHAR	
[CHAR]	cdata	implied		
[CHAROFF]	nutoken	implied		
[COLNAME]	nmtoken	implied		
[COLNUM]	number	implied		
[COLSEP]	number	implied		
[COLWIDTH]	cdata	implied		
[ROWSEP]	number	implied		
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifies a column, a vertical portion of a <entry>. The default values come from the <tgroup>, <thead> or <tfoot> starting the current group. Each <colspec> is for a single column, so it properly has a column number, column, implicitly in order starting from 1, and an optional colname by which it is known when used in any <spanspec> or in <entry>. A <colspec> set on <thead or <tfoot> should be complete for all columns. It overrides those on the containing <tgroup> and applies to just the <thead> or <tfoot>. If there is no <colspec> used within <thead> or <tfoot>, then the <colspec> of the containing <tgroup> is used. <colspec>s from the containing <tgroup> apply to <tbody>.

2.7 COMPANIES

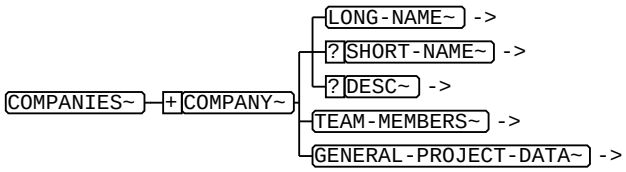


Figure 13: DTD-diagram for COMPANIES

Child elements **<company>**

parent elements **<fm-head>**

Table 12: Attributes for COMPANIES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definitions of some companies.

2.8 COMPANY

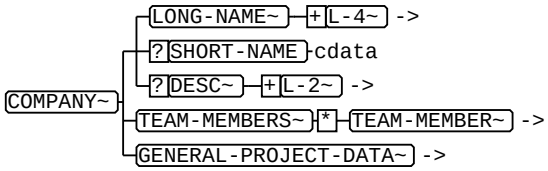


Figure 14: DTD-diagram for COMPANY

Child elements **<long-name> <short-name> <desc> <team-members> <general-project-data>**

parent elements **<companies>**

Table 13: Attributes for COMPANY

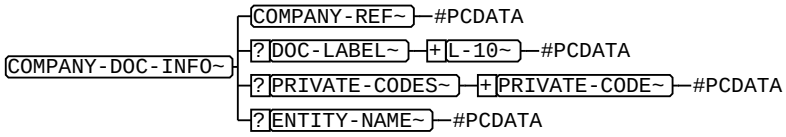
Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	long-name:selection	
[F-ID-CLASS]	name	fixed	COMPANY	
[F-NAMESPACE]	names	fixed	SAMPLE TEAM-MEMBER VARIANT-DEF VARIANT-CHAR	
[ID]	id	required		

Table 13 (Cont.): Attributes for COMPANY

Name	Type	Class	Value	Remark
[ROLE]	nmtkgrp	required	MANUFACTURER SUPPLIER	
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a company with all team members for this project.

2.9 COMPANY-DOC-INFO



images/COMPANY-DOC-INFO.bmp

Figure 15: DTD-diagram for COMPANY-DOC-INFO

Child elements **<company-ref> <doc-label> <private-codes> <entity-name>**

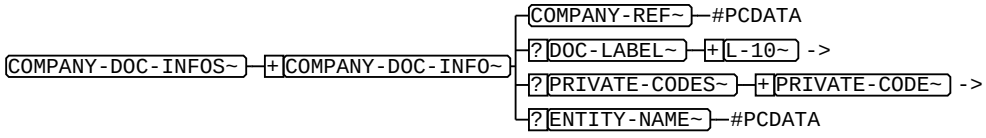
parent elements **<company-doc-infos>**

Table 14: Attributes for COMPANY-DOC-INFO

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Company specific document informations.

2.10 COMPANY-DOC-INFOS



images/COMPANY-DOC-INFOS.bmp

Figure 16: DTD-diagram for COMPANY-DOC-INFOS

Child elements **<company-doc-info>**

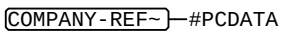
parent elements **<admin-data>**

Table 15: Attributes for COMPANY-DOC-INFOS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Company specific document information.

2.11 COMPANY-REF



images/COMPANY-REF.bmp

Figure 17: DTD-diagram for COMPANY-REF

Child elements none

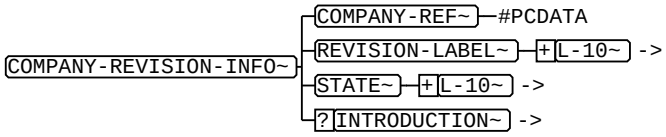
parent elements **<company-doc-info> <company-revision-info>**

Table 16: Attributes for COMPANY-REF

Name	Type	Class	Value	Remark
[COMPANY]	idref	required		
[HYNAMES]	names	fixed	LINKEND COMPA-NY	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

Description Reference to a company (supplier).

2.12 COMPANY-REVISION-INFO



images/COMPANY-REVISION-INFO.bmp

Figure 18: DTD-diagram for COMPANY-REVISION-INFO

Child elements **<company-ref> <revision-label> <state> <introduction>**

parent elements **<company-revision-infos>**

Table 17: Attributes for COMPANY-REVISION-INFO

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	state:selection	
[S]	cdata	implied		
[T]	cdata	implied		

Description Company specific document revision.

2.13 COMPANY-REVISION-INFOS

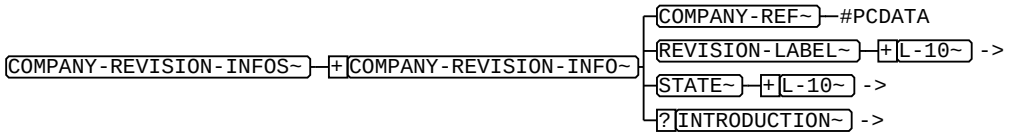


Figure 19: DTD-diagram for COMPANY-REVISION-INFOS

Child elements **<company-revision-info>**

parent elements **<doc-revision>**

Table 18: Attributes for COMPANY-REVISION-INFOS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Company specific document revisions.

2.14 COND

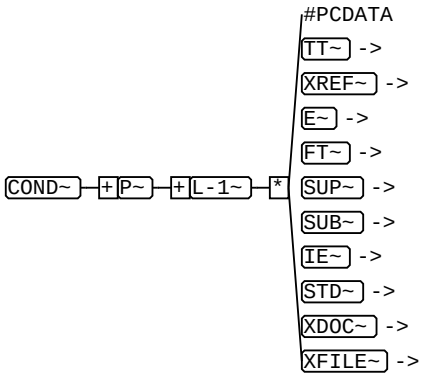


Figure 20: DTD-diagram for COND

Child elements **<p>**

parent elements **<prm-char>**

Table 19: Attributes for COND

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Defines specific conditions under this parameter characteristic is allowed.

2.15 COVER-SHEET-STYLE

Figure 21: DTD-diagram for COVER-SHEET-STYLE

Child elements none

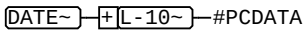
parent elements **<user-cover-sheet>**

Table 20: Attributes for COVER-SHEET-STYLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

3 DATE ... DOC-REVISIONS

3.1 DATE



images/DATE.bmp

Figure 22: DTD-diagram for DATE

Child elements **<l-10>**

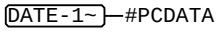
parent elements **<doc-revision> <lite-revision> <schedule>**

Table 21: Attributes for DATE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifies a date. The specification of the date is only possible in one language.
- last handling - publishing - creation.

3.2 DATE-1



images/DATE-1.bmp

Figure 23: DTD-diagram for DATE-1

Child elements none

parent elements **<fm-task-schedule> <fm-task-sets> <std> <xdoc>**

Table 22: Attributes for DATE-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description With this element it is possible to specify a date in several languages.

3.3 DEF

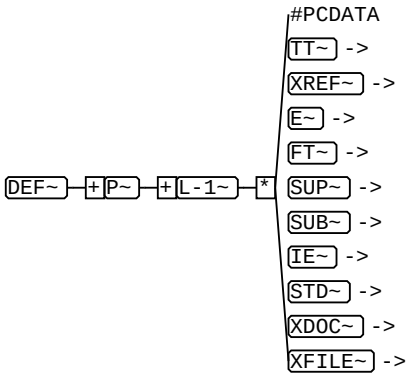


Figure 24: DTD-diagram for DEF

Child elements **<p>**

parent elements **<def-item>**

Table 23: Attributes for DEF

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This is a element of an definition list

3.4 DEF-ITEM

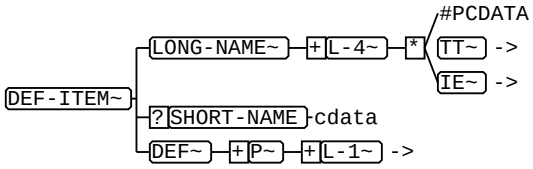


Figure 25: DTD-diagram for DEF-ITEM

Child elements **<long-name> <short-name> <def>**

parent elements **<def-list>**

Table 24: Attributes for DEF-ITEM

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	DEF-ITEM	

Table 24 (Cont.): Attributes for DEF-ITEM

Name	Type	Class	Value	Remark
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

3.5 DEF-LIST

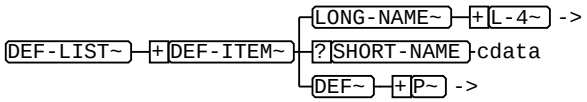


Figure 26: DTD-diagram for DEF-LIST

Child elements **<def-item>**

parent elements **<chapter> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 25: Attributes for DEF-LIST

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element allows the user to define a list.

3.6 DEMARCATION-OTHER-PROJECTS

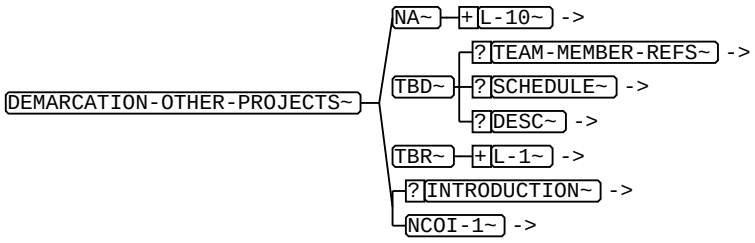


Figure 27: DTD-diagram for DEMARCATION-OTHER-PROJECTS

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

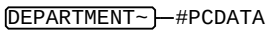
parent elements **<general-project-data>**

Table 26: Attributes for DEMARCATION-OTHER-PROJECTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifies the demarcation and differences to other projects.

3.7 DEPARTMENT



images/DEPARTMENT.bmp

Figure 28: DTD-diagram for DEPARTMENT

Child elements none

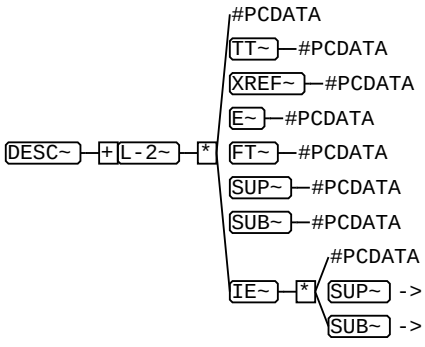
parent elements **<team-member>**

Table 27: Attributes for DEPARTMENT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains the name of the department.

3.8 DESC



images/DESC.bmp

Figure 29: DTD-diagram for DESC

Child elements **<l-2>**

parent elements **<company> <figure> <fm-action> <fm-action-type> <fm-fault> <fm-fault-type> <fm-form-sheet> <fm-function> <fm-function-type> <fm-significance> <fm-structure> <fm-structure-element> <fm-task-schedule> <fm-task-set> <fm-task-sets> <fm-task-sets> <fm-team> <fm-tool> <misc> <prm> <tbd> <team-member>**

Table 28: Attributes for DESC

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Short text description of the object.

3.9 DIR-HAND-OVER-DOC-DATA

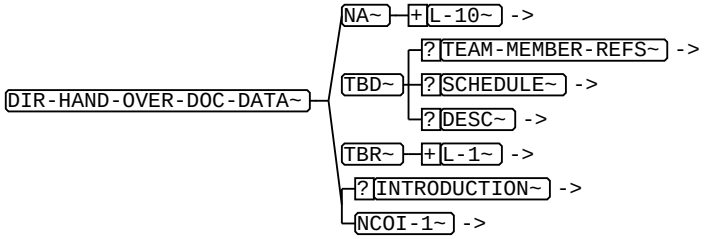


Figure 30: DTD-diagram for DIR-HAND-OVER-DOC-DATA

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 29: Attributes for DIR-HAND-OVER-DOC-DATA

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Directory of all documents which are hand-over the project-partner.

3.10 DOC-LABEL

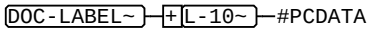


Figure 31: DTD-diagram for DOC-LABEL

Child elements **<l-10>**

parent elements **<company-doc-info>**

Table 30: Attributes for DOC-LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Name of the document

3.11 DOC-REVISION

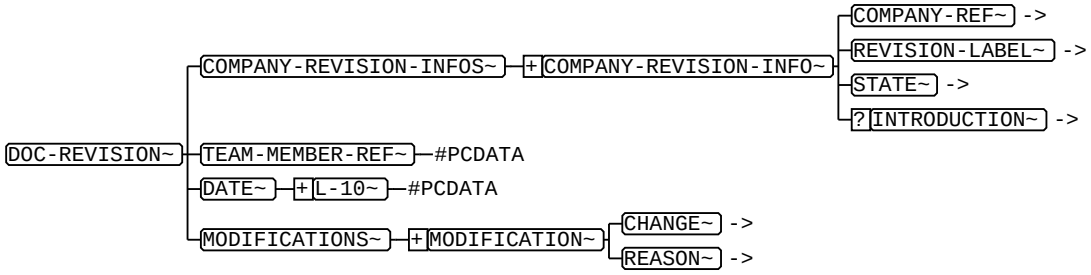


Figure 32: DTD-diagram for DOC-REVISION

Child elements **<company-revision-infos> <team-member-ref> <date> <modifications>**

parent elements **<doc-revisions>**

Table 31: Attributes for DOC-REVISION

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	date:date	
[S]	cdata	implied		
[T]	cdata	implied		

Description This element describes a document revision

3.12 DOC-REVISIONS

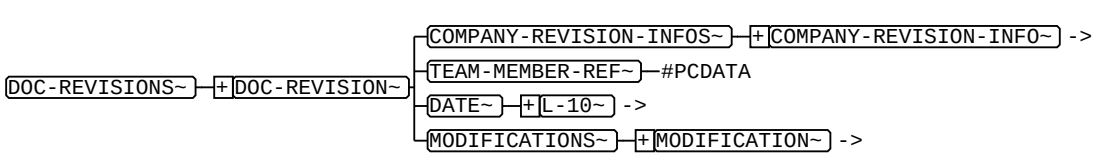


Figure 33: DTD-diagram for DOC-REVISIONS

Child elements **<doc-revision>**

parent elements **<admin-data>**

Table 32: Attributes for DOC-REVISIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element describes the document revisions

4 E ... ENTRY

4.1 E

images/E.bmp

Figure 34: DTD-diagram for E

Child elements none

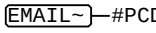
parent elements **<l-1> <l-2>**

Table 33: Attributes for E

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TYPE]	nmtkgrp	default	BOLD BOLD ITALIC	

Description Identifies the scope of emphasized information.

4.2 EMAIL



images/EMAIL.bmp

Figure 35: DTD-diagram for EMAIL

Child elements none

parent elements **<team-member>**

Table 34: Attributes for EMAIL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of the email-address.

4.3 ENTITY-NAME

images/ENTITY-NAME.bmp

Figure 36: DTD-diagram for ENTITY-NAME

Child elements none

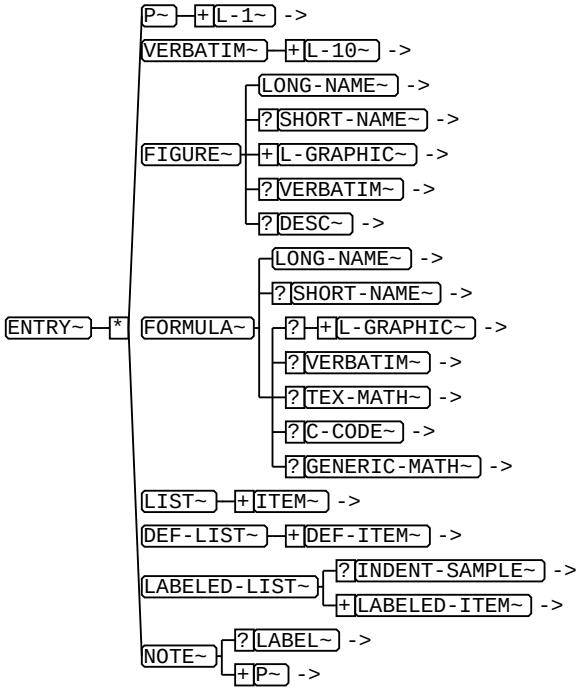
parent elements **<company-doc-info>**

Table 35: Attributes for ENTITY-NAME

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Filename of the document fragment.

4.4 ENTRY



images/ENTRY.bmp

Figure 37: DTD-diagram for ENTRY

Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note>**

parent elements **<row>**

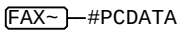
Table 36: Attributes for ENTRY

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	implied	LEFT RIGHT CENTER JUSTIFY CHAR	
[CHAR]	cdata	implied		
[CHAROFF]	nutoken	implied		
[COLNAME]	nmtoken	implied		
[COLSEP]	number	implied		
[MOREROWS]	number	default	0	
[NAMEEND]	nmtoken	implied		
[NAMEST]	nmtoken	implied		
[ROTATE]	number	default	0	
[ROWSEP]	number	implied		
[S]	cdata	implied		
[SPANNAME]	nmtoken	implied		
[T]	cdata	implied		
[VALIGN]	nmtkgrp	default	TOP TOP BOTTOM MIDDLE	

Description Identifies an entry in a table. Default values come from the <table>, <tgroup>, <colspec>, <spanspec>, <thead>, <tbody> or <row>; attributes. An entry not specified by a <spanspec> get the defaults from its starting column.

5 FAX ... FM-EXTERNAL-ACTIONS-DETECT

5.1 FAX



images/FAX.bmp

Figure 38: DTD-diagram for FAX

Child elements none

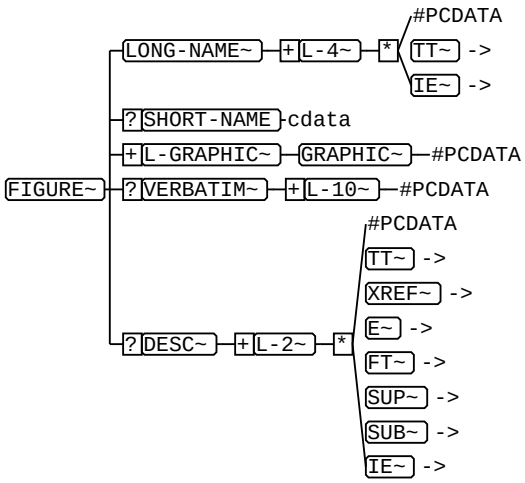
parent elements **<team-member>**

Table 37: Attributes for FAX

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Contents the fax number of an address.

5.2 FIGURE



images/FIGURE.bmp

Figure 39: DTD-diagram for FIGURE

Child elements **<long-name> <short-name> <l-graphic> <verbatim> <desc>**

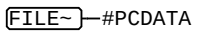
parent elements **<chapter> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 38: Attributes for FIGURE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FIGURE	
[FLOAT]	nmtkgrp	implied	FLOAT NO-FLOAT	
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Identifies a figure in the document.

5.3 FILE



images/FILE.bmp

Figure 40: DTD-diagram for FILE

Child elements none

parent elements **<std> <xdoc> <xfile>**

Table 39: Attributes for FILE

Name	Type	Class	Value	Remark
[FILENAME]	cdata	required		
[NOTATION]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		
[TOOL]	cdata	required		
[TOOL-VERSION]	cdata	required		

Description Definition of a filename (complete path).

5.4 FM-ACTION

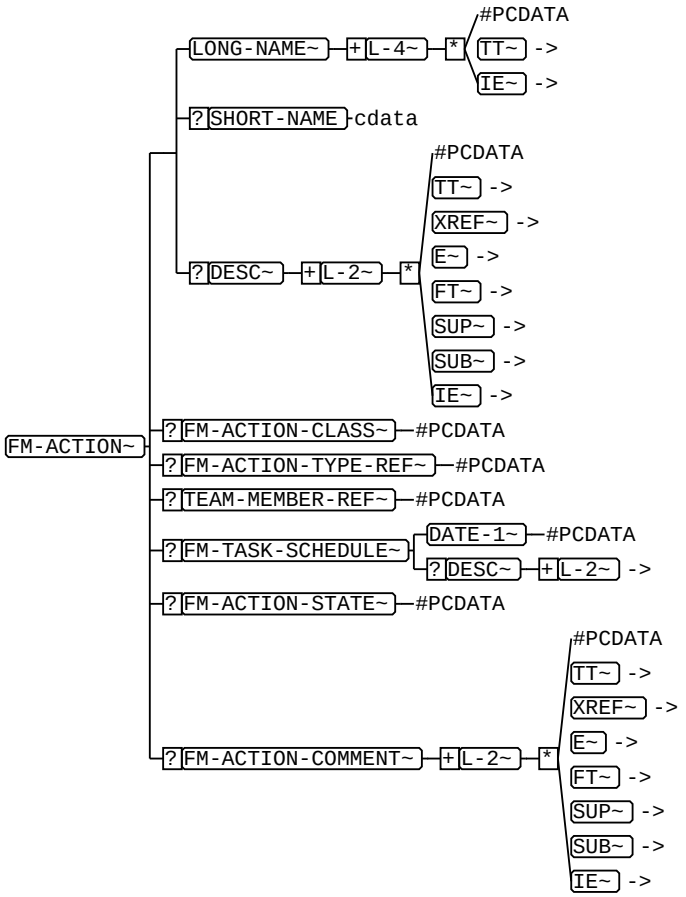


Figure 41: DTD-diagram for FM-ACTION

Child elements **<long-name> <short-name> <desc> <fm-action-class> <fm-action-type-ref> <team-member-ref> <fm-task-schedule> <fm-action-state> <fm-action-comment>**

parent elements **<fm-actions>**

Table 40: Attributes for FM-ACTION

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-ACTION	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

This element specifies actions (measures) in IQ-Fmea. Two existing kinds of actions must be specified: the counter-action (Preventive- oder Vermeidungsmaßnahmen) and the detection-action (Control- oder Entdeckungsmaßnahmen). This kind of action is written in the element FM-ACTION-PURPOSE

5.5 FM-ACTION-CLASS

images/FM-ACTION-CLASS.bmp

Figure 42: DTD-diagram for FM-ACTION-CLASS

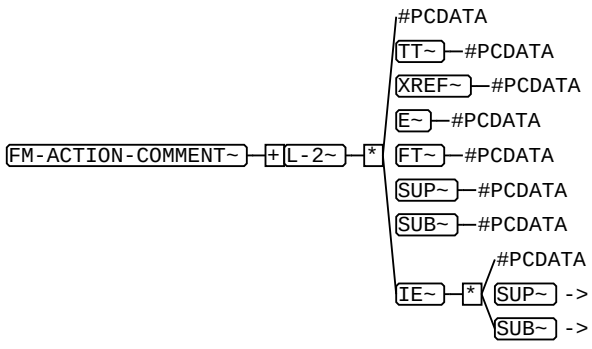
Child elements none

parent elements **<fm-action>**

Table 41: Attributes for FM-ACTION-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

5.6 FM-ACTION-COMMENT



images/FM-ACTION-COMMENT.bmp

Figure 43: DTD-diagram for FM-ACTION-COMMENT

Child elements **<l-2>**

parent elements **<fm-action>**

Table 42: Attributes for FM-ACTION-COMMENT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

5.7 FM-ACTION-REF

images/FM-ACTION-REF.bmp

Figure 44: DTD-diagram for FM-ACTION-REF

Child elements none

parent elements **<fm-counter-tasks> <fm-detection-tasks> <fm-external-action>**

Table 43: Attributes for FM-ACTION-REF

Name	Type	Class	Value	Remark
[FM-ACTION]	idref	required		
[HYNAMES]	names	fixed	LINKEND FM-ACTION	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

Description

FM-Action-Ref is a reference to an existing FM-Action. All references in IQ-Fmea are implemented by Uniq-Identifiers. These are Integers with the size 2^64. Each of this Integers identifies exactly one IQ-Object.

5.8 FM-ACTION-STATE

images/FM-ACTION-STATE.bmp

Figure 45: DTD-diagram for FM-ACTION-STATE

Child elements none

parent elements **<fm-action>**

Table 44: Attributes for FM-ACTION-STATE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

FM-Action-State qualifies the work-off of an action. Four states are defined: inProgress, untouched, finished, irrelevant.

5.9 FM-ACTION-TYPE

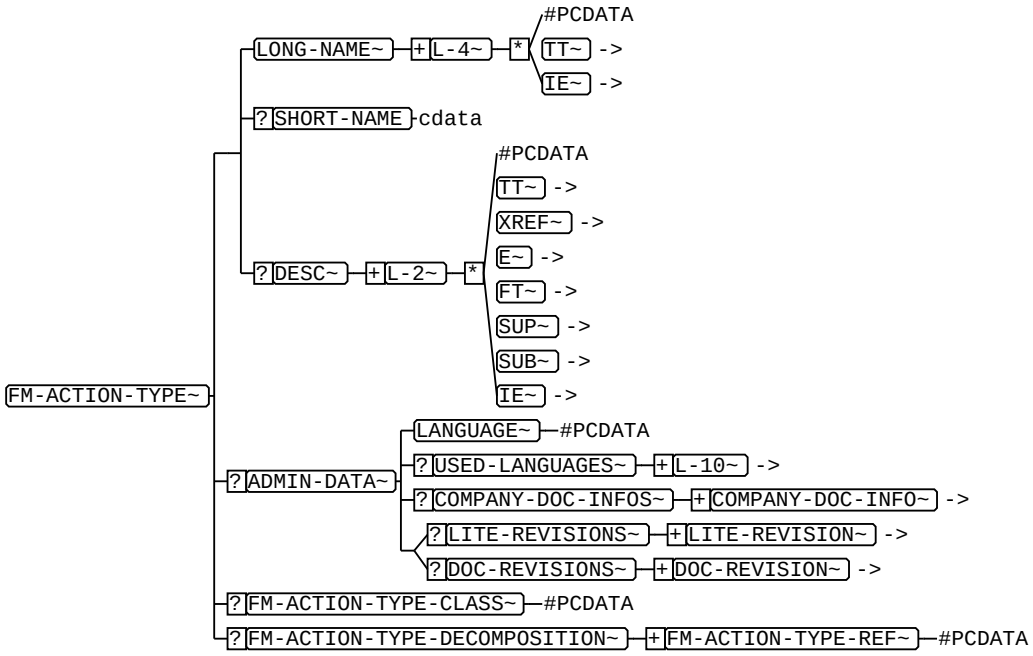


Figure 46: DTD-diagram for FM-ACTION-TYPE

Child elements **<long-name> <short-name> <desc> <admin-data> <fm-action-type-class> <fm-action-type-decomposition>**

parent elements **<fm-action-types>**

Table 45: Attributes for FM-ACTION-TYPE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-ACTION-TYPE	
[ID]	id	required		
[S]	cdata	implied		

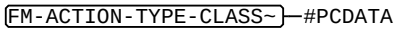
Table 45 (Cont.): Attributes for FM-ACTION-TYPE

Name	Type	Class	Value	Remark
[T]	cdata	implied		

Description

The FM-Action-Type element is equivalent to the FM-Function-Type element

5.10 FM-ACTION-TYPE-CLASS



images/FM-ACTION-TYPE-CLASS.bmp

Figure 47: DTD-diagram for FM-ACTION-TYPE-CLASS

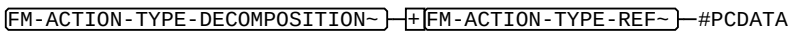
Child elements none

parent elements **<fm-action-type>**

Table 46: Attributes for FM-ACTION-TYPE-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

5.11 FM-ACTION-TYPE-DECOMPOSITION



images/FM-ACTION-TYPE-DECOMPOSITION.bmp

Figure 48: DTD-diagram for FM-ACTION-TYPE-DECOMPOSITION

Child elements **<fm-action-type-ref>**

parent elements **<fm-action-type>**

Table 47: Attributes for FM-ACTION-TYPE-DECOMPOSITION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Action-Type-Decomposition is equivalent to the FM-Function-Type-Decomposition

5.12 FM-ACTION-TYPE-REF

images/FM-ACTION-TYPE-REF.bmp

Figure 49: DTD-diagram for FM-ACTION-TYPE-REF

Child elements none

parent elements **<fm-action> <fm-action-type-decomposition>**

Table 48: Attributes for FM-ACTION-TYPE-REF

Name	Type	Class	Value	Remark
[FM-ACTION-TYPE]	idref	required		
[HYNAMES]	names	fixed	LINKEND FM-ACTION-TYPE	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

Description

FM-Action-Type-Ref is a reference to an element FM-Action-Type.

5.13 FM-ACTION-TYPES

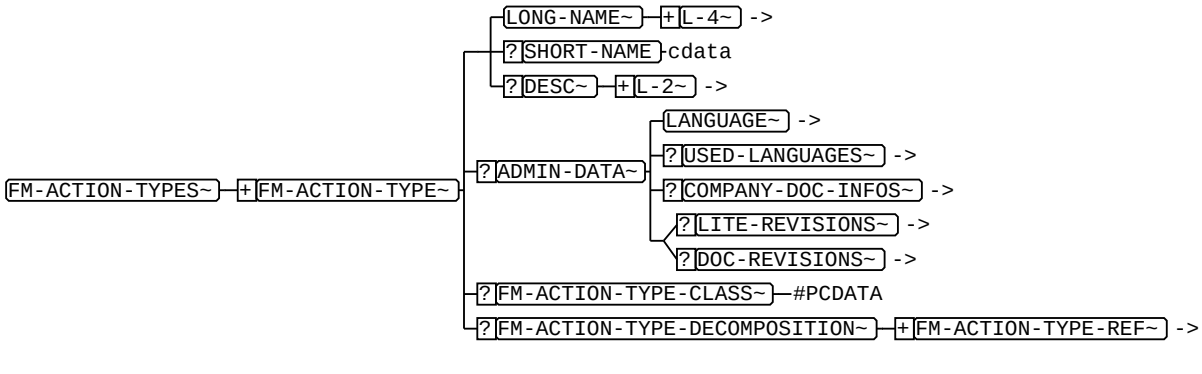


Figure 50: DTD-diagram for FM-ACTION-TYPES

Child elements **<fm-action-type>**

parent elements **<msrfmea>**

Table 49: Attributes for FM-ACTION-TYPES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

5.14 FM-ACTIONS

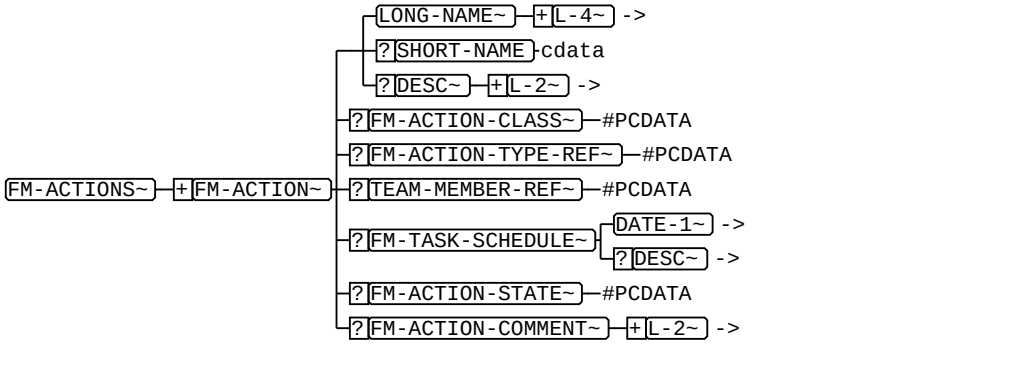


Figure 51: DTD-diagram for FM-ACTIONS

Child elements **<fm-action>**

parent elements **<msrfmea>**

Table 50: Attributes for FM-ACTIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Actions in the instance. Each FM-Action may be referenced with FM-Action-Ref.

5.15 FM-CAUSES

images/FM-CAUSES.bmp

Figure 52: DTD-diagram for FM-CAUSES

Child elements **<fm-fault-ref>**

parent elements **<fm-fault>**

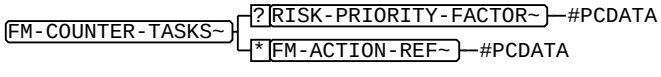
Table 51: Attributes for FM-CAUSES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This collection of Fm-fault-refs includes references to FM-Faults. Each reference is a Cause (Ursache) of the Fm-Fault.

5.16 FM-COUNTER-TASKS



images/FM-COUNTER-TASKS.bmp

Figure 53: DTD-diagram for FM-COUNTER-TASKS

Child elements **<risk-priority-factor> <fm-action-ref>**

parent elements **<fm-task-set>**

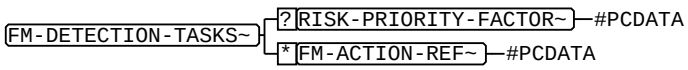
Table 52: Attributes for FM-COUNTER-TASKS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a set of references to FM-Actions, the so-called counter-actions (Vermeidungsmaßnahmen)

5.17 FM-DETECTION-TASKS



images/FM-DETECTION-TASKS.bmp

Figure 54: DTD-diagram for FM-DETECTION-TASKS

Child elements **<risk-priority-factor> <fm-action-ref>**

parent elements **<fm-task-set>**

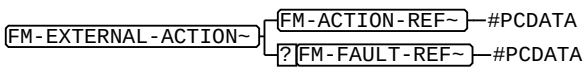
Table 53: Attributes for FM-DETECTION-TASKS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a set of references to FM-Actions, the so-called detection-actions (Entdeckungsmaßnahmen)

5.18 FM-EXTERNAL-ACTION



images/FM-EXTERNAL-ACTION.bmp

Figure 55: DTD-diagram for FM-EXTERNAL-ACTION

Child elements **<fm-action-ref> <fm-fault-ref>**

parent elements **<fm-external-actions-control> <fm-external-actions-detect>**

Table 54: Attributes for FM-EXTERNAL-ACTION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

5.19 FM-EXTERNAL-ACTIONS-CONTROL

images/FM-EXTERNAL-ACTIONS-CONTROL.bmp

Figure 56: DTD-diagram for FM-EXTERNAL-ACTIONS-CONTROL

Child elements **<fm-external-action>**

parent elements **<fm-task-set>**

Table 55: Attributes for FM-EXTERNAL-ACTIONS-CONTROL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

5.20 FM-EXTERNAL-ACTIONS-DETECT

images/FM-EXTERNAL-ACTIONS-DETECT.bmp

Figure 57: DTD-diagram for FM-EXTERNAL-ACTIONS-DETECT

Child elements **<fm-external-action>**

parent elements **<fm-task-set>**

Table 56: Attributes for FM-EXTERNAL-ACTIONS-DETECT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6 FM-FAULT ... FM-FUNCTION-TYPE-REF

6.1 FM-FAULT

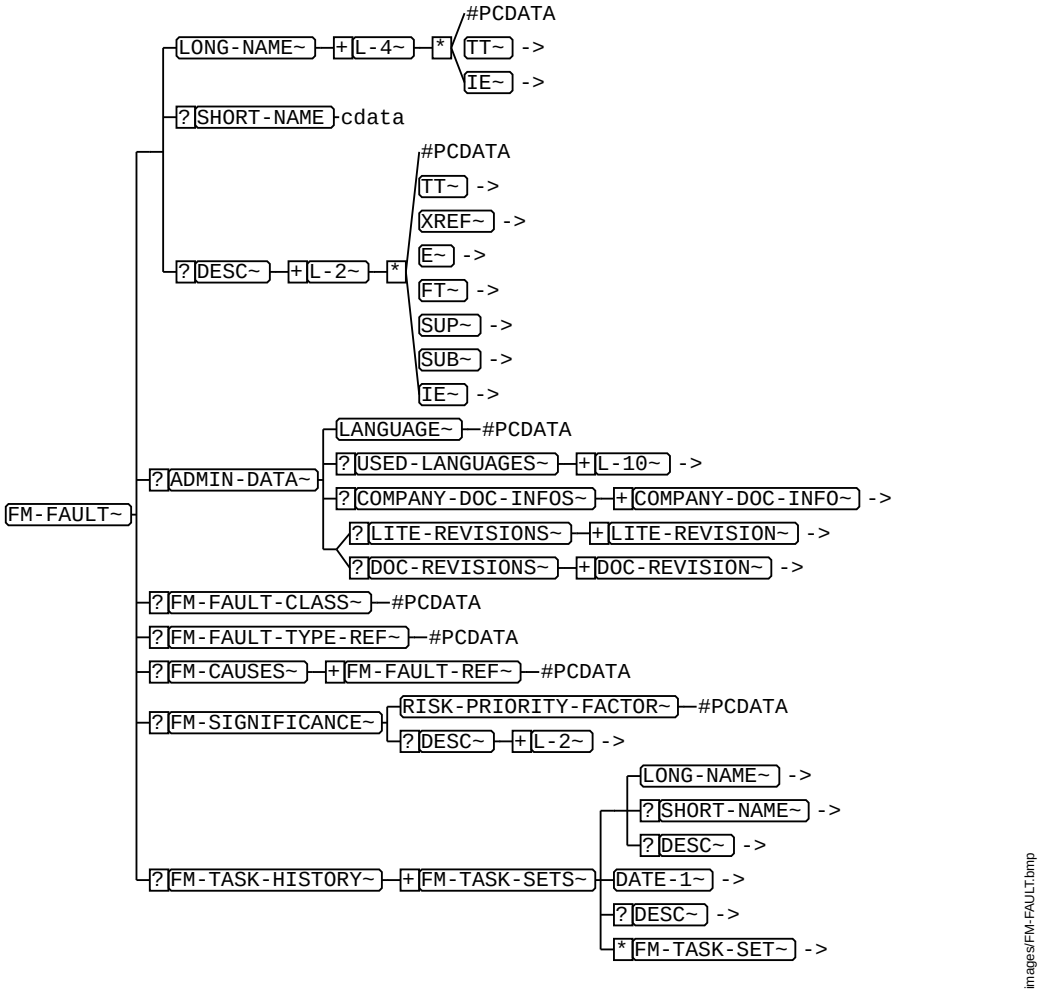


Figure 58: DTD-diagram for FM-FAULT

Child elements **<long-name> <short-name> <desc> <admin-data> <fm-fault-class> <fm-fault-type-ref> <fm-causes> <fm-significance> <fm-task-history>**

parent elements **<fm-faults>**

Table 57: Attributes for FM-FAULT

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-FAULT	
[F-NAMESPACE]	names	fixed	FM-TASK-SET FM-TASK-SETS	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

FM-Faults are the (possible) failures of Fm-Functions. Each Fm-Fault may have a significance, which is used to compute the risk-priority-factor. The Fm-Fault holds the Fm-Chg element, which is the root to the Fm-Tasks and further to the Fm-Actions.

6.2 FM-FAULT-CLASS

images/FM-FAULT-CLASS.bmp

Figure 59: DTD-diagram for FM-FAULT-CLASS

Child elements none

parent elements **<fm-fault>**

Table 58: Attributes for FM-FAULT-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6.3 FM-FAULT-REF

images/FM-FAULT-REF.bmp

Figure 60: DTD-diagram for FM-FAULT-REF

Child elements none

parent elements **<fm-causes> <fm-external-action> <fm-fault-refs> <input> <output> <visible>**

Table 59: Attributes for FM-FAULT-REF

Name	Type	Class	Value	Remark
[FM-FAULT]	idref	required		
[HYNAMES]	names	fixed	LINKEND FM-FAULT	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

6.4 FM-FAULT-REFS

images/FM-FAULT-REFS.bmp

Figure 61: DTD-diagram for FM-FAULT-REFS

Child elements **<fm-fault-ref>**

parent elements **<fm-function>**

Table 60: Attributes for FM-FAULT-REFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with references to FM-Faults in the instance.

6.5 FM-FAULT-TYPE

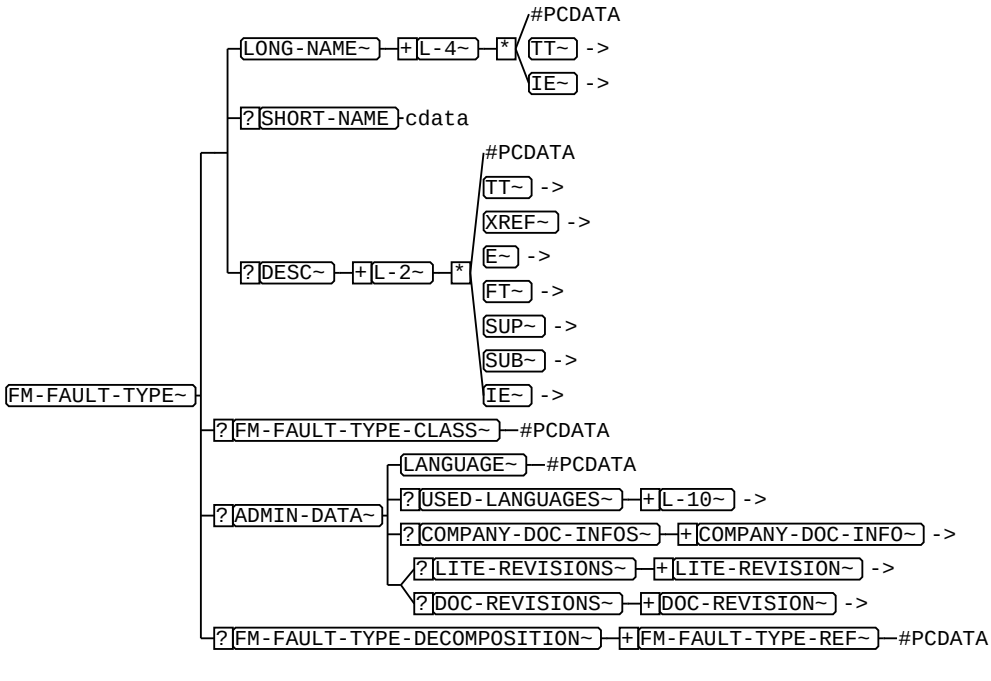


Figure 62: DTD-diagram for FM-FAULT-TYPE

Child elements **<long-name> <short-name> <desc> <fm-fault-type-class> <admin-data> <fm-fault-type-decomposition>**

parent elements **<fm-fault-types>**

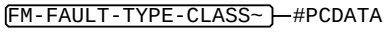
Table 61: Attributes for FM-FAULT-TYPE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-FAULT-TYPE	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Fault-Type element is equivalent to the FM-Function-Type element

6.6 FM-FAULT-TYPE-CLASS



images/FM-FAULT-TYPE-CLASS.bmp

Figure 63: DTD-diagram for FM-FAULT-TYPE-CLASS

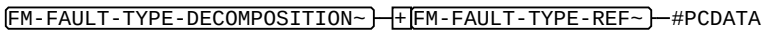
Child elements none

parent elements **<fm-fault-type>**

Table 62: Attributes for FM-FAULT-TYPE-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6.7 FM-FAULT-TYPE-DECOMPOSITION



images/FM-FAULT-TYPE-DECOMPOSITION.bmp

Figure 64: DTD-diagram for FM-FAULT-TYPE-DECOMPOSITION

Child elements **<fm-fault-type-ref>**

parent elements **<fm-fault-type>**

Table 63: Attributes for FM-FAULT-TYPE-DECOMPOSITION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6.8 FM-FAULT-TYPE-REF

images/FM-FAULT-TYPE-REF.bmp

Figure 65: DTD-diagram for FM-FAULT-TYPE-REF

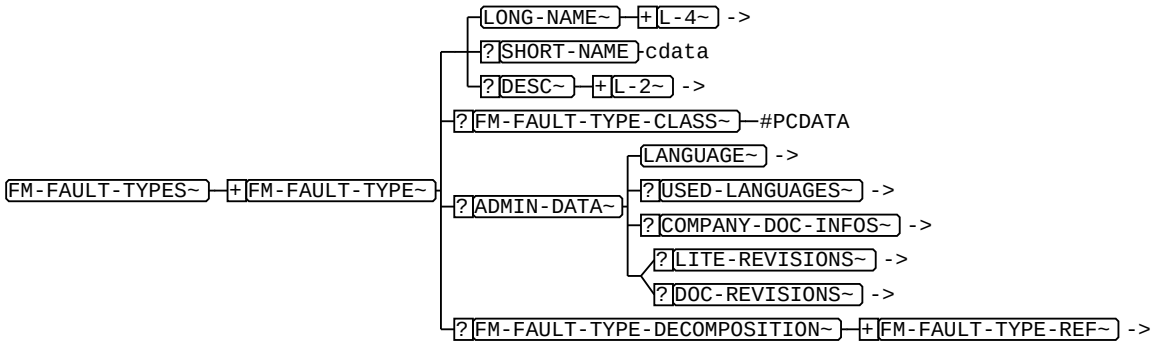
Child elements none

parent elements **<fm-fault> <fm-fault-type-decomposition>**

Table 64: Attributes for FM-FAULT-TYPE-REF

Name	Type	Class	Value	Remark
[FM-FAULT-TYPE]	idref	required		
[HYNAMES]	names	fixed	LINKEND FM-FAULT-TYPE	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

6.9 FM-FAULT-TYPES



images/FM-FAULT-TYPES.bmp

Figure 66: DTD-diagram for FM-FAULT-TYPES

Child elements **<fm-fault-type>**

parent elements **<msrfmea>**

Table 65: Attributes for FM-FAULT-TYPES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Fault-Types in the instance. Each FM-Fault-Type may be referenced by a FM-Fault-Type-Ref element.

6.10 FM-FAULTS

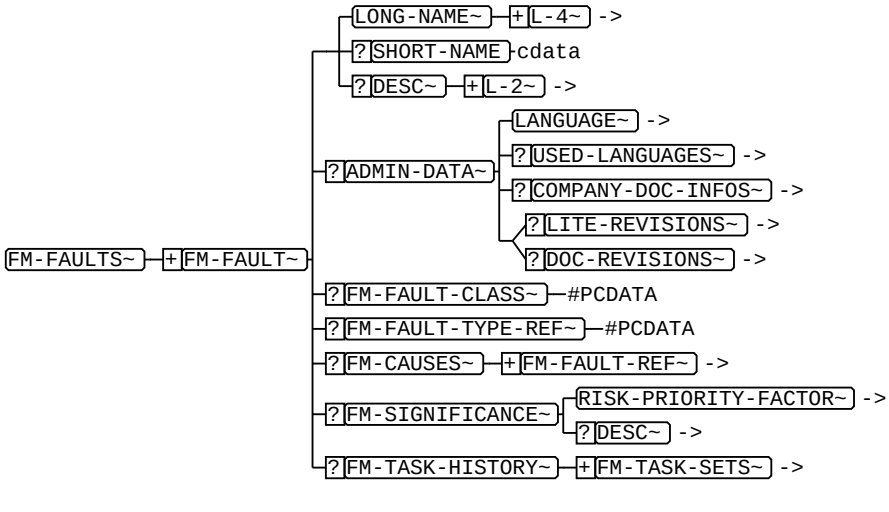


Figure 67: DTD-diagram for FM-FAULTS

Child elements **<fm-fault>**

parent elements **<msrfmea>**

Table 66: Attributes for FM-FAULTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Faults in the instance. Each FM-Fault may be referenced by a FM-Fault-Ref element.

6.11 FM-FORM-SHEET

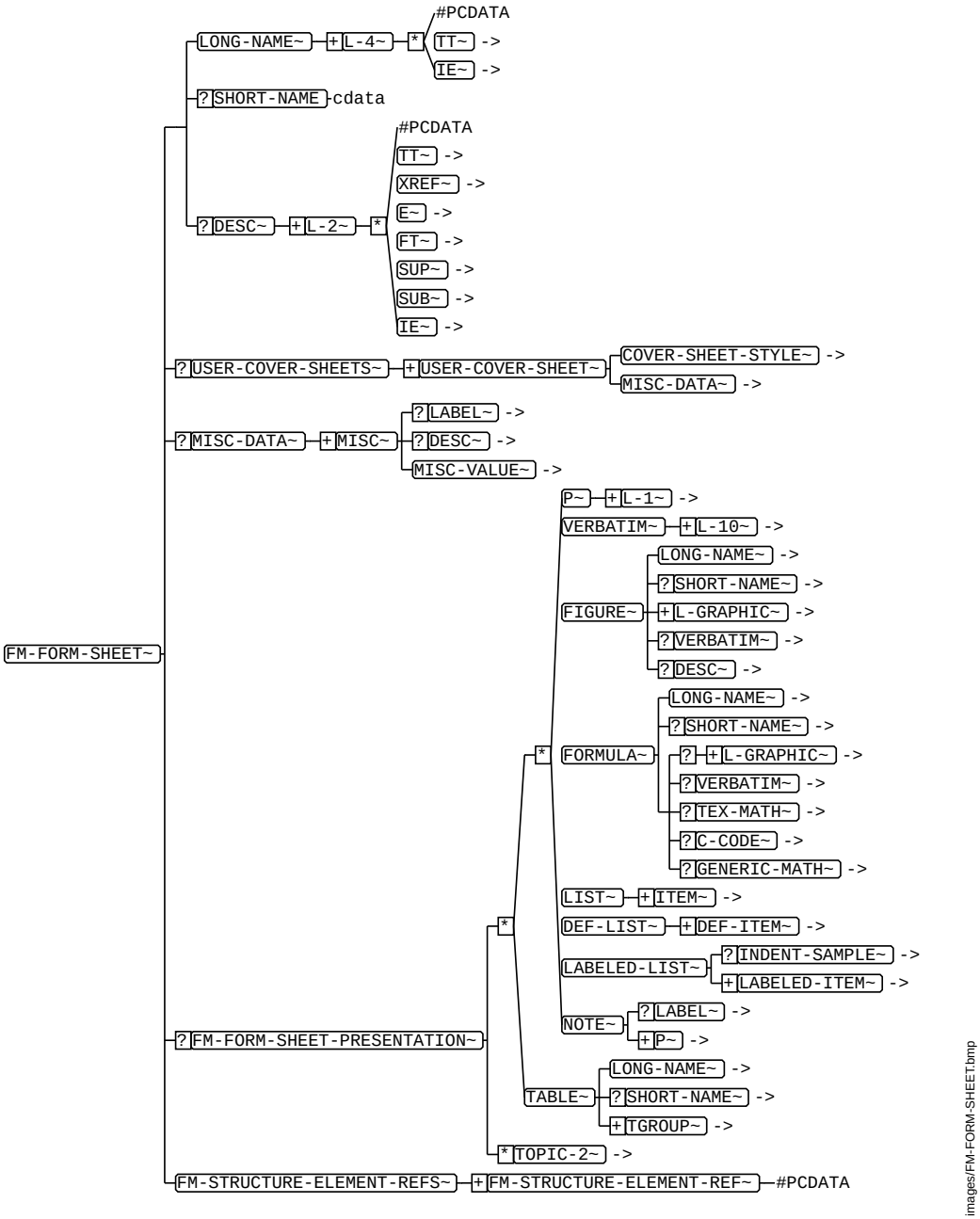


Figure 68: DTD-diagram for FM-FORM-SHEET

Child elements **<long-name> <short-name> <desc> <user-cover-sheets> <misc-data> <fm-form-sheet-presentation> <fm-structure-element-refs>**

parent elements **<fm-form-sheets>**

Table 67: Attributes for FM-FORM-SHEET

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-FORM-SHEET	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

6.12 FM-FORM-SHEET-PRESENTATION

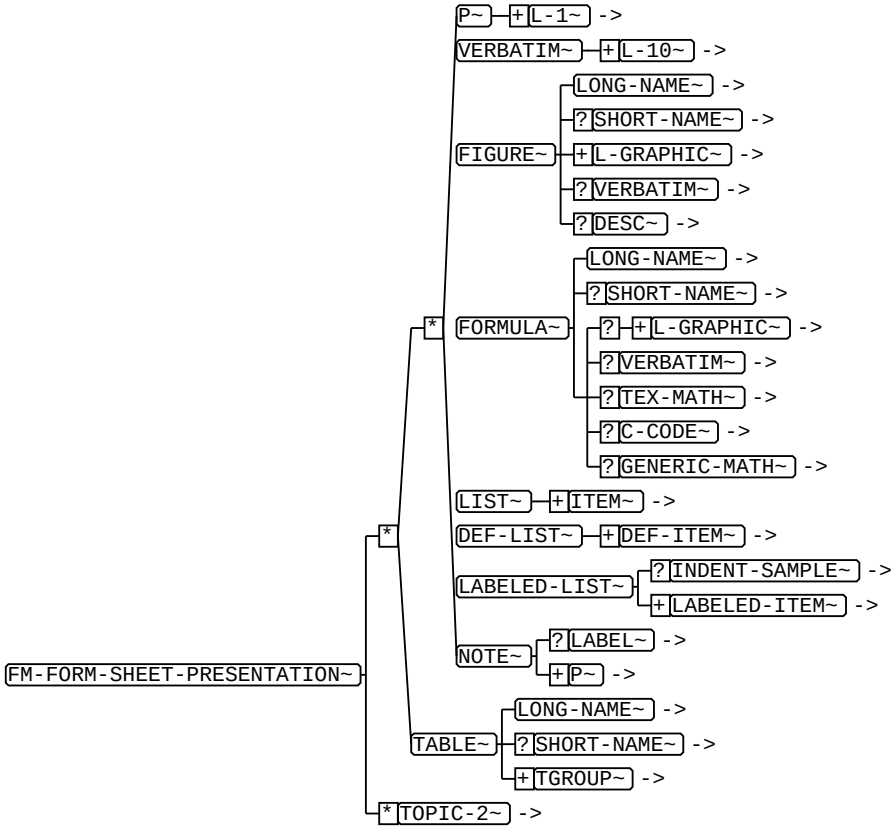


Figure 69: DTD-diagram for FM-FORM-SHEET-PRESENTATION

Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table> <topic-2>**

parent elements **<fm-form-sheet>**

Table 68: Attributes for FM-FORM-SHEET-PRESENTATION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a cals-tab-description of the visual representation of a fmea-form. Some different layouts are available but just the last active layout is exported. This presentation-layer has no semantic information because all the semantic information of a fmea-form can be restored from the ”real” fmea-elements, f. e. Fm-Structure-Element, Fm-Fault, Fm-Function,Fm-Causes etc.

6.13 FM-FORM-SHEETS

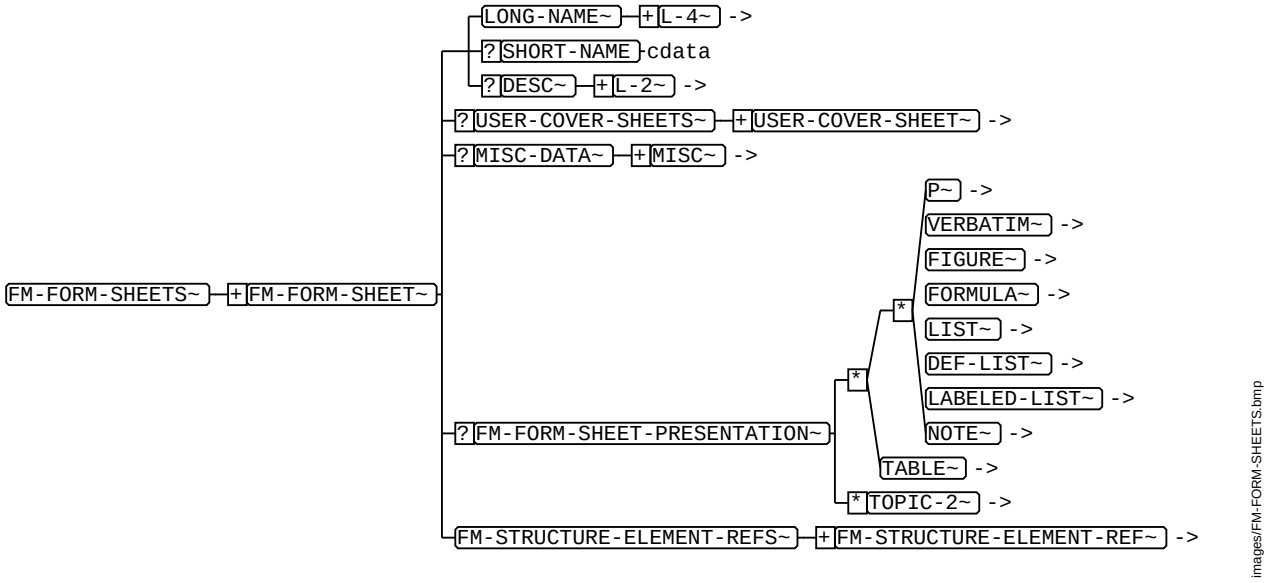


Figure 70: DTD-diagram for FM-FORM-SHEETS

Child elements **<fm-form-sheet>**

parent elements **<fm-structure>**

Table 69: Attributes for FM-FORM-SHEETS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6.14 FM-FUNCTION

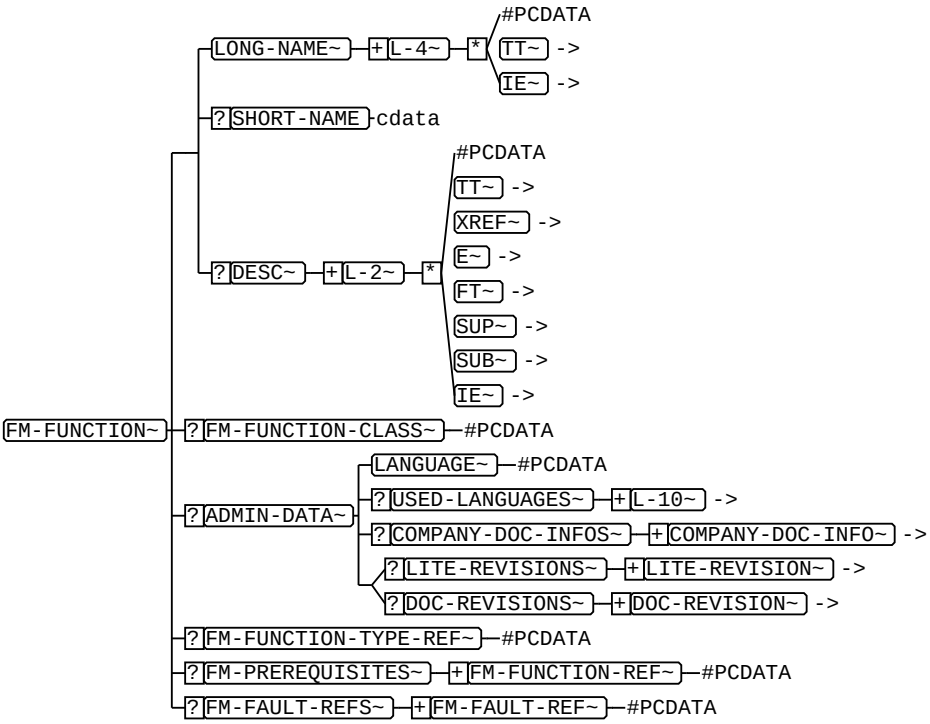


Figure 71: DTD-diagram for FM-FUNCTION

Child elements **<long-name> <short-name> <desc> <fm-function-class> <admin-data> <fm-function-type-ref> <fm-prerequisites> <fm-fault-refs>**

parent elements **<fm-functions>**

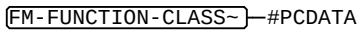
Table 70: Attributes for FM-FUNCTION

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-FUNCTION	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

Each FM-Function is anchored at one systemelement (FM-Structure-Element). All the functions should describe the aim of their systemelement. Each function is an instance of its type (FM-Function-Type) and may be referenced by FM-Function-Ref.

6.15 FM-FUNCTION-CLASS



images/FM-FUNCTION-CLASS.bmp

Figure 72: DTD-diagram for FM-FUNCTION-CLASS

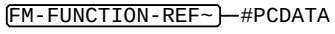
Child elements none

parent elements **<fm-function>**

Table 71: Attributes for FM-FUNCTION-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6.16 FM-FUNCTION-REF



images/FM-FUNCTION-REF.bmp

Figure 73: DTD-diagram for FM-FUNCTION-REF

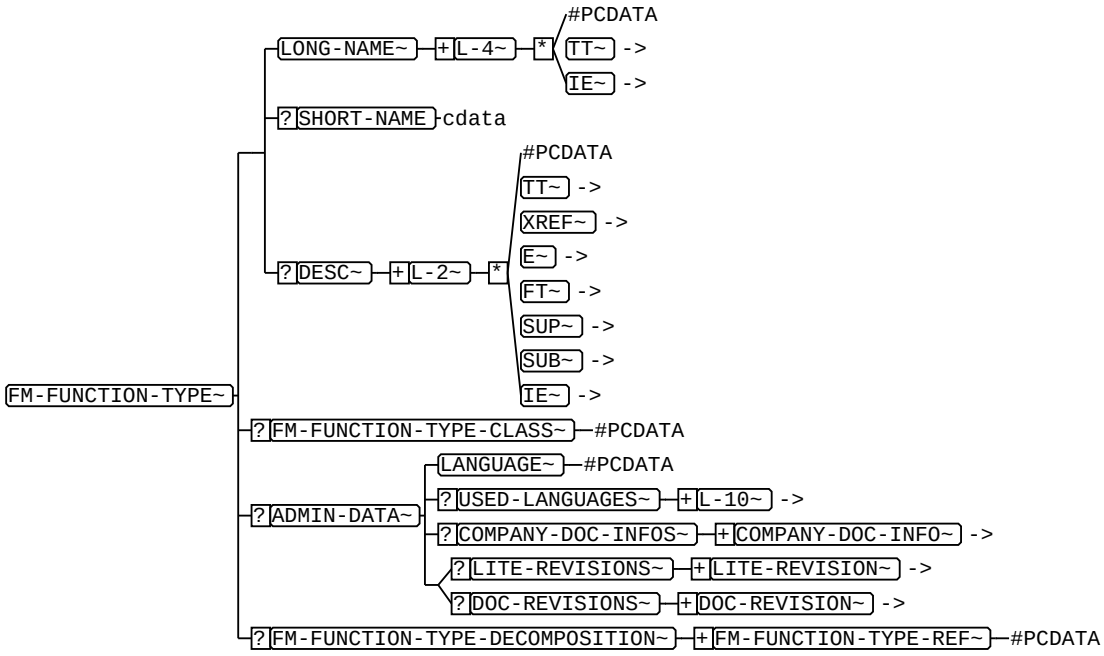
Child elements none

parent elements **<fm-prerequisites> <fm-se-functions> <input> <output> <visible>**

Table 72: Attributes for FM-FUNCTION-REF

Name	Type	Class	Value	Remark
[FM-FUNCTION]	idref	required		
[HYNAMES]	names	fixed	LINKEND FM-FUNCTION	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

6.17 FM-FUNCTION-TYPE



images/FM-FUNCTION-TYPE.bmp

Figure 74: DTD-diagram for FM-FUNCTION-TYPE

Child elements **<long-name> <short-name> <desc> <fm-function-type-class> <admin-data> <fm-function-type-decomposition>**

parent elements **<fm-function-types>**

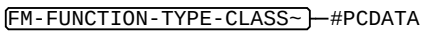
Table 73: Attributes for FM-FUNCTION-TYPE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-FUNCTION-TYPE	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Function-Type is the name-provider for each fm-function. This technique is used for fm-functions, fm-faults and fm-actions. Each of this instances has a reference to its type, f. e. fm-function has a reference to its type within FM-Function-Type-Ref.

6.18 FM-FUNCTION-TYPE-CLASS



images/FM-FUNCTION-TYPE-CLASS.bmp

Figure 75: DTD-diagram for FM-FUNCTION-TYPE-CLASS

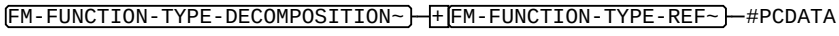
Child elements none

parent elements **<fm-function-type>**

Table 74: Attributes for FM-FUNCTION-TYPE-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

6.19 FM-FUNCTION-TYPE-DECOMPOSITION



images/FM-FUNCTION-TYPE-DECOMPOSITION.bmp

Figure 76: DTD-diagram for FM-FUNCTION-TYPE-DECOMPOSITION

Child elements **<fm-function-type-ref>**

parent elements **<fm-function-type>**

Table 75: Attributes for FM-FUNCTION-TYPE-DECOMPOSITION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Function-Type-Decomposition has the structure of a tree. Each FM-Function-Type has children with other FM-Function-Types. Each FM-Function-Type inherits the name of his parent - the so-called classification-name.

6.20 FM-FUNCTION-TYPE-REF

images/FM-FUNCTION-TYPE-REF.bmp

Figure 77: DTD-diagram for FM-FUNCTION-TYPE-REF

Child elements none

parent elements **<fm-function> <fm-function-type-decomposition>**

Table 76: Attributes for FM-FUNCTION-TYPE-REF

Name	Type	Class	Value	Remark
[FM-FUNCTION-TYPE]	idref	required		
[HYNAMES]	names	fixed	LINKEND FM-FUNCTION-TYPE	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Function-Type-Ref is a reference to a FM-Function-Type within the sgml-instance.

7 FM-FUNCTION-TYPES ... FM-STRUCTURE-ROOT

7.1 FM-FUNCTION-TYPES

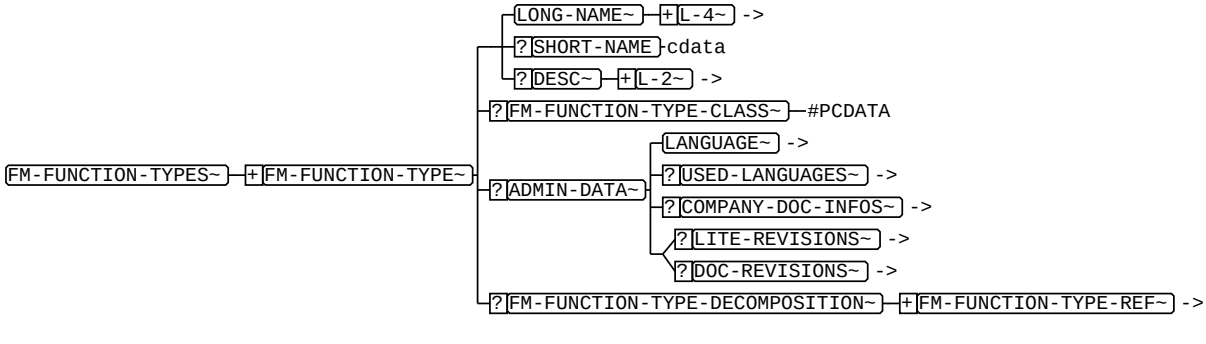


Figure 78: DTD-diagram for FM-FUNCTION-TYPES

Child elements **<fm-function-type>**

parent elements **<msrfmea>**

Table 77: Attributes for FM-FUNCTION-TYPES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.2 FM-FUNCTIONS

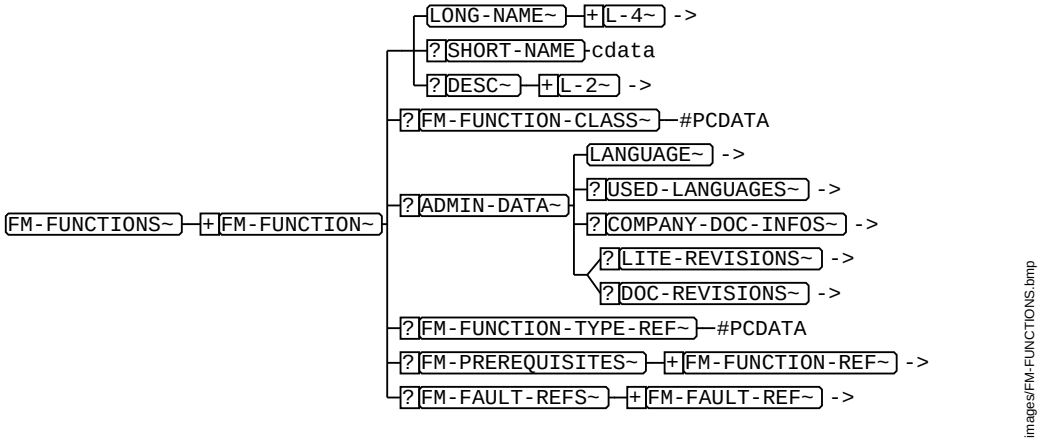


Figure 79: DTD-diagram for FM-FUNCTIONS

Child elements **<fm-function>**

parent elements **<msrfmea>**

Table 78: Attributes for FM-FUNCTIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Functions in the instance. Each FM-Function may be referenced by a FM-Function-Ref element.

7.3 FM-HEAD

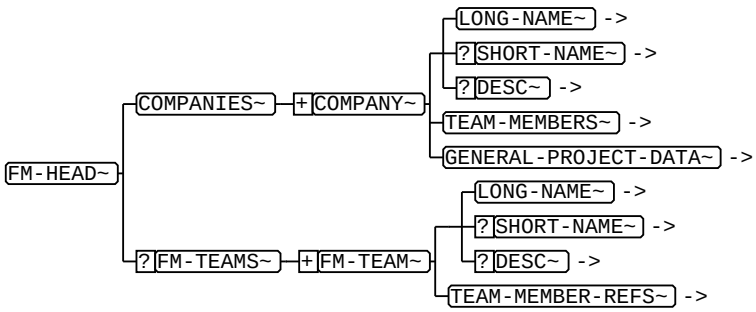


Figure 80: DTD-diagram for FM-HEAD

Child elements **<companies> <fm-teams>**

parent elements **<msrfmea>**

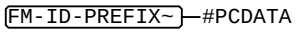
Table 79: Attributes for FM-HEAD

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is used to hold information about the shared companies within the sgml-instance, the user-profile, employed persons (team-members) and their teams.

7.4 FM-ID-PREFIX



images/FM-ID-PREFIX.bmp

Figure 81: DTD-diagram for FM-ID-PREFIX

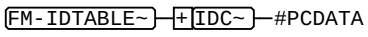
Child elements none

parent elements **<fm-tool>**

Table 80: Attributes for FM-ID-PREFIX

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.5 FM-IDTABLE



images/FM-IDTABLE.bmp

Figure 82: DTD-diagram for FM-IDTABLE

Child elements **<idc>**

parent elements **<fm-tool>**

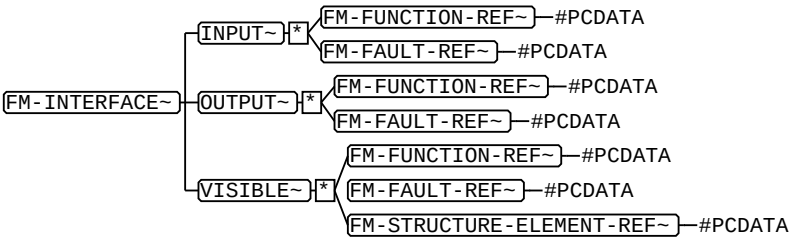
Table 81: Attributes for FM-IDTABLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TOOL]	name	implied		

Description

The Fm-Idtable identifies identities, that are generated by other applications than the Id-Owner. This ”mapping” enables the parser, to recognize strange elements, that were formerly changed by himself. Each application uses its own Fm-Idtable, found in Fm-Idtables.

7.6 FM-INTERFACE



images/FM-INTERFACE.bmp

Figure 83: DTD-diagram for FM-INTERFACE

Child elements **<input> <output> <visible>**

parent elements **<fm-structure>**

Table 82: Attributes for FM-INTERFACE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This element is not used yet. In the future the modules will be implemented. The interface is used to describe incoming,outgoing and visible references to/from a module.

7.7 FM-ORPHAN-HOME

images/FM-ORPHAN-HOME.bmp

Figure 84: DTD-diagram for FM-ORPHAN-HOME

Child elements **<fm-structure-element-ref>**

parent elements **<fm-structure>**

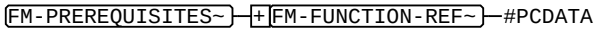
Table 83: Attributes for FM-ORPHAN-HOME

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

The orphan home is a FM-Structure-Element which holds an orphan FM-Function. All ”unanchored” Objects are anchored at the orphans.

7.8 FM-PREREQUISITES



images/FM-PREREQUISITES.bmp

Figure 85: DTD-diagram for FM-PREREQUISITES

Child elements **<fm-function-ref>**

parent elements **<fm-function>**

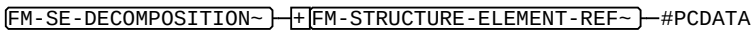
Table 84: Attributes for FM-PREREQUISITES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This collection includes references to FM-Functions. Each reference is a prerequisite (Ursache) of the Fm-Function. This is similar to the causes of Fm-Faults.

7.9 FM-SE-DECOMPOSITION



images/FM-SE-DECOMPOSITION.bmp

Figure 86: DTD-diagram for FM-SE-DECOMPOSITION

Child elements **<fm-structure-element-ref>**

parent elements **<fm-structure-element>**

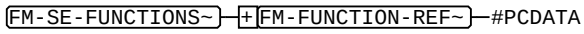
Table 85: Attributes for FM-SE-DECOMPOSITION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

The Fm-Se-Decomposition describes the tree-structure of the Systemelements within a structure. The root-element is referenced in Fm-Structure. The Fm-Se-Decomposition is the children-collection of each Systemelement.

7.10 FM-SE-FUNCTIONS



images/FM-SE-FUNCTIONS.bmp

Figure 87: DTD-diagram for FM-SE-FUNCTIONS

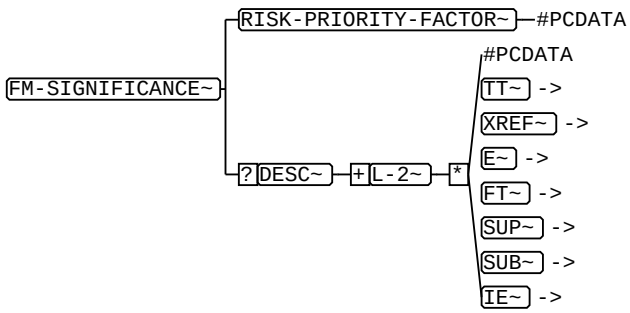
Child elements **<fm-function-ref>**

parent elements **<fm-structure-element>**

Table 86: Attributes for FM-SE-FUNCTIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.11 FM-SIGNIFICANCE



images/FM-SIGNIFICANCE.bmp

Figure 88: DTD-diagram for FM-SIGNIFICANCE

Child elements **<risk-priority-factor> <desc>**

parent elements **<fm-fault>**

Table 87: Attributes for FM-SIGNIFICANCE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.12 FM-STRUCTURE

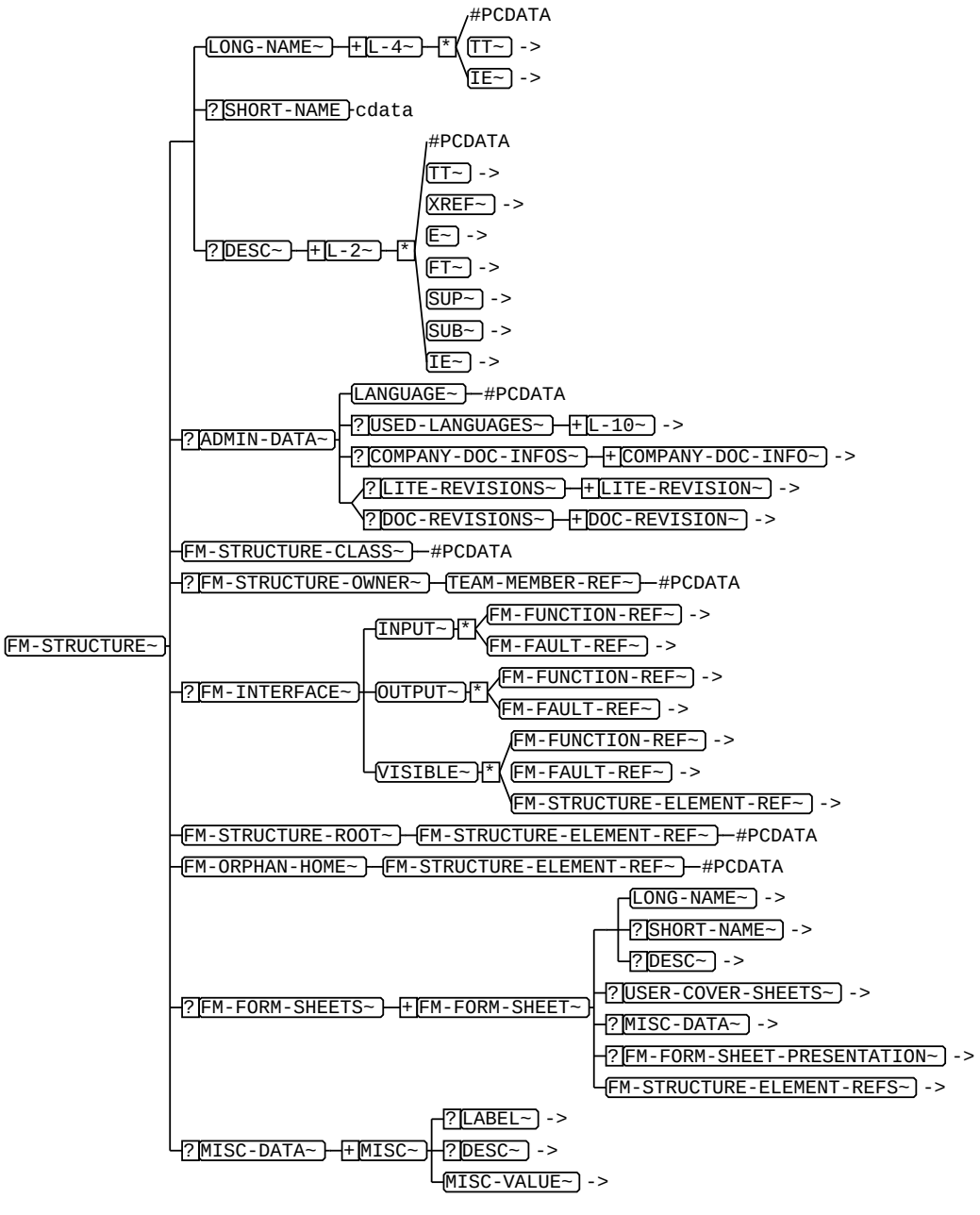


Figure 89: DTD-diagram for FM-STRUCTURE

Child elements **<long-name> <short-name> <desc> <admin-data> <fm-structure-class> <fm-structure-owner> <fm-interface> <fm-structure-root> <fm-orphan-home> <fm-form-sheets> <misc-data>**

parent elements **<fm-structures>**

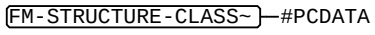
Table 88: Attributes for FM-STRUCTURE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-STRUCTURE	
[F-NAMESPACE]	names	fixed	FM-FORM-SHEET	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Structure is visualized by a tree. The root is one Fm-Structure-element. Each FM-Structure is owned by a team-member and must be classified as system or process (FM-Structure-Class).

7.13 FM-STRUCTURE-CLASS



images/FM-STRUCTURE-CLASS.bmp

Figure 90: DTD-diagram for FM-STRUCTURE-CLASS

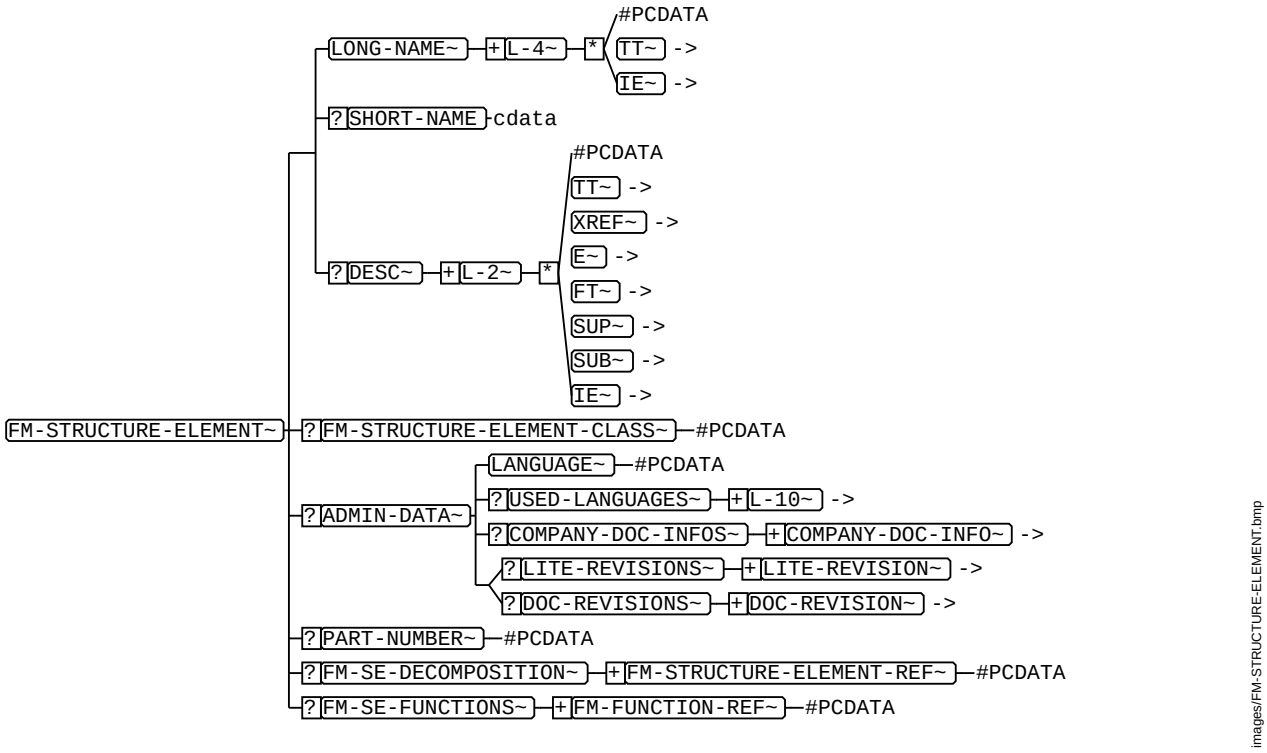
Child elements none

parent elements **<fm-structure>**

Table 89: Attributes for FM-STRUCTURE-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.14 FM-STRUCTURE-ELEMENT



images/FM-STRUCTURE-ELEMENT.bmp

Figure 91: DTD-diagram for FM-STRUCTURE-ELEMENT

Child elements **<long-name> <short-name> <desc> <fm-structure-element-class> <admin-data> <part-number> <fm-se-decomposition> <fm-se-functions>**

parent elements **<fm-structure-elements>**

Table 90: Attributes for FM-STRUCTURE-ELEMENT

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-STRUCTURE-ELEMENT	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

The FM-Structure-Elements (systemelements) are the parts, of which a Structure (physically) exists. Fm-Structure-Elements are organized hierachically as a tree (see Fm-Se-Decomposition). Each systemelement has a name and is described by Fm-Functions.

7.15 FM-STRUCTURE-ELEMENT-CLASS

images/FM-STRUCTURE-ELEMENT-CLASS.bmp

Figure 92: DTD-diagram for FM-STRUCTURE-ELEMENT-CLASS

Child elements none

parent elements **<fm-structure-element>**

Table 91: Attributes for FM-STRUCTURE-ELEMENT-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.16 FM-STRUCTURE-ELEMENT-REF

images/FM-STRUCTURE-ELEMENT-REF.bmp

Figure 93: DTD-diagram for FM-STRUCTURE-ELEMENT-REF

Child elements none

parent elements **<fm-orphan-home> <fm-se-decomposition> <fm-structure-element-refs> <fm-structure-root> <visible>**

Table 92: Attributes for FM-STRUCTURE-ELEMENT-REF

Name	Type	Class	Value	Remark
[FM-STRUCTURE-ELEMENT]	idref	required		

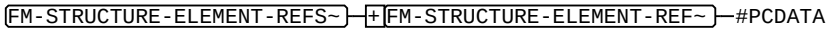
Table 92 (Cont.): Attributes for FM-STRUCTURE-ELEMENT-REF

Name	Type	Class	Value	Remark
[HYNAMES]	names	fixed	LINKEND FM-STRUCTURE-ELEMENT	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		

Description

A reference to a FM-Structure-Element, f.e. in Fm-Se-Decomposition.

7.17 FM-STRUCTURE-ELEMENT-REFS



images/FM-STRUCTURE-ELEMENT-REFS.bmp

Figure 94: DTD-diagram for FM-STRUCTURE-ELEMENT-REFS

Child elements **<fm-structure-element-ref>**

parent elements **<fm-form-sheet>**

Table 93: Attributes for FM-STRUCTURE-ELEMENT-REFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

7.18 FM-STRUCTURE-ELEMENTS

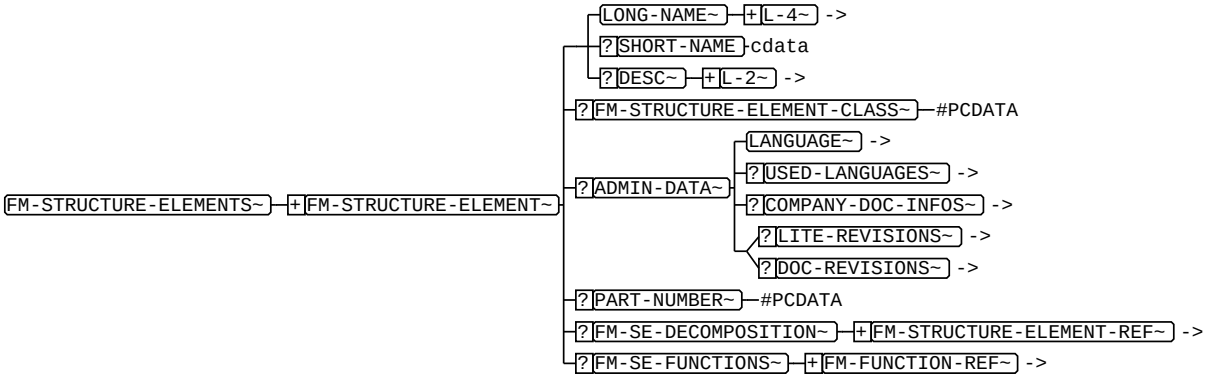


Figure 95: DTD-diagram for FM-STRUCTURE-ELEMENTS

Child elements **<fm-structure-element>**

parent elements **<msrfmea>**

Table 94: Attributes for FM-STRUCTURE-ELEMENTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Structure-Elements in the instance. Each FM-Structure-Element may be referenced by a FM-Structure-Element-Ref element.

7.19 FM-STRUCTURE-OWNER

Figure 96: DTD-diagram for FM-STRUCTURE-OWNER

Child elements **<team-member-ref>**

parent elements **<fm-structure>**

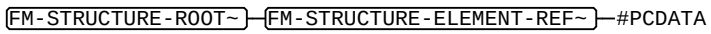
Table 95: Attributes for FM-STRUCTURE-OWNER

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

The Structure-Owner is ”responsible” for the Fm-Structure. He determines the User-Access and the visibility of ”his” structures.

7.20 FM-STRUCTURE-ROOT



images/FM-STRUCTURE-ROOT.bmp

Figure 97: DTD-diagram for FM-STRUCTURE-ROOT

Child elements **<fm-structure-element-ref>**

parent elements **<fm-structure>**

Table 96: Attributes for FM-STRUCTURE-ROOT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a reference to a FM-Structure-Element and describes the root of the structure-tree.

8 FM-STRUCTURES ... FT

8.1 FM-STRUCTURES

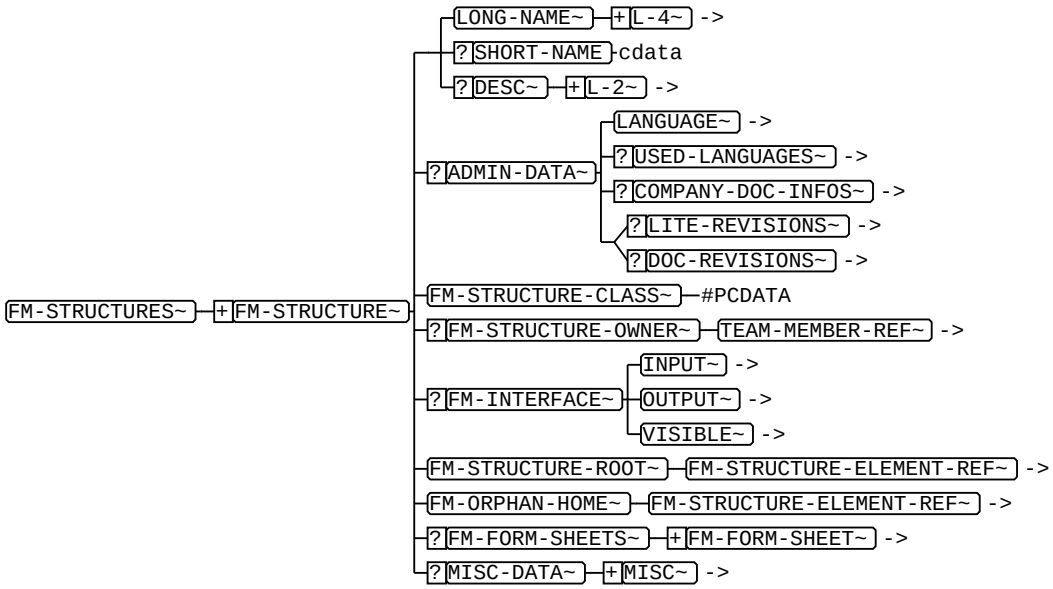


Figure 98: DTD-diagram for FM-STRUCTURES

Child elements **<fm-structure>**

parent elements **<msrfmea>**

Table 97: Attributes for FM-STRUCTURES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Structures in the instance.

8.2 FM-TASK-HISTORY

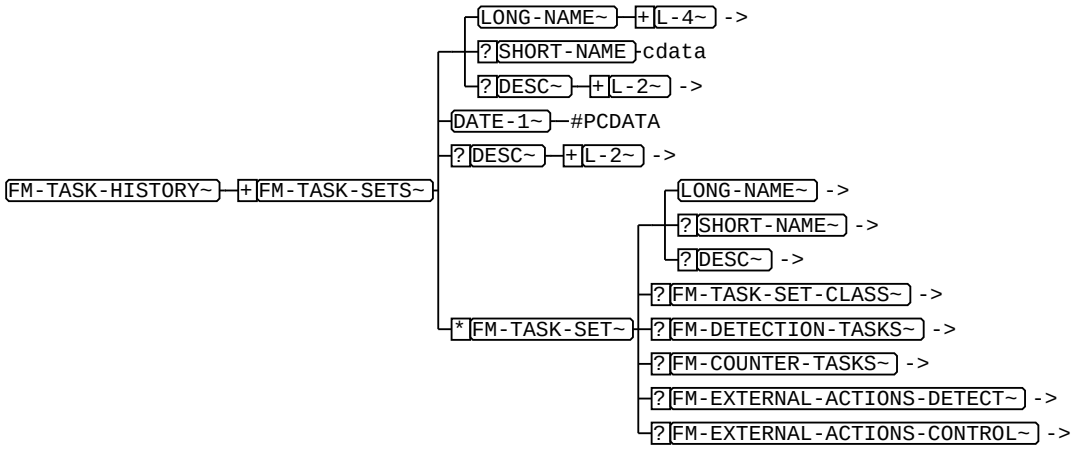


Figure 99: DTD-diagram for FM-TASK-HISTORY

Child elements **<fm-task-sets>**

parent elements **<fm-fault>**

Table 98: Attributes for FM-TASK-HISTORY

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

8.3 FM-TASK-SCHEDULE

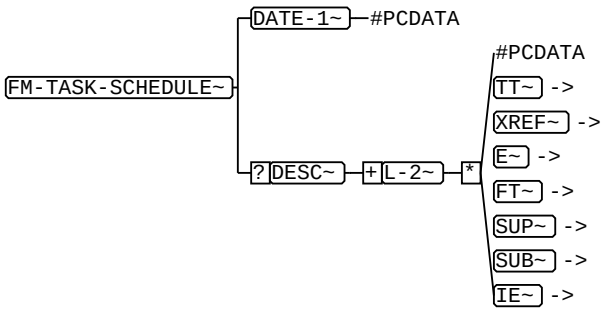


Figure 100: DTD-diagram for FM-TASK-SCHEDULE

Child elements **<date-1> <desc>**

parent elements **<fm-action>**

Table 99: Attributes for FM-TASK-SCHEDULE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

Fm-Actions may have deadlines.

8.4 FM-TASK-SET

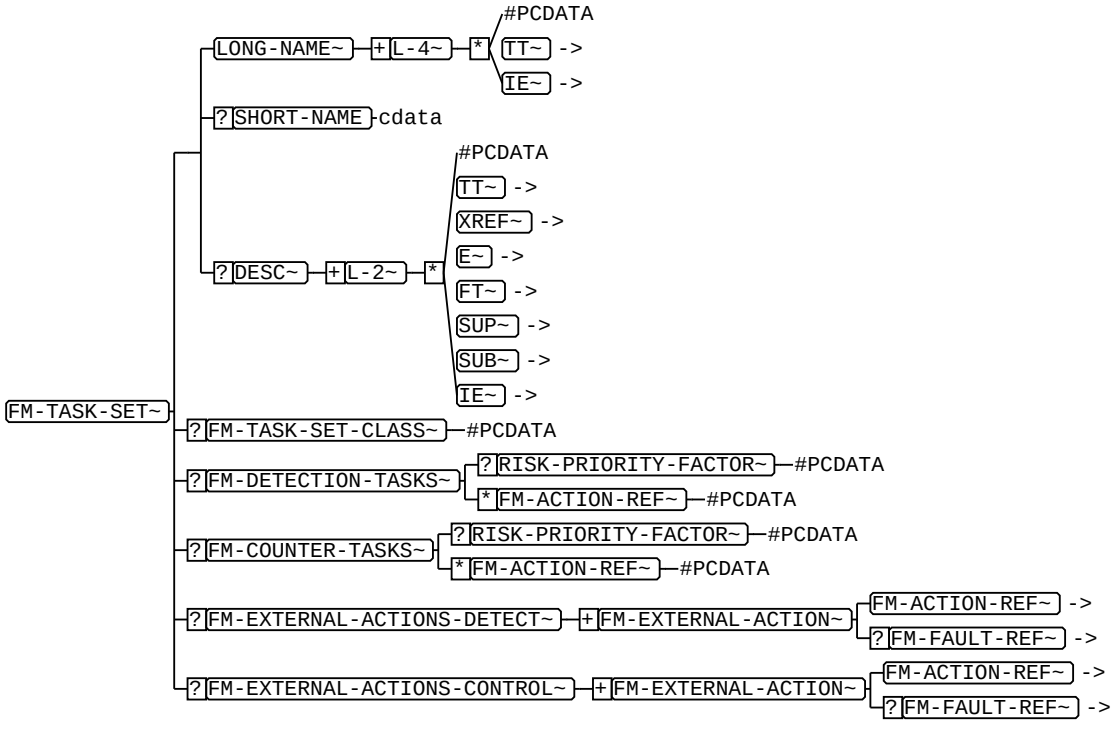


Figure 101: DTD-diagram for FM-TASK-SET

Child elements **<long-name> <short-name> <desc> <fm-task-set-class> <fm-detection-tasks> <fm-counter-tasks> <fm-external-actions-detect> <fm-external-actions-control>**

parent elements **<fm-task-sets>**

Table 100: Attributes for FM-TASK-SET

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-TASK-SET	
[ID]	id	required		

Table 100 (Cont.): Attributes for FM-TASK-SET

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

Fm-Task-Sets are used to group the Fm-Actions by incidence and discovery.

8.5 FM-TASK-SET-CLASS

images/FM-TASK-SET-CLASS.bmp

Figure 102: DTD-diagram for FM-TASK-SET-CLASS

Child elements none

parent elements **<fm-task-set>**

Table 101: Attributes for FM-TASK-SET-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

8.6 FM-TASK-SETS

Figure 103: DTD-diagram for FM-TASK-SETS

Child elements **<long-name> <short-name> <desc> <date-1> <desc> <fm-task-set>**

parent elements **<fm-task-history>**

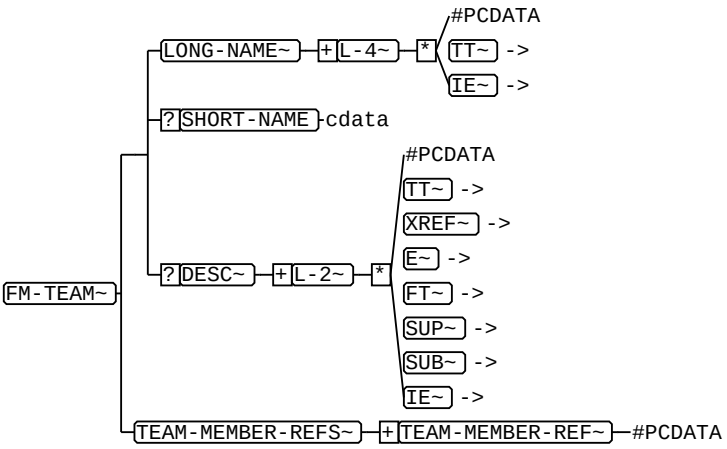
Table 102: Attributes for FM-TASK-SETS

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-TASK-SETS	
[F-NAMESPACE]	names	fixed	FM-TASK-SET	
[ID]	id	required		

Table 102 (Cont.): Attributes for FM-TASK-SETS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

8.7 FM-TEAM



images/FM-TEAM.bmp

Figure 104: DTD-diagram for FM-TEAM

Child elements **<long-name> <short-name> <desc> <team-member-refs>**

parent elements **<fm-teams>**

Table 103: Attributes for FM-TEAM

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-TEAM	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description

A Fm-Team has references to Fm-Team-Members. Each team is named within the Long/Short-Name-element.

8.8 FM-TEAMS

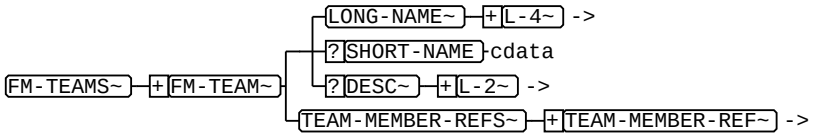


Figure 105: DTD-diagram for FM-TEAMS

Child elements **<fm-team>**

parent elements **<fm-head>**

Table 104: Attributes for FM-TEAMS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description

This is a collection with all existing FM-Teams in the instance.

8.9 FM-TOOL

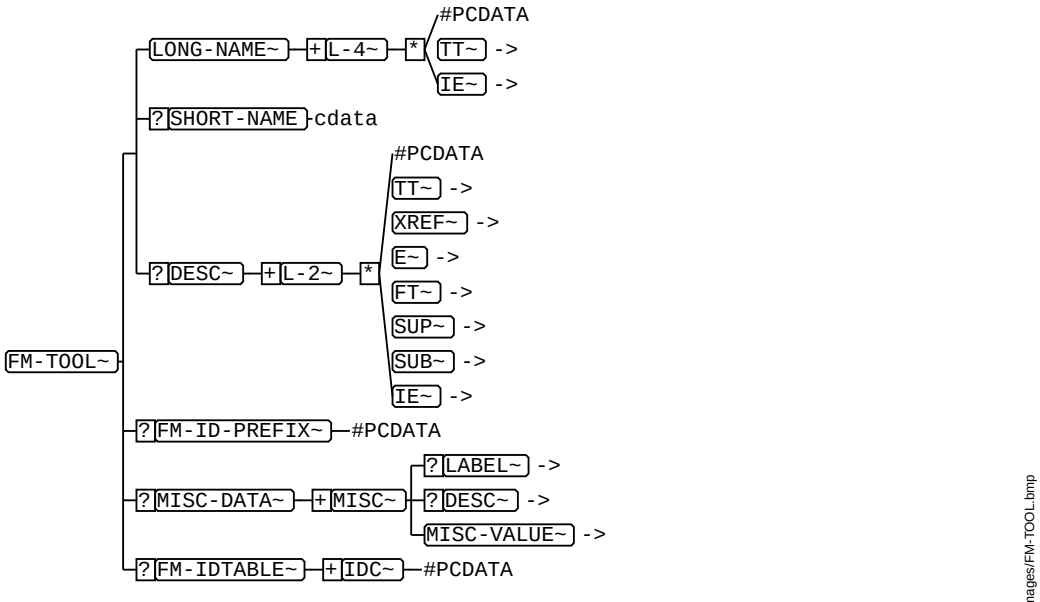


Figure 106: DTD-diagram for FM-TOOL

Child elements **<long-name> <short-name> <desc> <fm-id-prefix> <misc-data> <fm-idtable>**

parent elements **<fm-tool-data>**

Table 105: Attributes for FM-TOOL

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FM-TOOL	
[ID]	id	required		
[ID-AWARE]	nmtkgrp	default	ID-AWARE ID-AWARE NO-ID-AWARE	
[S]	cdata	implied		
[T]	cdata	implied		

8.10 FM-TOOL-DATA

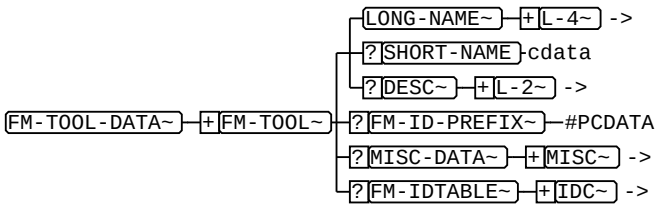


Figure 107: DTD-diagram for FM-TOOL-DATA

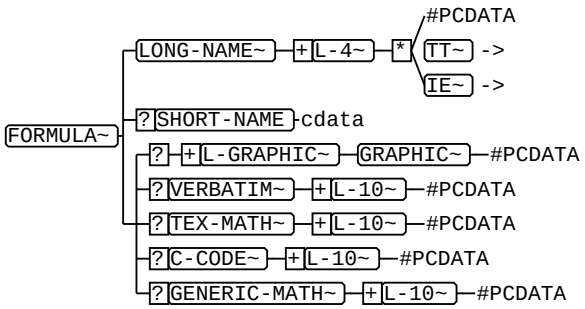
Child elements **<fm-tool>**

parent elements **<msrfmea>**

Table 106: Attributes for FM-TOOL-DATA

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

8.11 FORMULA



images/FORMULA.bmp

Figure 108: DTD-diagram for FORMULA

Child elements **<long-name> <short-name> <l-graphic> <verbatim> <tex-math> <c-code> <generic-math>**

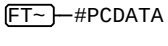
parent elements **<chapter> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 107: Attributes for FORMULA

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FORMULA	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

8.12 FT



images/FT.bmp

Figure 109: DTD-diagram for FT

Child elements none

parent elements **<l-1> <l-2>**

Table 108: Attributes for FT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Identifies the body of a footnote in the document.

9 GENERAL-PROJECT-DATA ... GRAPHIC

9.1 GENERAL-PROJECT-DATA

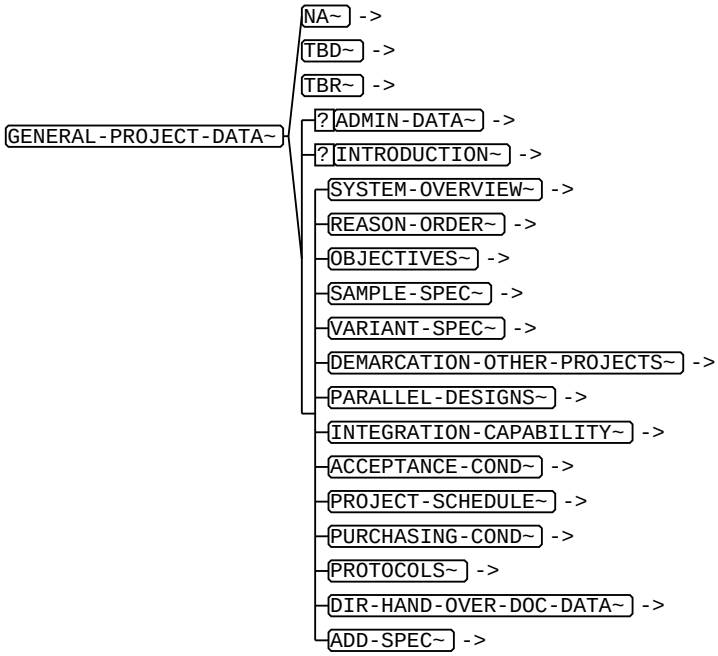


Figure 110: DTD-diagram for GENERAL-PROJECT-DATA

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <system-overview> <reason-order> <objectives> <sample-spec> <variant-spec> <demarcation-other-projects> <parallel-designs> <integration-capability> <acceptance-cond> <project-schedule> <purchasing-cond> <protocols> <dir-hand-over-doc-data> <add-spec>**

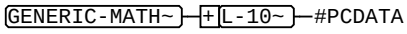
parent elements **<company>**

Table 109: Attributes for GENERAL-PROJECT-DATA

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specification of all general project data.

9.2 GENERIC-MATH



images/GENERIC-MATH.bmp

Figure 111: DTD-diagram for GENERIC-MATH

Child elements **<l-10>**

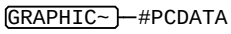
parent elements **<formula>**

Table 110: Attributes for GENERIC-MATH

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

9.3 GRAPHIC



images/GRAPHIC.bmp

Figure 112: DTD-diagram for GRAPHIC

Child elements none

parent elements **<l-graphic>**

Table 111: Attributes for GRAPHIC

Name	Type	Class	Value	Remark
[CATEGORY]	nmtkgrp	implied	BARCODE CONCEPTUAL ENGINEERING FLOWCHART GRAPH LOGO SCHEMATIC WAVEFORM	
[FILENAME]	cdata	required		
[FIT]	number	default	0	
[HEIGHT]	cdata	implied		

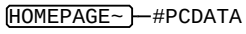
Table 111 (Cont.): Attributes for GRAPHIC

Name	Type	Class	Value	Remark
[NOTATION]	cdata	required		
[S]	cdata	implied		
[SCALE]	cdata	implied		
[T]	cdata	implied		
[WIDTH]	cdata	implied		

Description Identifies a graphic. A graphic is stored in difference formats (notation attribute) and is used as an illustration in the document.

10 HOMEPAGE ... HOMEPAGE

10.1 HOMEPAGE



images/HOMEPAGE.bmp

Figure 113: DTD-diagram for HOMEPAGE

Child elements none

parent elements **<team-member>**

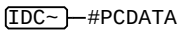
Table 112: Attributes for HOMEPAGE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Homepage of a team member

11 IDC ... ITEM-LABEL

11.1 IDC



images/IDC.bmp

Figure 114: DTD-diagram for IDC

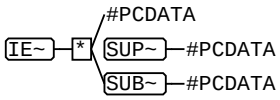
Child elements none

parent elements **<fm-idtable>**

Table 113: Attributes for IDC

Name	Type	Class	Value	Remark
[MAPPED-ID]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

11.2 IE



images/IE.bmp

Figure 115: DTD-diagram for IE

Child elements **<sup> <sub>**

parent elements **<l-1> <l-2> <l-4> <long-name-1>**

Table 114: Attributes for IE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TYPE]	cdata	implied		

Description Identifies text of an item to be extracted for the index.

11.3 INDENT-SAMPLE

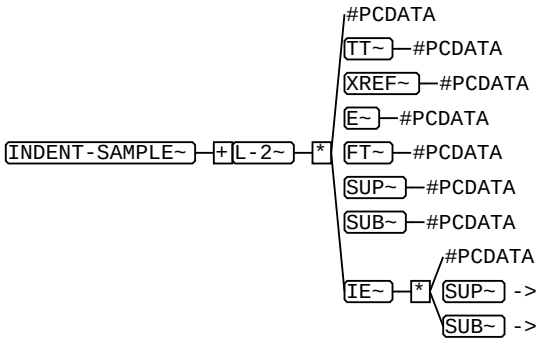


Figure 116: DTD-diagram for INDENT-SAMPLE

Child elements **<l-2>**

parent elements **<labeled-list>**

Table 115: Attributes for INDENT-SAMPLE

Name	Type	Class	Value	Remark
[ITEM-LABEL-POS]	nmtkgrp	default	NO-NEWLINE NO-NEWLINE NEWLINE NEWLINE-IF-NECESSARY	
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

11.4 INPUT

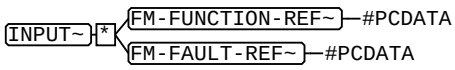


Figure 117: DTD-diagram for INPUT

Child elements **<fm-function-ref> <fm-fault-ref>**

parent elements **<fm-interface>**

Table 116: Attributes for INPUT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element defines the input of the actual function.

11.5 INTEGRATION-CAPABILITY

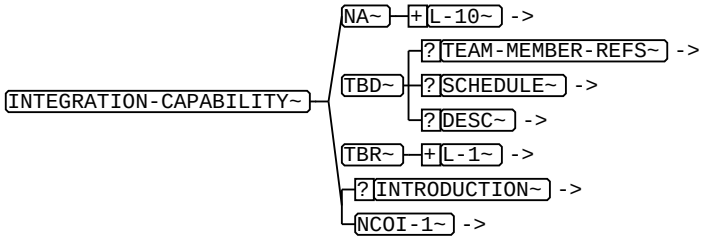


Figure 118: DTD-diagram for INTEGRATION-CAPABILITY

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

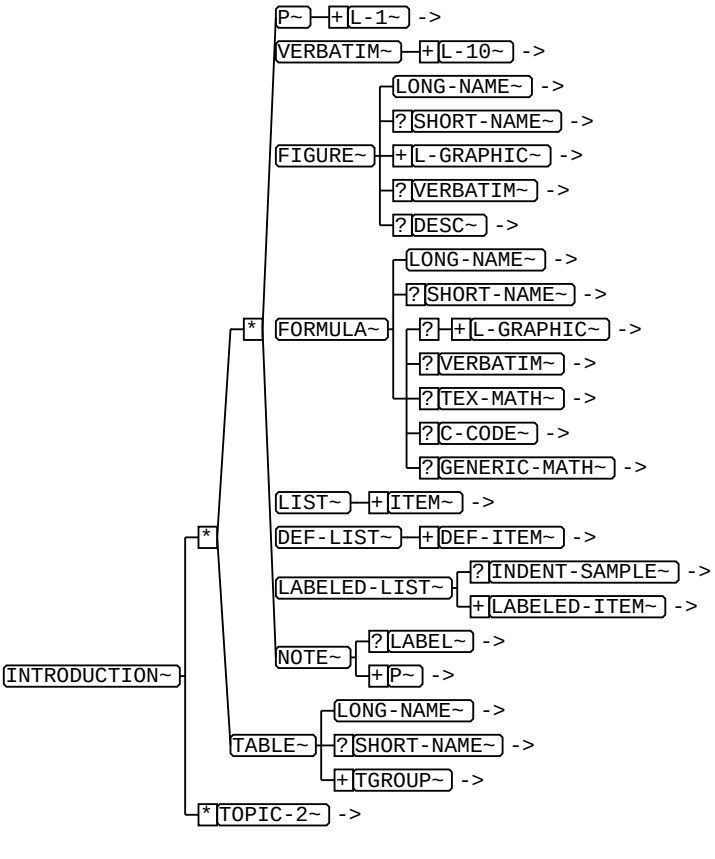
parent elements **<general-project-data>**

Table 117: Attributes for INTEGRATION-CAPABILITY

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains all information about the integration capability of this project.

11.6 INTRODUCTION



images/INTRODUCTION.bmp

Figure 119: DTD-diagram for INTRODUCTION

Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table> <topic-2>**

parent elements **<acceptance-cond> <add-spec> <company-revision-info> <demarcation-other-projects> <dir-hand-over-doc-data> <general-project-data> <integration-capability> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <system-overview> <variant-spec>**

Table 118: Attributes for INTRODUCTION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element can be used to create an introduction.

11.7 ITEM

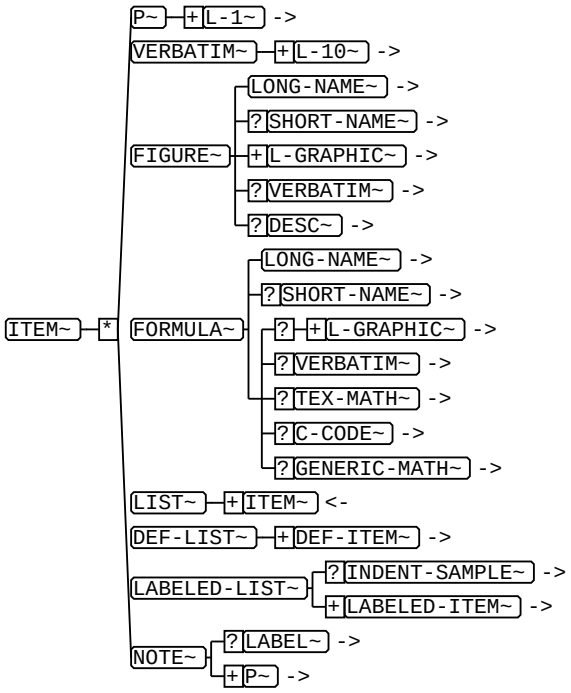


Figure 120: DTD-diagram for ITEM

Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note>**

parent elements **<list>**

Table 119: Attributes for ITEM

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Identifes an item typically occurring within a list.

11.8 ITEM-LABEL

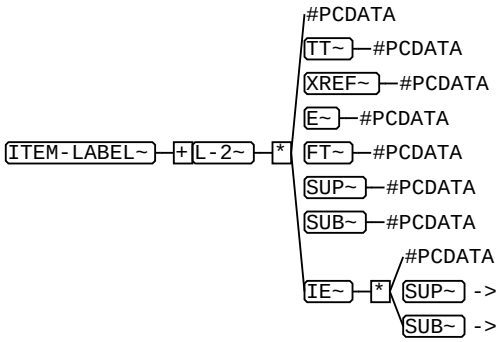


Figure 121: DTD-diagram for ITEM-LABEL

Child elements **<l-2>**

parent elements **<labeled-item>**

Table 120: Attributes for ITEM-LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

12 L-1 ... LONG-NAME-1

12.1 L-1

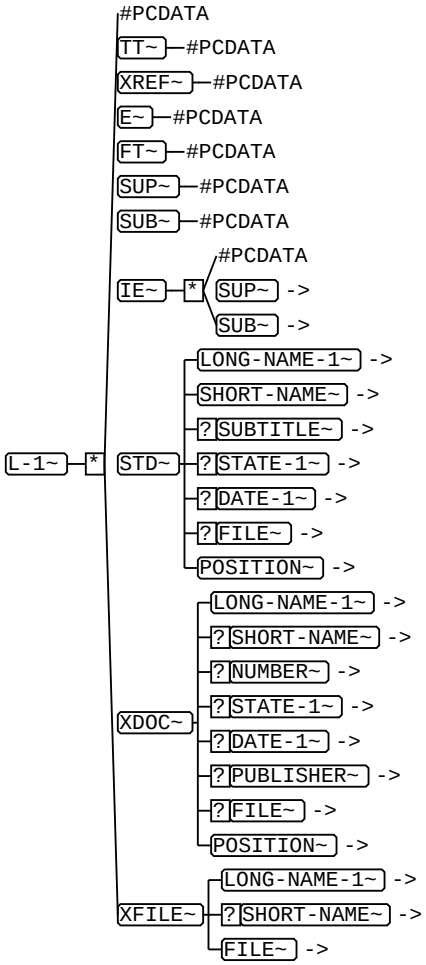


Figure 122: DTD-diagram for L-1

Child elements **<tt> <xref> <e> <ft> <sup> <sub> <ie> <std> <xdoc> <xfile>**

parent elements **<p> <tbr>**

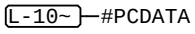
Table 121: Attributes for L-1

Name	Type	Class	Value	Remark
[L]	cdata	required		
[S]	cdata	implied		

Table 121 (Cont.): Attributes for L-1

Name	Type	Class	Value	Remark
[T]	cdata	implied		

12.2 L-10



images/L-10.bmp

Figure 123: DTD-diagram for L-10

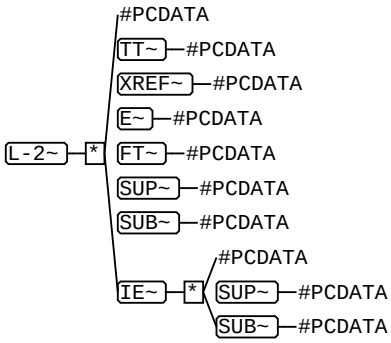
Child elements none

parent elements **<c-code> <date> <doc-label> <generic-math> <na> <revision-label> <role> <state> <tex-math> <used-languages> <verbatim>**

Table 122: Attributes for L-10

Name	Type	Class	Value	Remark
[L]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

12.3 L-2



images/L-2.bmp

Figure 124: DTD-diagram for L-2

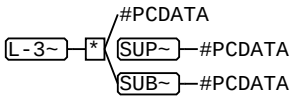
Child elements **<tt> <xref> <e> <ft> <sup> <sub> <ie>**

parent elements **<change> <desc> <fm-action-comment> <indent-sample> <item-label> <reason>**

Table 123: Attributes for L-2

Name	Type	Class	Value	Remark
[L]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

12.4 L-3



images/L-3.bmp

Figure 125: DTD-diagram for L-3

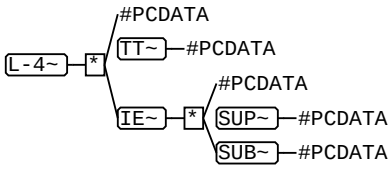
Child elements **<sup> <sub>**

parent elements **<text> <unit>**

Table 124: Attributes for L-3

Name	Type	Class	Value	Remark
[L]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

12.5 L-4



images/L-4.bmp

Figure 126: DTD-diagram for L-4

Child elements **<tt> <ie>**

parent elements **<label> <long-name>**

Table 125: Attributes for L-4

Name	Type	Class	Value	Remark
[L]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

12.6 L-GRAPHIC

images/L-GRAPHIC.bmp

Figure 127: DTD-diagram for L-GRAPHIC

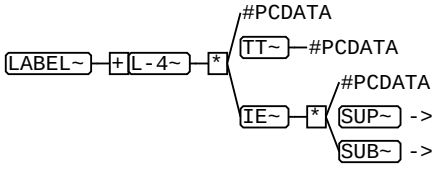
Child elements **<graphic>**

parent elements **<figure> <formula>**

Table 126: Attributes for L-GRAPHIC

Name	Type	Class	Value	Remark
[L]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

12.7 LABEL



images/LABEL.bmp

Figure 128: DTD-diagram for LABEL

Child elements **<l-4>**

parent elements **<misc> <note> <prms>**

Table 127: Attributes for LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contents a short label.

12.8 LABELED-ITEM

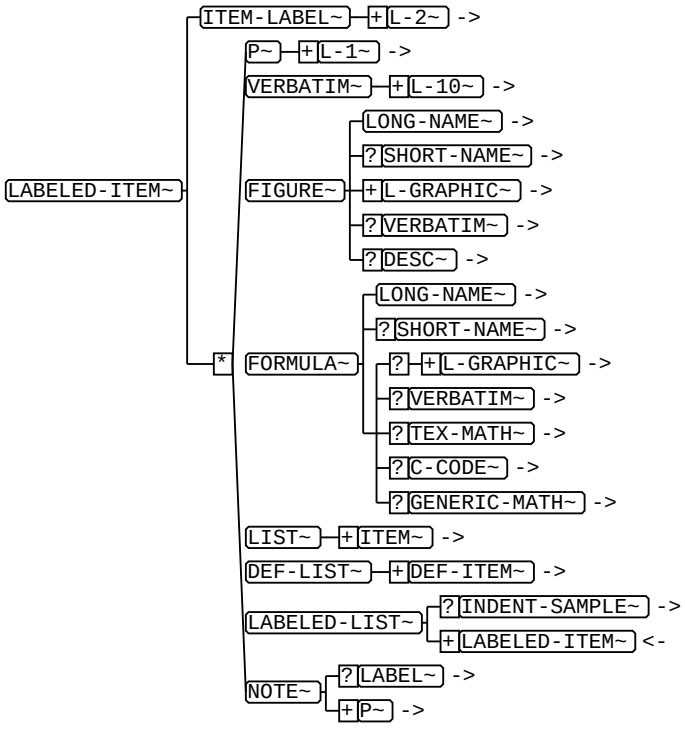


Figure 129: DTD-diagram for LABELED-ITEM

Child elements **<item-label> <p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note>**

parent elements **<labeled-list>**

Table 128: Attributes for LABELED-ITEM

Name	Type	Class	Value	Remark
[HELP-ENTRY]	cdata	implied		
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

12.9 LABELED-LIST

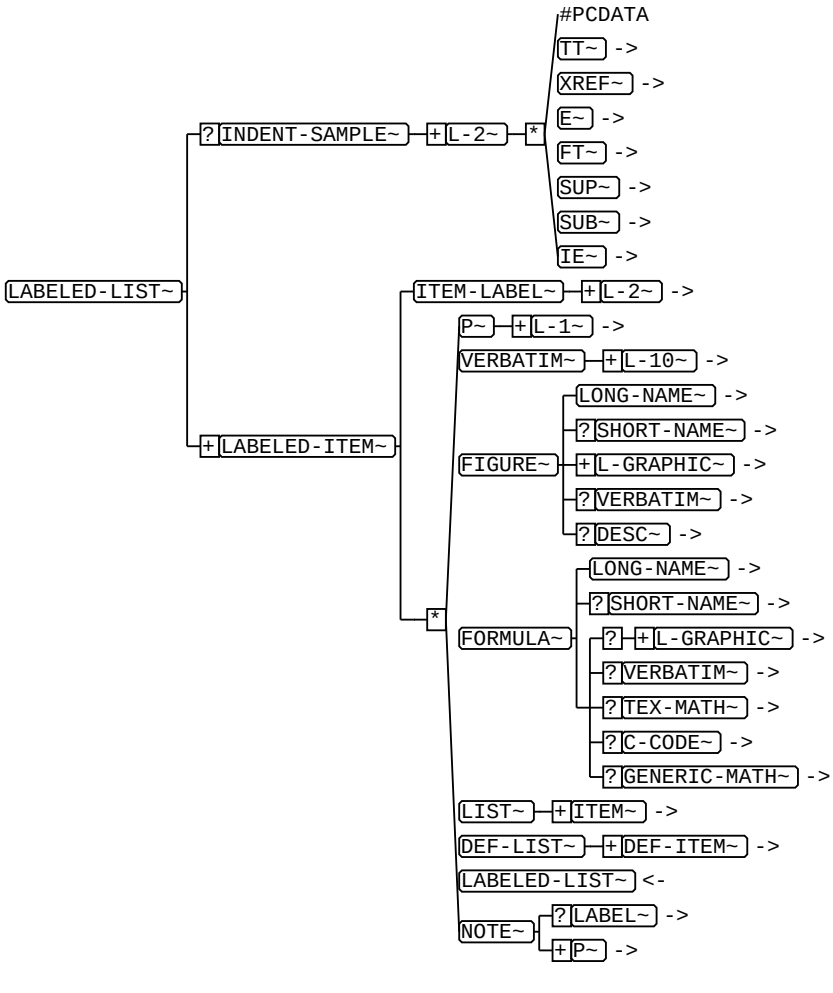


Figure 130: DTD-diagram for LABELED-LIST

Child elements **<indent-sample> <labeled-item>**

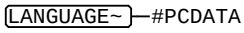
parent elements **<chapter> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 129: Attributes for LABELED-LIST

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

12.10 LANGUAGE



images/LANGUAGE.bmp

Figure 131: DTD-diagram for LANGUAGE

Child elements none

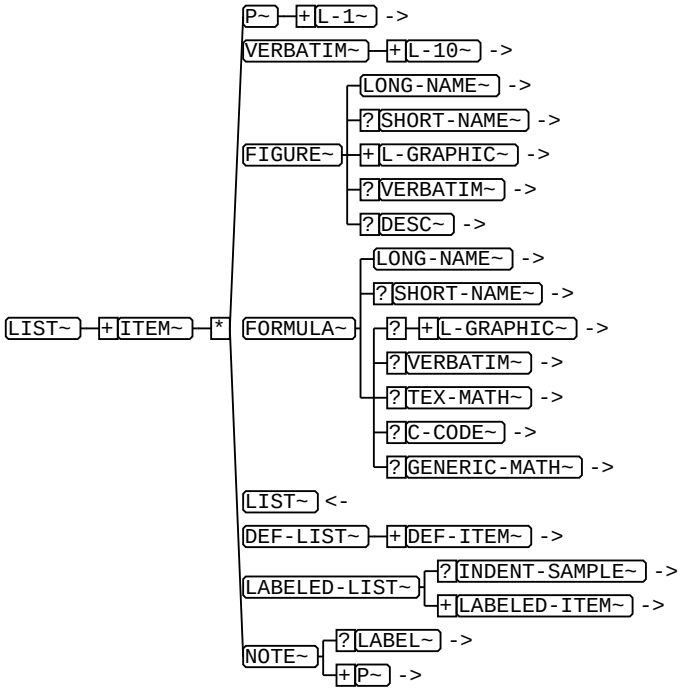
parent elements **<admin-data>**

Table 130: Attributes for LANGUAGE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Defines the laguage of the document (fragment).

12.11 LIST



images/LIST.bmp

Figure 132: DTD-diagram for LIST

Child elements **<item>**

parent elements **<chapter> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 131: Attributes for LIST

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TYPE]	nmtkgrp	required	UNNUMBER NUMBER	

Description Identifies a list which is composed of one or more list items. There are two types of lists, numbered and unnumbered lists. They are classified by the type attribute.

12.12 LITE-REVISION

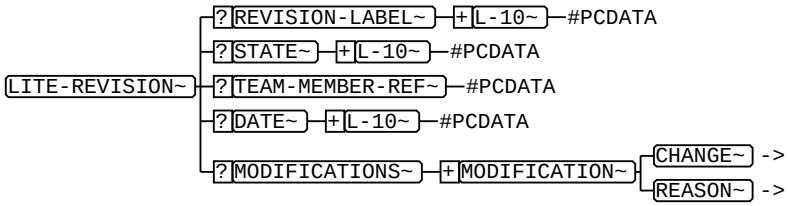


Figure 133: DTD-diagram for LITE-REVISION

Child elements **<revision-label> <state> <team-member-ref> <date> <modifications>**

parent elements **<lite-revisions>**

Table 132: Attributes for LITE-REVISION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

12.13 LITE-REVISIONS

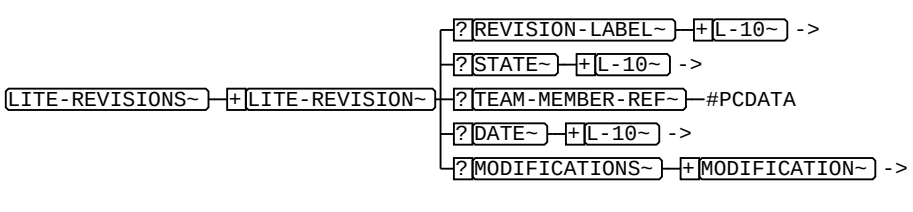


Figure 134: DTD-diagram for LITE-REVISIONS

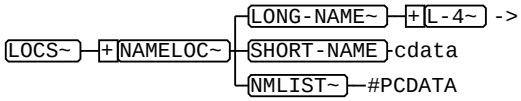
Child elements **<lite-revision>**

parent elements **<admin-data>**

Table 133: Attributes for LITE-REVISIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

12.14 LOCS



images/LOCS.bmp

Figure 135: DTD-diagram for LOCS

Child elements **<nameloc>**

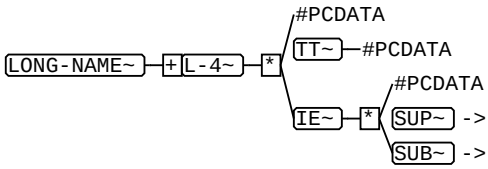
parent elements **<msrfmea>**

Table 134: Attributes for LOCS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

12.15 LONG-NAME



images/LONG-NAME.bmp

Figure 136: DTD-diagram for LONG-NAME

Child elements **<l-4>**

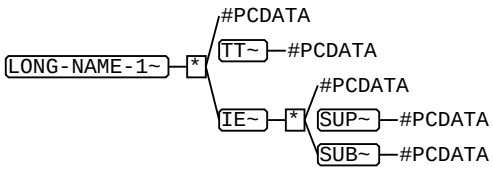
parent elements **<chapter> <company> <def-item> <figure> <fm-action> <fm-action-type> <fm-fault> <fm-fault-type> <fm-form-sheet> <fm-function> <fm-function-type> <fm-structure> <fm-structure-element> <fm-task-set> <fm-task-sets> <fm-team> <fm-tool> <formula> <name-loc> <prm> <sample> <table> <team-member> <topic-1> <topic-2> <variant-char> <variant-def>**

Table 135: Attributes for LONG-NAME

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Defines a long name (label, title). This element exists only in elements with identifier.

12.16 LONG-NAME-1



images/LONG-NAME-1.bmp

Figure 137: DTD-diagram for LONG-NAME-1

Child elements **<tt> <ie>**

parent elements **<std> <xdoc> <xfile>**

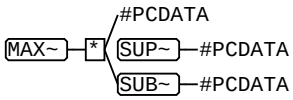
Table 136: Attributes for LONG-NAME-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

13 MAX ... MSRFMEA

13.1 MAX



images/MAX.bmp

Figure 138: DTD-diagram for MAX

Child elements **<sup> <sub>**

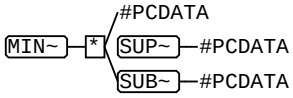
parent elements **<prm-char>**

Table 137: Attributes for MAX

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element defines the maximum value of a typical range. When you define <min> and <max> you have to leave <typ> empty.

13.2 MIN



images/MIN.bmp

Figure 139: DTD-diagram for MIN

Child elements **<sup> <sub>**

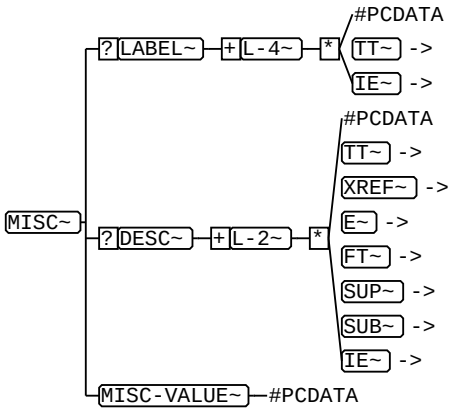
parent elements **<prm-char>**

Table 138: Attributes for MIN

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Defines the minimum value of a typical range. When you define <min> and <max> you have to leave <typ> empty.

13.3 MISC



images/MISC.bmp

Figure 140: DTD-diagram for MISC

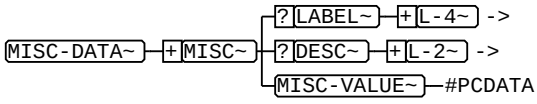
Child elements **<label> <desc> <misc-value>**

parent elements **<misc-data>**

Table 139: Attributes for MISC

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

13.4 MISC-DATA



images/MISC-DATA.bmp

Figure 141: DTD-diagram for MISC-DATA

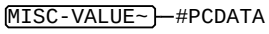
Child elements **<misc>**

parent elements **<fm-form-sheet> <fm-structure> <fm-tool> <user-cover-sheet>**

Table 140: Attributes for MISC-DATA

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

13.5 MISC-VALUE



images/MISC-VALUE.bmp

Figure 142: DTD-diagram for MISC-VALUE

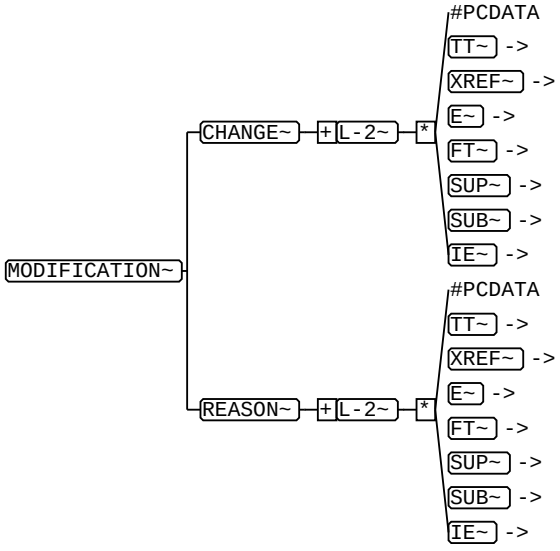
Child elements none

parent elements **<misc>**

Table 141: Attributes for MISC-VALUE

Name	Type	Class	Value	Remark
[FIELD-NAME]	cdata	required		
[S]	cdata	implied		
[T]	cdata	implied		

13.6 MODIFICATION



images/MODIFICATION.bmp

Figure 143: DTD-diagram for MODIFICATION

Child elements **<change> <reason>**

parent elements **<modifications>**

Table 142: Attributes for MODIFICATION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TYPE]	nmtkgrp	required	CONTENT-RELATED DOC-RELATED	

Description Description of a modification (value before and after the changes, position of change).

13.7 MODIFICATIONS

Figure 144: DTD-diagram for MODIFICATIONS

Child elements **<modification>**

parent elements **<doc-revision> <lite-revision>**

Table 143: Attributes for MODIFICATIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains all changes that are made in the document.

13.8 MSRFMEA

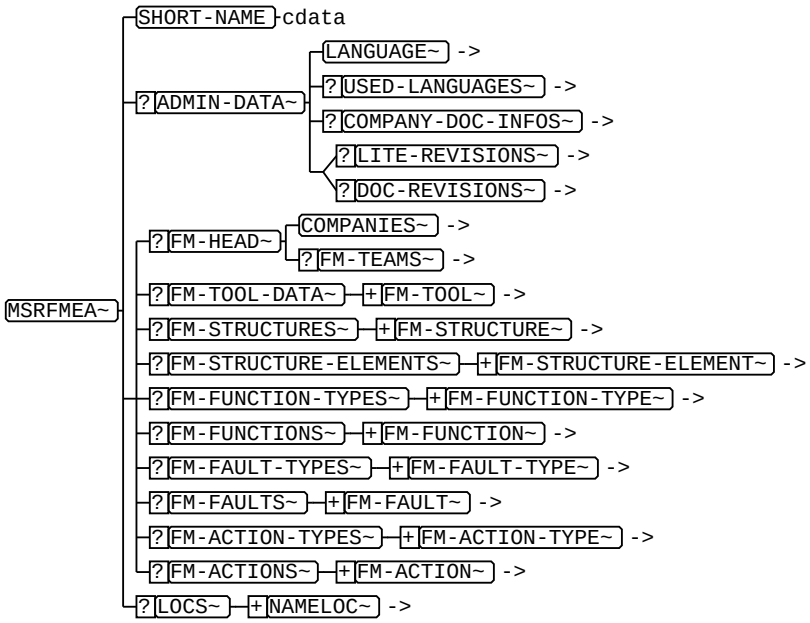


Figure 145: DTD-diagram for MSRFMEA

Child elements **<short-name> <admin-data> <fm-head> <fm-tool-data> <fm-structures> <fm-structure-elements> <fm-function-types> <fm-functions> <fm-fault-types> <fm-faults> <fm-action-types> <fm-actions> <locs>**

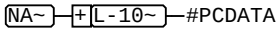
parent elements none

Table 144: Attributes for MSRFMEA

Name	Type	Class	Value	Remark
[F-NAMESPACE]	names	fixed	CHAPTER COMPANY DEF-ITEM FIGURE FM-ACTION FM-ACTION-TYPE FM-FAULT FM-FAULT-TYPE FM-FORM-SHEET FM-FUNCTION FM-FUNCTION-TYPE FM-STRUCTURE FM-STRUCTURE-ELEMENT FM-TASK-SET FM-TASK-SETS FM-TEAM FM-TOOL FORMULA PRM SAMPLE STD TABLE TEAM-MEMBER TOPIC VARIANT-CHAR VARIANT-DEF X-DOC XFILE EXTERNAL	
[F-PUBID]	cdata	fixed	-//MSR//DTD MSR FMEA DTD:V1.5.0:ML:MSRFMEA.DTD//EN	
[HYTIME]	name	fixed	HYDOC	
[PUBID]	cdata	default	-//MSR//DTD MSR FMEA DTD:V1.5.0:ML:MSRFMEA.DTD//EN	
[S]	cdata	implied		
[T]	cdata	implied		

14 NA ... NUMBER

14.1 NA



images/NA.bmp

Figure 146: DTD-diagram for NA

Child elements **<l-10>**

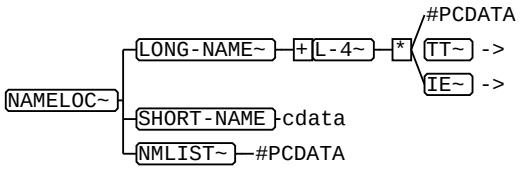
parent elements **<acceptance-cond> <add-spec> <demarcation-other-projects> <dir-hand-over-doc-data> <general-project-data> <integration-capability> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <system-overview> <variant-spec>**

Table 145: Attributes for NA

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifies that this information (see parent element) isn't applicable for this project . The context of this element describes the reason why the information isn't applicable.

14.2 NAMELOC



images/NAMELOC.bmp

Figure 147: DTD-diagram for NAMELOC

Child elements **<long-name> <short-name> <nmlist>**

parent elements **<locs>**

Table 146: Attributes for NAMELOC

Name	Type	Class	Value	Remark
[HYTIME]	name	fixed	NAMELOC	
[ID]	id	required		

Table 146 (Cont.): Attributes for NAMELOC

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

14.3 NCOI-1

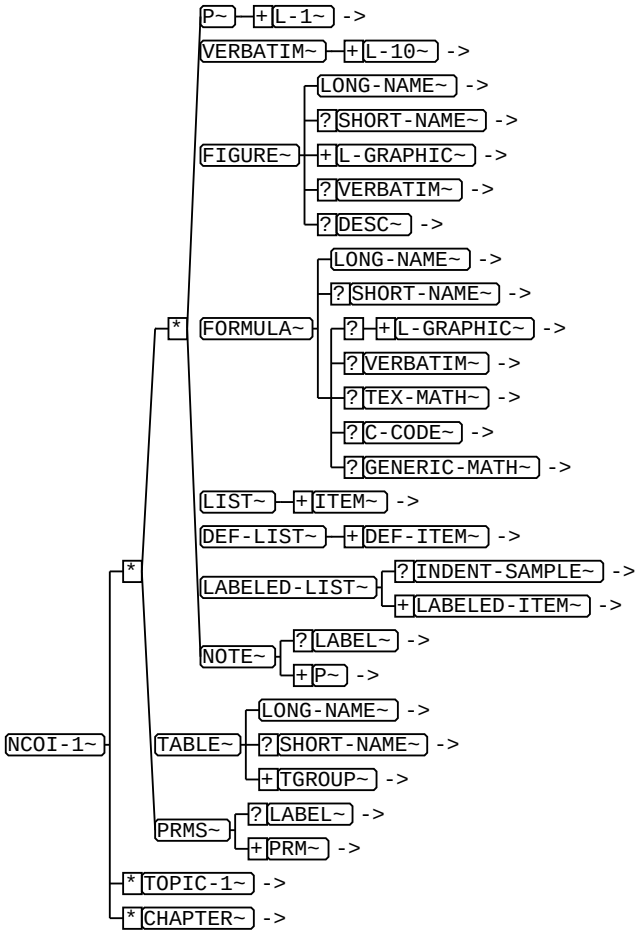


Figure 148: DTD-diagram for NCOI-1

Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table> <prms> <topic-1> <chapter>**

parent elements **<acceptance-cond> <add-spec> <demarcation-other-projects> <dir-hand-over-doc-data> <integration-capability> <objectives>**

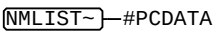
<parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample> <system-overview>

Table 147: Attributes for NCOI-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contents the following objects to define a 'none content orientend information': topics tables figures paragraphs lists Only use these objects when you can't define all your informations in other elements!

14.4 NMLIST



images/NMLIST.bmp

Figure 149: DTD-diagram for NMLIST

Child elements none

parent elements **<nameloc>**

Table 148: Attributes for NMLIST

Name	Type	Class	Value	Remark
[DOCORSUB]	entity	implied		
[HYTIME]	name	fixed	NMLIST	
[NAMETYPE]	nmtkgrp	default	ELEMENT ENTITY ELEMENT	
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

14.5 NOTE

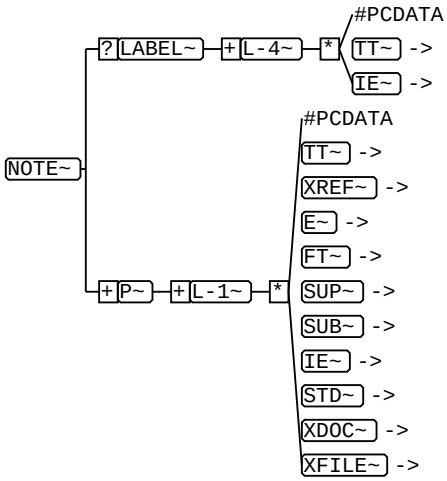


Figure 150: DTD-diagram for NOTE

Child elements **<label> <p>**

parent elements **<chapter> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 149: Attributes for NOTE

Name	Type	Class	Value	Remark
[NOTE-TYPE]	nmtkgrp	required	CAUTION HINT TIP INSTRUCTION EX-ERCISE OTHER	
[S]	cdata	implied		
[T]	cdata	implied		
[USER-DEFINED-TYPE]	cdata	implied		

Description Null

14.6 NUMBER

Figure 151: DTD-diagram for NUMBER

Child elements none

parent elements **<xdoc>**

Table 150: Attributes for NUMBER

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a number.

15 OBJECTIVES ... OUTPUT

15.1 OBJECTIVES

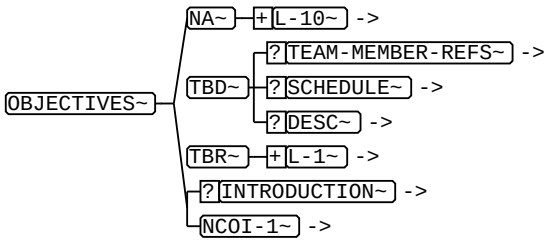


Figure 152: DTD-diagram for OBJECTIVES

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 151: Attributes for OBJECTIVES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description In ths element the objectives of the project can be specified.

15.2 OUTPUT

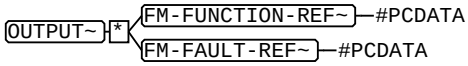


Figure 153: DTD-diagram for OUTPUT

Child elements **<fm-function-ref> <fm-fault-ref>**

parent elements **<fm-interface>**

Table 152: Attributes for OUTPUT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of the output of a function.

16 P ... PURCHASING-COND

16.1 P

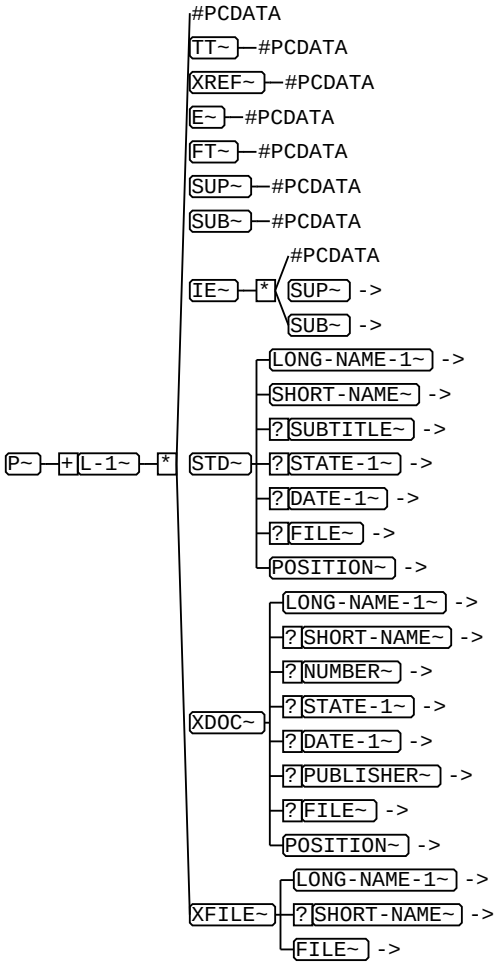


Figure 154: DTD-diagram for P

Child elements **<l-1>**

parent elements **<chapter> <cond> <def> <entry> <fm-form-sheet-presentation> <introduction> <item> <labeled-item> <ncoi-1> <note> <remark> <topic-1> <topic-2>**

Table 153: Attributes for P

Name	Type	Class	Value	Remark
[HELP-ENTRY]	cdata	implied		
[S]	cdata	implied		
[T]	cdata	implied		

Description Identifies text within a paragraph.

16.2 PARALLEL-DESIGNS

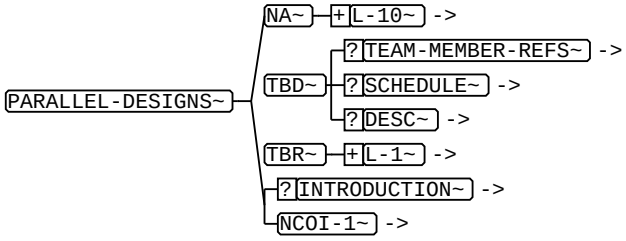


Figure 155: DTD-diagram for PARALLEL-DESIGNS

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 154: Attributes for PARALLEL-DESIGNS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Description of projects with concurrent informations (part type specifications).

16.3 PART-NUMBER

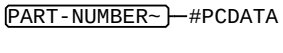


Figure 156: DTD-diagram for PART-NUMBER

Child elements none

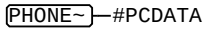
parent elements **<fm-structure-element>**

Table 155: Attributes for PART-NUMBER

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element defines the number of a part.

16.4 PHONE



images/PHONE.bmp

Figure 157: DTD-diagram for PHONE

Child elements none

parent elements **<team-member>**

Table 156: Attributes for PHONE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a phone number.

16.5 POSITION

images/POSITION.bmp

Figure 158: DTD-diagram for POSITION

Child elements none

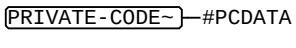
parent elements **<std> <xdoc>**

Table 157: Attributes for POSITION

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Describes the importent position in the standard or external document.

16.6 PRIVATE-CODE



images/PRIVATE-CODE.bmp

Figure 159: DTD-diagram for PRIVATE-CODE

Child elements none

parent elements **<private-codes>**

Table 158: Attributes for PRIVATE-CODE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TYPE]	cdata	implied		

Description This element allows you to interchange one private (encoded) data.

16.7 PRIVATE-CODES

images/PRIVATE-CODES.bmp

Figure 160: DTD-diagram for PRIVATE-CODES

Child elements **<private-code>**

parent elements **<company-doc-info>**

Table 159: Attributes for PRIVATE-CODES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element allows you to interchange private (encoded) data.

16.8 PRM

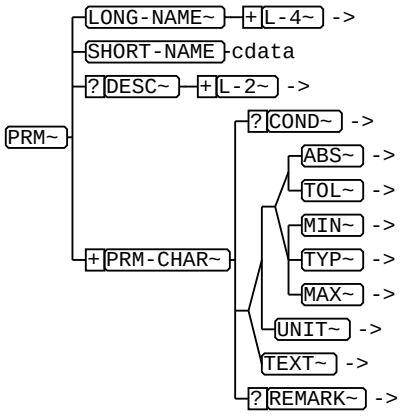


Figure 161: DTD-diagram for PRM

Child elements **<long-name> <short-name> <desc> <prm-char>**

parent elements **<prms>**

Table 160: Attributes for PRM

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	PRM	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a numeric or alphanumeric (without <operator>, <unit> and <tolerance>) parameter.

16.9 PRM-CHAR

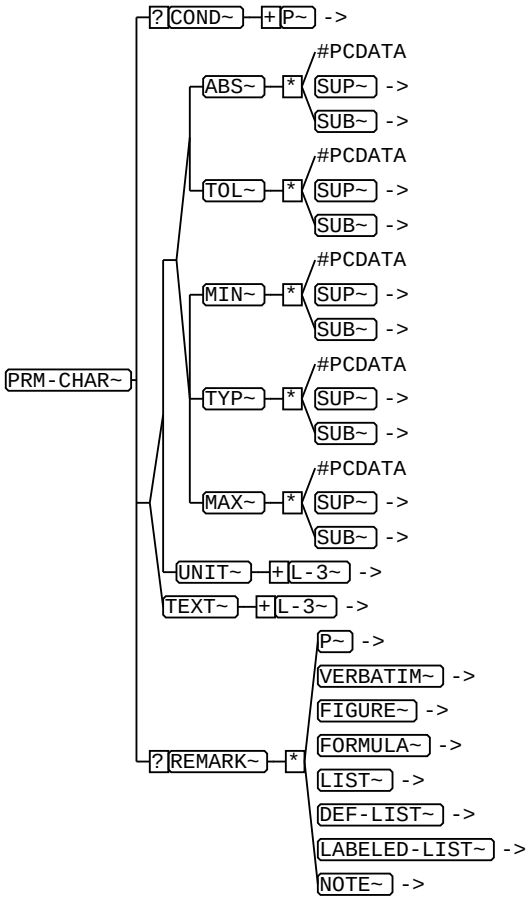


Figure 162: DTD-diagram for PRM-CHAR

Child elements **<cond> <abs> <tol> <min> <typ> <max> <unit> <text> <remark>**

parent elements **<prm>**

Table 161: Attributes for PRM-CHAR

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description A parameter consits of one or more characteristics. Each characteristic groups an <operator>, <value>, <unit>, <tolerance> and <cond>. Sence it is possible to define a range with two parameter characterists.

16.10 PRMS

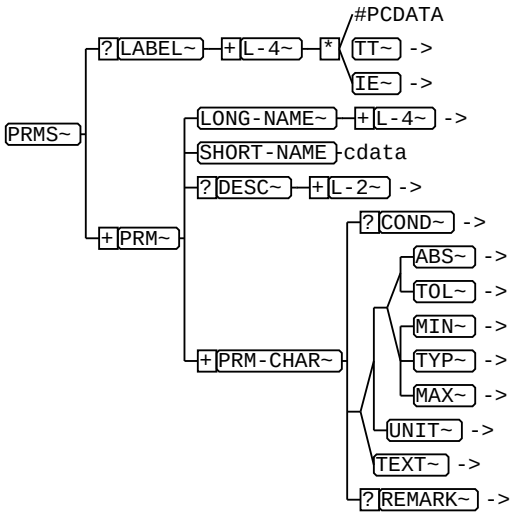


Figure 163: DTD-diagram for PRMS

Child elements **<label> <prm>**

parent elements **<chapter> <ncoi-1> <topic-1>**

Table 162: Attributes for PRMS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Groups one or more parameters to a parameter table.

16.11 PROJECT-SCHEDULE

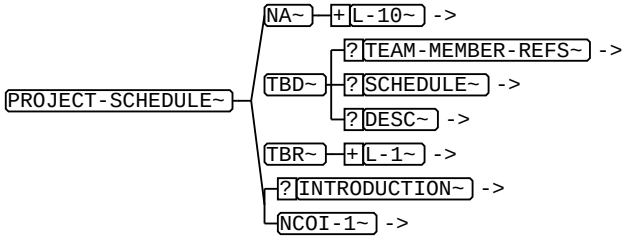


Figure 164: DTD-diagram for PROJECT-SCHEDULE

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 163: Attributes for PROJECT-SCHEDULE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains a project schedule.

16.12 PROTOCOLS

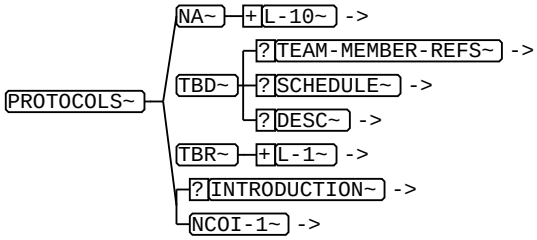


Figure 165: DTD-diagram for PROTOCOLS

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 164: Attributes for PROTOCOLS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains all protocols (from the actual company) of this project.

16.13 PUBLISHER

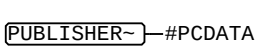


Figure 166: DTD-diagram for PUBLISHER

Child elements none

parent elements **<xdoc>**

Table 165: Attributes for PUBLISHER

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of the publisher of the external document.

16.14 PURCHASING-COND

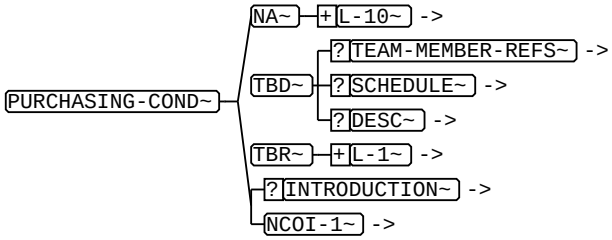


Figure 167: DTD-diagram for PURCHASING-COND

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 166: Attributes for PURCHASING-COND

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element groups existing purchasing conditions.

17 REASON ... ROW

17.1 REASON

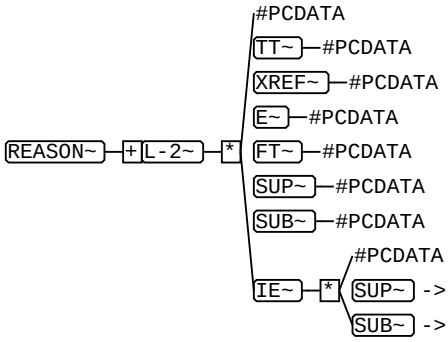


Figure 168: DTD-diagram for REASON

Child elements **<l-2>**

parent elements **<modification>**

Table 167: Attributes for REASON

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Reason of the change.

17.2 REASON-ORDER

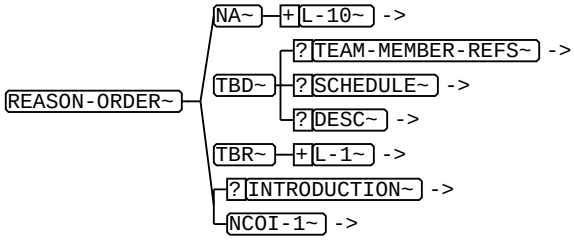


Figure 169: DTD-diagram for REASON-ORDER

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 168: Attributes for REASON-ORDER

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Reason of the order.

17.3 REMARK

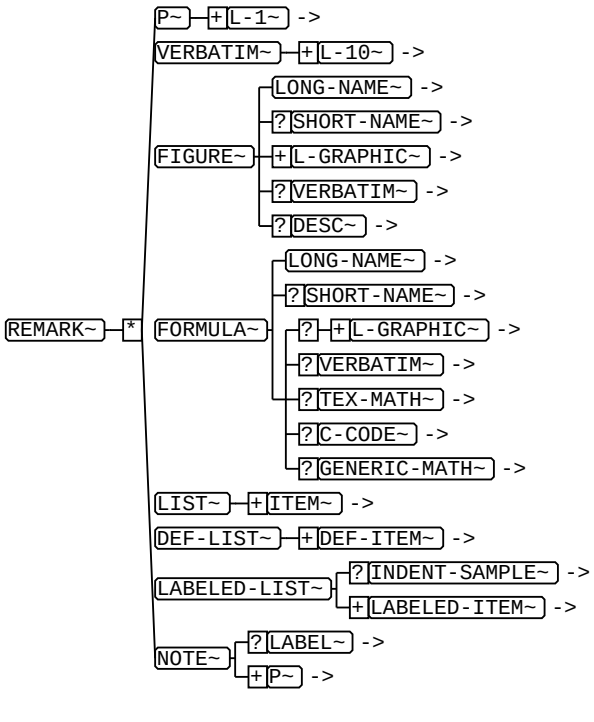


Figure 170: DTD-diagram for REMARK

Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note>**

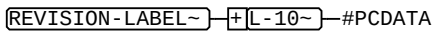
parent elements **<prm-char>**

Table 169: Attributes for REMARK

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Defines a remark.

17.4 REVISION-LABEL



images/REVISION-LABEL.bmp

Figure 171: DTD-diagram for REVISION-LABEL

Child elements **<l-10>**

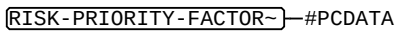
parent elements **<company-revision-info> <lite-revision>**

Table 170: Attributes for REVISION-LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Label of a revision.

17.5 RISK-PRIORITY-FACTOR



images/RISK-PRIORITY-FACTOR.bmp

Figure 172: DTD-diagram for RISK-PRIORITY-FACTOR

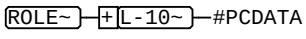
Child elements none

parent elements **<fm-counter-tasks> <fm-detection-tasks> <fm-significance>**

Table 171: Attributes for RISK-PRIORITY-FACTOR

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

17.6 ROLE



images/ROLE.bmp

Figure 173: DTD-diagram for ROLE

Child elements **<l-10>**

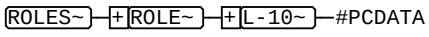
parent elements **<roles>**

Table 172: Attributes for ROLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a team member role (e.g. project leader).

17.7 ROLES



images/ROLES.bmp

Figure 174: DTD-diagram for ROLES

Child elements **<role>**

parent elements **<team-member>**

Table 173: Attributes for ROLES

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	role:selection	
[S]	cdata	implied		
[T]	cdata	implied		

Description Each team member has one or more roles in the project.

17.8 ROW

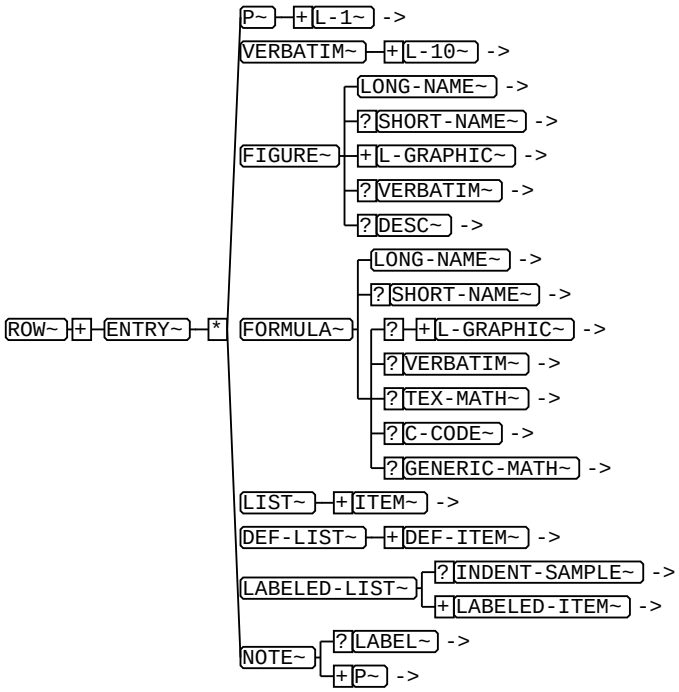


Figure 175: DTD-diagram for ROW

Child elements **<entry>**

parent elements **<tbody> <tfoot> <thead>**

Table 174: Attributes for ROW

Name	Type	Class	Value	Remark
[ROWSEP]	number	implied		
[S]	cdata	implied		
[T]	cdata	implied		

Description Identifies the row information in a <tgroup> of a table. Default values come from the <table>, <tgroup>, <colspec> or <spanspec> attributes.

18 SAMPLE ... SYSTEM-OVERVIEW

18.1 SAMPLE

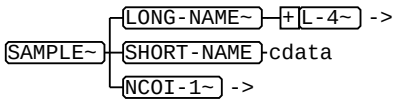


Figure 176: DTD-diagram for SAMPLE

Child elements **<long-name> <short-name> <ncoi-1>**

parent elements **<samples>**

Table 175: Attributes for SAMPLE

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	long-name:selection	
[F-ID-CLASS]	name	fixed	SAMPLE	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a sample.

18.2 SAMPLE-REF

Figure 177: DTD-diagram for SAMPLE-REF

Child elements none

parent elements **<schedule>**

Table 176: Attributes for SAMPLE-REF

Name	Type	Class	Value	Remark
[HYNAMES]	names	fixed	LINKEND SAMPLE	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[SAMPLE]	idref	required		

Table 176 (Cont.): Attributes for SAMPLE-REF

Name	Type	Class	Value	Remark
[T]	cdata	implied		

Description Reference to a sample.

18.3 SAMPLE-SPEC

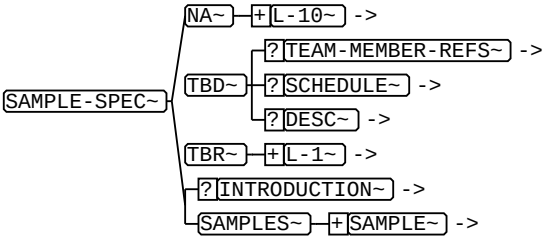


Figure 178: DTD-diagram for SAMPLE-SPEC

Child elements **<na> <tbd> <tbr> <introduction> <samples>**

parent elements **<general-project-data>**

Table 177: Attributes for SAMPLE-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

18.4 SAMPLES

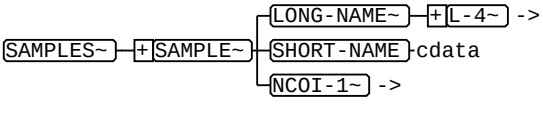


Figure 179: DTD-diagram for SAMPLES

Child elements **<sample>**

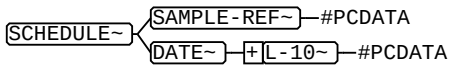
parent elements **<sample-spec>**

Table 178: Attributes for SAMPLES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a samples.

18.5 SCHEDULE



images/SCHEDULE.bmp

Figure 180: DTD-diagram for SCHEDULE

Child elements **<sample-ref> <date>**

parent elements **<tbd>**

Table 179: Attributes for SCHEDULE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

18.6 SHORT-NAME

images/SHORT-NAME.bmp

Figure 181: DTD-diagram for SHORT-NAME

Child elements none

parent elements **<chapter> <company> <def-item> <figure> <fm-action> <fm-action-type> <fm-fault> <fm-fault-type> <fm-form-sheet> <fm-function> <fm-function-type> <fm-structure> <fm-structure-element> <fm-task-set> <fm-task-sets> <fm-team> <fm-tool> <formula> <msrfmea> <nameloc> <prm> <sample> <std> <table> <team-member> <topic-1> <topic-2> <variant-char> <variant-def> <xdoc> <xfile>**

Table 180: Attributes for SHORT-NAME

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Identifier or label of a parameter.

18.7 SPANSPEC

images/SPANSPEC.bmp

Figure 182: DTD-diagram for SPANSPEC

Child elements none

parent elements **<tgroup>**

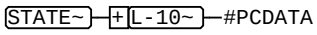
Table 181: Attributes for SPANSPEC

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	default	CENTER LEFT RIGHT CEN-TER JUSTIFY CHAR	
[CHAR]	cdata	implied		
[CHAROFF]	nutoken	implied		
[COLSEP]	number	implied		
[NAMEEND]	nmtoken	required		
[NAMEST]	nmtoken	required		
[ROWSEP]	number	implied		
[S]	cdata	implied		
[SPANNAME]	nmtoken	required		
[T]	cdata	implied		

Description Identifies a horizontal span of columns and associated attributes that can subsequently be referenced by its spanname to provide attributes repeatedly used in the entries or entry tables in several rows of the table group controlled by the group <colsdef>, or within the specific <thead>, <tfoot>, or <tbody> context in which the <spanspec> occurs. <Namest> and <nameend> identify the first and last columns in increasing order that identify the span. The reason <colname> is used rather than <colnum> in identifying <spanspec> is that the names are independent of revisions that may change the number of inserted/deleted columns, as long as namest remains to the left of (has a

smaller colnum than) <nameend>. <spanspec>s set on <thead> or <tfoot> override those on the containing <tgroup> and apply to just the <thead> or<tfoot>. <spanspec>s from the containing <tgroup> apply to <tbody>.

18.8 STATE



images/STATE.bmp

Figure 183: DTD-diagram for STATE

Child elements **<l-10>**

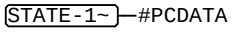
parent elements **<company-revision-info> <lite-revision>**

Table 182: Attributes for STATE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Processing state of a document, i.e draft, released.

18.9 STATE-1



images/STATE-1.bmp

Figure 184: DTD-diagram for STATE-1

Child elements none

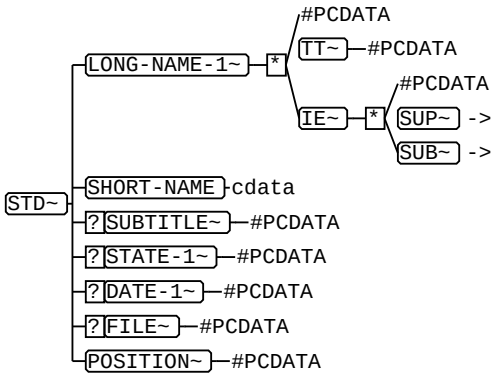
parent elements **<std> <xdoc>**

Table 183: Attributes for STATE-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a state (multilingual).

18.10 STD



images/STD.bmp

Figure 185: DTD-diagram for STD

Child elements **<long-name-1> <short-name> <subtitle> <state-1> <date-1> <file> <position>**

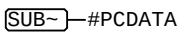
parent elements **<l-1>**

Table 184: Attributes for STD

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	date-1:date	
[F-ID-CLASS]	name	fixed	STD	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Specification of a standard. A <xref> can refer to a standard within a paragraph.

18.11 SUB



images/SUB.bmp

Figure 186: DTD-diagram for SUB

Child elements none

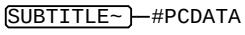
parent elements **<abs> <ie> <l-1> <l-2> <l-3> <max> <min> <tol> <typ>**

Table 185: Attributes for SUB

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Text which appears or is displayed below the normal base line of text.

18.12 SUBTITLE



images/SUBTITLE.bmp

Figure 187: DTD-diagram for SUBTITLE

Child elements none

parent elements **<std>**

Table 186: Attributes for SUBTITLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element defines a subtitle of the standard.

18.13 SUP

images/SUP.bmp

Figure 188: DTD-diagram for SUP

Child elements none

parent elements **<abs> <ie> <l-1> <l-2> <l-3> <max> <min> <tol> <typ>**

Table 187: Attributes for SUP

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Text which appears or is displayed above the normal base line of text.

18.14 SYSTEM-OVERVIEW

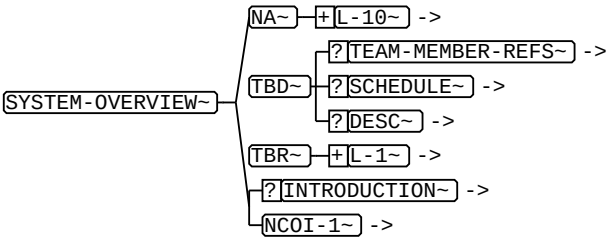


Figure 189: DTD-diagram for SYSTEM-OVERVIEW

Child elements **<na> <tbd> <tbr> <introduction> <ncoi-1>**

parent elements **<general-project-data>**

Table 188: Attributes for SYSTEM-OVERVIEW

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

19 TABLE ... TYP

19.1 TABLE

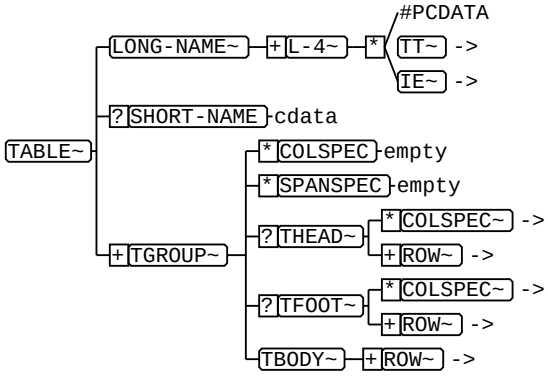


Figure 190: DTD-diagram for TABLE

Child elements **<long-name> <short-name> <tgroup>**

parent elements **<chapter> <fm-form-sheet-presentation> <introduction> <ncoi-1> <topic-1> <topic-2>**

Table 189: Attributes for TABLE

Name	Type	Class	Value	Remark
[COLSEP]	number	implied		
[F-ID-CLASS]	name	fixed	TABLE	
[FLOAT]	nmtkgrp	implied	FLOAT NO-FLOAT	
[FRAME]	nmtkgrp	implied	TOP BOTTOM TOPBOT ALL SIDES NONE	
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[ORIENT]	nmtkgrp	implied	PORT LAND	
[PGWIDE]	number	implied		
[ROWSEP]	number	implied		
[S]	cdata	implied		
[SHORTENTRY]	number	implied		
[T]	cdata	implied		
[TABSTYLE]	nmtoken	implied		
[TOCENTRY]	number	default	1	

Description Identifies a table.

19.2 TBD

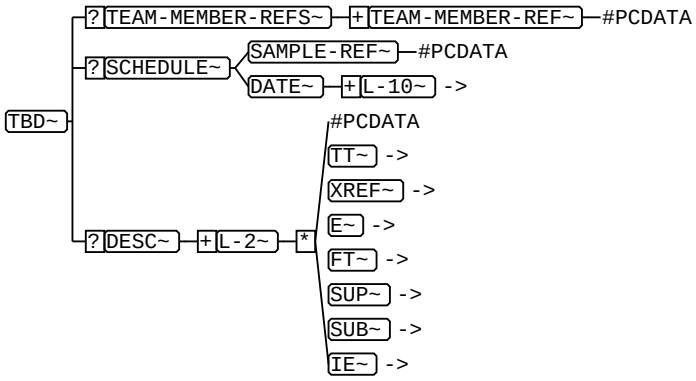


Figure 191: DTD-diagram for TBD

Child elements **<team-member-refs> <schedule> <desc>**

parent elements **<acceptance-cond> <add-spec> <demarcation-other-projects> <dir-hand-over-doc-data> <general-project-data> <integration-capability> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <system-overview> <variant-spec>**

Table 190: Attributes for TBD

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifies that this information (see parent element) will be defined. The context of this element describes the reason why the information isn't defined.

19.3 TBODY

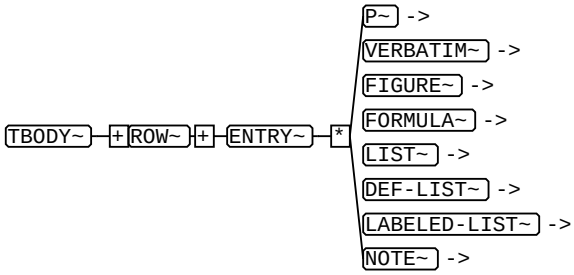


Figure 192: DTD-diagram for TBODY

Child elements **<row>**

parent elements **<tgroup>**

Table 191: Attributes for TBODY

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[VALIGN]	nmtkgrp	default	TOP TOP MIDDLE BOT-TOM	

Description Defines the table body.

19.4 TBR

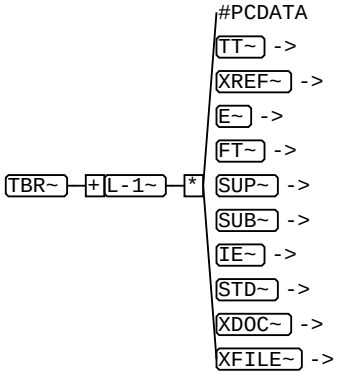


Figure 193: DTD-diagram for TBR

Child elements **<l-1>**

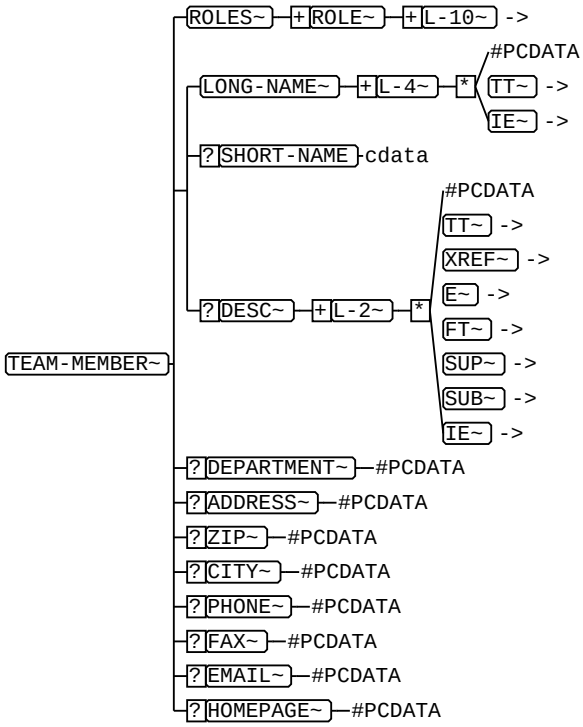
parent elements **<acceptance-cond> <add-spec> <demarcation-other-projects> <dir-hand-over-doc-data> <general-project-data> <integration-capability> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <system-overview> <variant-spec>**

Table 192: Attributes for TBR

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

19.5 TEAM-MEMBER



images/TEAM-MEMBER.bmp

Figure 194: DTD-diagram for TEAM-MEMBER

Child elements **<roles> <long-name> <short-name> <desc> <department> <address> <zip> <city> <phone> <fax> <email> <homepage>**

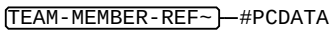
parent elements **<team-members>**

Table 193: Attributes for TEAM-MEMBER

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	TEAM-MEMBER	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a team member.

19.6 TEAM-MEMBER-REF



images/TEAM-MEMBER-REF.bmp

Figure 195: DTD-diagram for TEAM-MEMBER-REF

Child elements none

parent elements **<doc-revision> <fm-action> <fm-structure-owner> <lite-revision> <team-member-refs>**

Table 194: Attributes for TEAM-MEMBER-REF

Name	Type	Class	Value	Remark
[HYNAMES]	names	fixed	LINKEND TEAM-MEMBER	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		
[TEAM-MEMBER]	idref	required		

Description Reference to an team member.

19.7 TEAM-MEMBER-REFS

images/TEAM-MEMBER-REFS.bmp

Figure 196: DTD-diagram for TEAM-MEMBER-REFS

Child elements **<team-member-ref>**

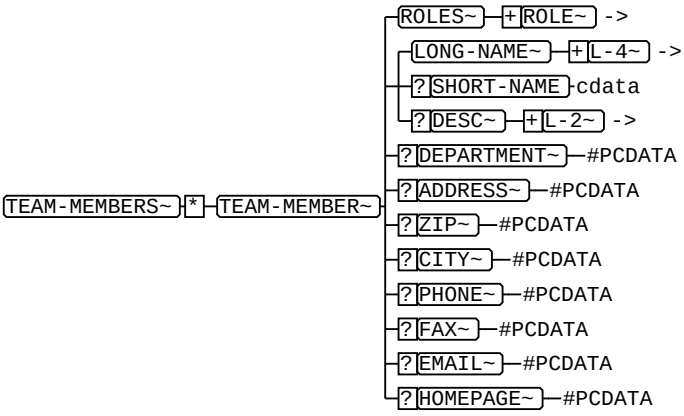
parent elements **<fm-team> <tbd>**

Table 195: Attributes for TEAM-MEMBER-REFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description List of references to team member.

19.8 TEAM-MEMBERS



images/TEAM-MEMBERS.bmp

Figure 197: DTD-diagram for TEAM-MEMBERS

Child elements **<team-member>**

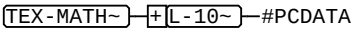
parent elements **<company>**

Table 196: Attributes for TEAM-MEMBERS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element groups some team-member of a company for the actual project.

19.9 TEX-MATH



images/TEX-MATH.bmp

Figure 198: DTD-diagram for TEX-MATH

Child elements **<l-10>**

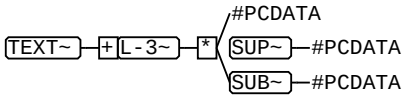
parent elements **<formula>**

Table 197: Attributes for TEX-MATH

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Describes a TeX (LaTeX) formular

19.10 TEXT



images/TEXT.bmp

Figure 199: DTD-diagram for TEXT

Child elements **<l-3>**

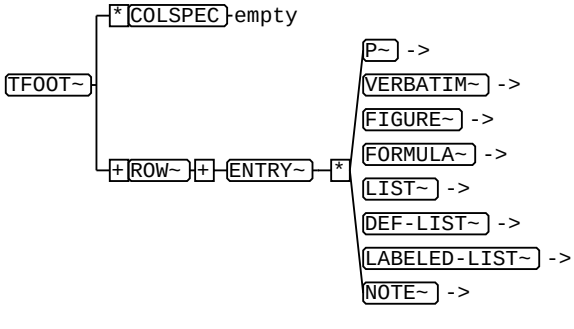
parent elements **<prm-char>**

Table 198: Attributes for TEXT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of text.

19.11 TFOOT



images/TFOOT.bmp

Figure 200: DTD-diagram for TFOOT

Child elements **<colspec> <row>**

parent elements **<tgroup>**

Table 199: Attributes for TFOOT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[VALIGN]	nmtkgrp	default	TOP TOP MIDDLE BOTTOM	

Description Identifies the footer information in a table displayed after the <tbody> and also at the bottom of any <tbody> rows before a physical break.

19.12 TGROUP

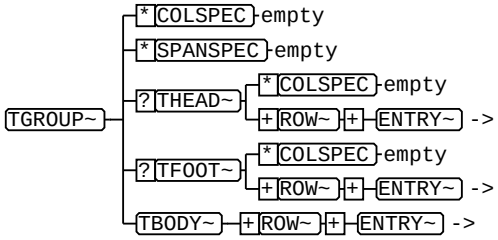


Figure 201: DTD-diagram for TGROUP

Child elements **<colspec> <spanspec> <thead> <tfoot> <tbody>**

parent elements **<table>**

Table 200: Attributes for TGROUP

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	default	LEFT LEFT RIGHT CENTER JUSTIFY CHAR	
[CHAR]	cdata	default		
[CHAROFF]	nutoken	default	50	
[COLS]	number	required		
[COLSEP]	number	implied		
[ROWSEP]	number	implied		
[S]	cdata	implied		
[T]	cdata	implied		
[TGROUPSTYLE]	nmtoken	implied		

Description Each <tgroup> effectively identifies a new partition of a table. If a new <colspec> is provided, it replaces a previous one. If both <colspec> and <spanspec> are new, <spanspec> should refer to columns in the most recent <colspec>.

19.13 THEAD

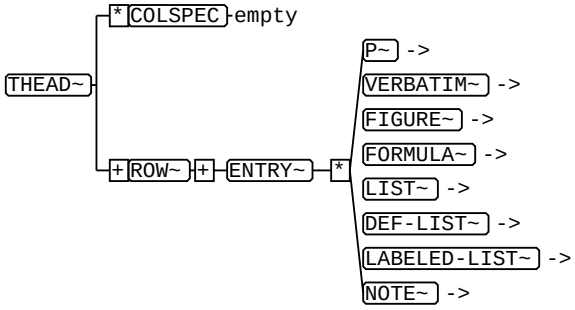


Figure 202: DTD-diagram for THEAD

Child elements **<colspec> <row>**

parent elements **<tgroup>**

Table 201: Attributes for THEAD

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[VALIGN]	nmtkgrp	default	BOTTOM TOP MIDDLE BOTTOM	

Description Identifies the heading information in a table, displayed at the top of the table and again at the top of any continuation after a physical break between <rows> in <tbody>.

19.14 TOL

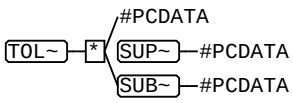


Figure 203: DTD-diagram for TOL

Child elements **<sup> <sub>**

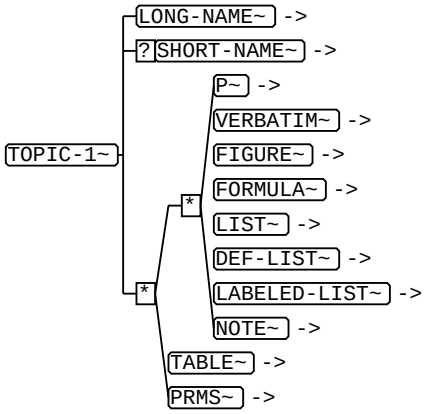
parent elements **<prm-char>**

Table 202: Attributes for TOL

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a tolerance of the defined <value>.

19.15 TOPIC-1



images/TOPIC-1.bmp

Figure 204: DTD-diagram for TOPIC-1

Child elements **<long-name> <short-name> <p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table> <prms>**

parent elements **<chapter> <ncoi-1>**

Table 203: Attributes for TOPIC-1

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	TOPIC	
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description This element groups tables, parameter groups, figures, lists and paragraphs. It has the same function as a sub-chapter or sub-section.

19.16 TOPIC-2

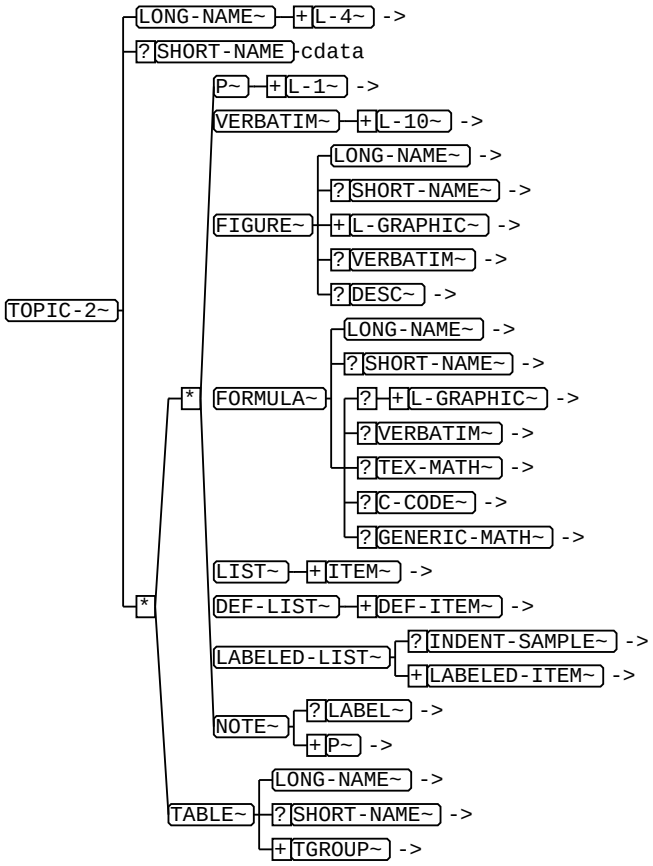


Figure 205: DTD-diagram for TOPIC-2

Child elements **<long-name> <short-name> <p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table>**

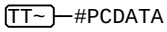
parent elements **<fm-form-sheet-presentation> <introduction>**

Table 204: Attributes for TOPIC-2

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	TOPIC	
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description This element groups tables, figures, lists and paragraphs. It has the same function as a sub-chapter or sub-section.

19.17 TT



images/TT.bmp

Figure 206: DTD-diagram for TT

Child elements none

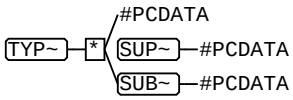
parent elements **<l-1> <l-2> <l-4> <long-name-1>**

Table 205: Attributes for TT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		
[TYPE]	nmtkgrp	required	SGMLTAG SGML-ATTRIBUTE TOOL PRODUCT VARI-ABLE STATE PRM MATERI-AL CONTROL-ELEMENT CODE ORGANISATION OTHER	
[USER-DEFINED-TYPE]	cdata	implied		

Description technical term

19.18 TYP



images/TYP.bmp

Figure 207: DTD-diagram for TYP

Child elements **<sup> <sub>**

parent elements **<prm-char>**

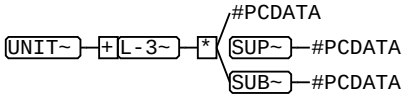
Table 206: Attributes for TYP

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Defines a typical value.

20 UNIT ... USER-COVER-SHEETS

20.1 UNIT



images/UNIT.bmp

Figure 208: DTD-diagram for UNIT

Child elements **<l-3>**

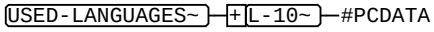
parent elements **<prm-char>**

Table 207: Attributes for UNIT

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of a unit. Please use the standardized SI symbols.

20.2 USED-LANGUAGES



images/USED-LANGUAGES.bmp

Figure 209: DTD-diagram for USED-LANGUAGES

Child elements **<l-10>**

parent elements **<admin-data>**

Table 208: Attributes for USED-LANGUAGES

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Null

20.3 USER-COVER-SHEET

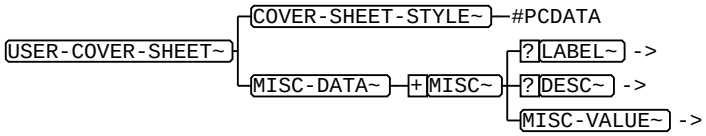


Figure 210: DTD-diagram for USER-COVER-SHEET

Child elements **<cover-sheet-style> <misc-data>**

parent elements **<user-cover-sheets>**

Table 209: Attributes for USER-COVER-SHEET

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

20.4 USER-COVER-SHEETS

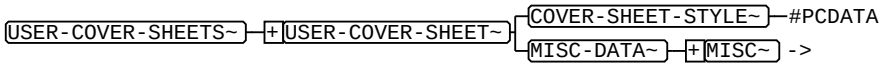


Figure 211: DTD-diagram for USER-COVER-SHEETS

Child elements **<user-cover-sheet>**

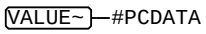
parent elements **<fm-form-sheet>**

Table 210: Attributes for USER-COVER-SHEETS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

21 VALUE ... VISIBLE

21.1 VALUE



images/VALUE.bmp

Figure 212: DTD-diagram for VALUE

Child elements none

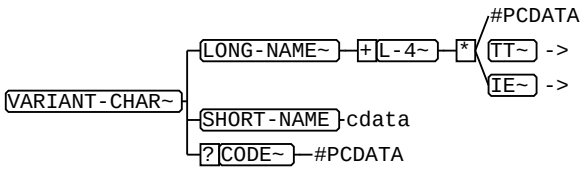
parent elements **<variant-char-value>**

Table 211: Attributes for VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifies the value of a variant characteristic.

21.2 VARIANT-CHAR



images/VARIANT-CHAR.bmp

Figure 213: DTD-diagram for VARIANT-CHAR

Child elements **<long-name> <short-name> <code>**

parent elements **<variant-chars>**

Table 212: Attributes for VARIANT-CHAR

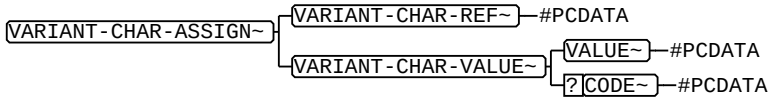
Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	VARIANT-CHAR	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Table 212 (Cont.): Attributes for VARIANT-CHAR

Name	Type	Class	Value	Remark
[TYPE]	nmtkgrp	required	NEW-PART-NUMBER NO-NEW-PART-NUMBER	

Description Definition of a variant characteristic.

21.3 VARIANT-CHAR-ASSIGN



images/VARIANT-CHAR-ASSIGN.bmp

Figure 214: DTD-diagram for VARIANT-CHAR-ASSIGN

Child elements **<variant-char-ref> <variant-char-value>**

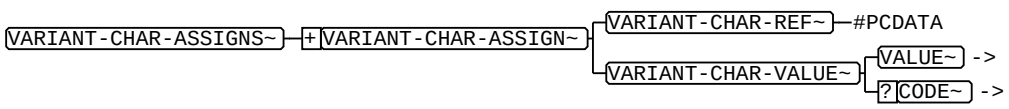
parent elements **<variant-char-assigns>**

Table 213: Attributes for VARIANT-CHAR-ASSIGN

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Assigns a variant characteristic.

21.4 VARIANT-CHAR-ASSIGNS



images/VARIANT-CHAR-ASSIGNS.bmp

Figure 215: DTD-diagram for VARIANT-CHAR-ASSIGNS

Child elements **<variant-char-assign>**

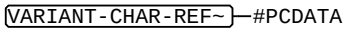
parent elements **<variant-def>**

Table 214: Attributes for VARIANT-CHAR-ASSIGNS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Assigns variant characteristics.

21.5 VARIANT-CHAR-REF



images/VARIANT-CHAR-REF.bmp

Figure 216: DTD-diagram for VARIANT-CHAR-REF

Child elements none

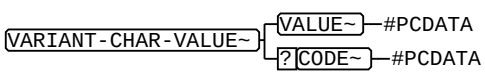
parent elements **<variant-char-assign>**

Table 215: Attributes for VARIANT-CHAR-REF

Name	Type	Class	Value	Remark
[HYNAMES]	names	fixed	LINKEND VARIANT-CHAR	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[T]	cdata	implied		
[VARIANT-CHAR]	idref	required		

Description Reference to a variant chararteristic.

21.6 VARIANT-CHAR-VALUE



images/VARIANT-CHAR-VALUE.bmp

Figure 217: DTD-diagram for VARIANT-CHAR-VALUE

Child elements **<value> <code>**

parent elements **<variant-char-assign>**

Table 216: Attributes for VARIANT-CHAR-VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains the value of a variant charateristic.

21.7 VARIANT-CHARS

images\VARIANT-CHARS.bmp

Figure 218: DTD-diagram for VARIANT-CHARS

Child elements **<variant-char>**

parent elements **<variant-spec>**

Table 217: Attributes for VARIANT-CHARS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Definition of variant characteristics.

21.8 VARIANT-DEF

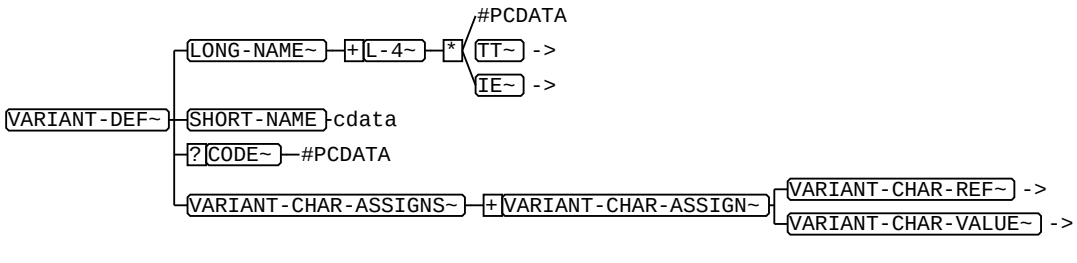


Figure 219: DTD-diagram for VARIANT-DEF

Child elements **<long-name> <short-name> <code> <variant-char-assigns>**

parent elements **<variant-defs>**

Table 218: Attributes for VARIANT-DEF

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	VARIANT-DEF	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description General definition of a variant.

21.9 VARIANT-DEFS

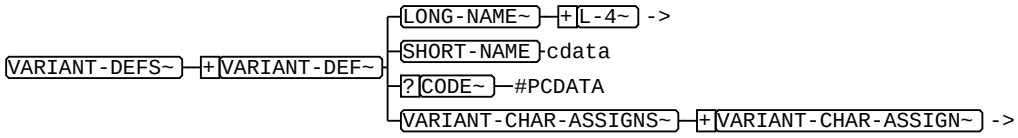


Figure 220: DTD-diagram for VARIANT-DEFS

Child elements **<variant-def>**

parent elements **<variant-spec>**

Table 219: Attributes for VARIANT-DEFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description General definitions of a variant.

21.10 VARIANT-SPEC

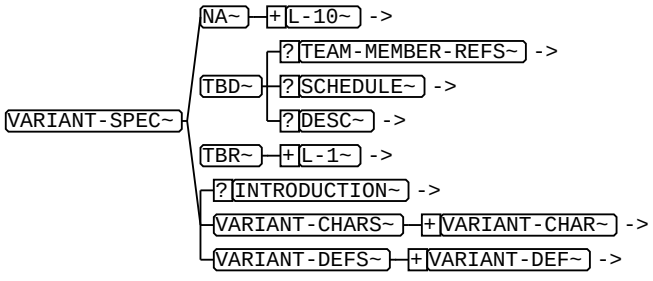


Figure 221: DTD-diagram for VARIANT-SPEC

Child elements **<na> <tbd> <tbr> <introduction> <variant-chars> <variant-defs>**

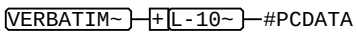
parent elements **<general-project-data>**

Table 220: Attributes for VARIANT-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description Specification of a variant.

21.11 VERBATIM



images/VERBATIM.bmp

Figure 222: DTD-diagram for VERBATIM

Child elements **<l-10>**

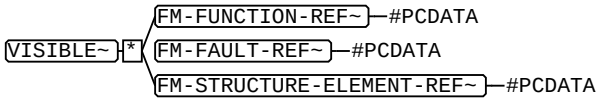
parent elements **<chapter> <entry> <figure> <fm-form-sheet-presentation> <formula> <introduction> <item> <labeled-item> <ncoi-1> <remark> <topic-1> <topic-2>**

Table 221: Attributes for VERBATIM

Name	Type	Class	Value	Remark
[ALLOW-BREAK]	number	default	1	
[FLOAT]	nmtkgrp	implied	FLOAT NO-FLOAT	
[HELP-ENTRY]	cdata	implied		
[S]	cdata	implied		
[T]	cdata	implied		

Description Used to indicate if the text is to be picked up and laid down as it is. Typically, it implies the usage of a monospace font and the designated point size. All record ends are retained. The use of tabs in verbatim text may cause unexpected results and should therefore be avoided.

21.12 VISIBLE



images/VISIBLE.bmp

Figure 223: DTD-diagram for VISIBLE

Child elements **<fm-function-ref> <fm-fault-ref> <fm-structure-element-ref>**

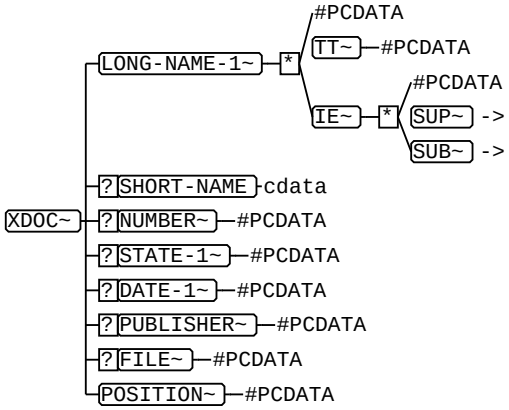
parent elements **<fm-interface>**

Table 222: Attributes for VISIBLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

22 XDOC ... XREF

22.1 XDOC



images/XDOC.bmp

Figure 224: DTD-diagram for XDOC

Child elements **<long-name-1> <short-name> <number> <state-1> <date-1> <publisher> <file> <position>**

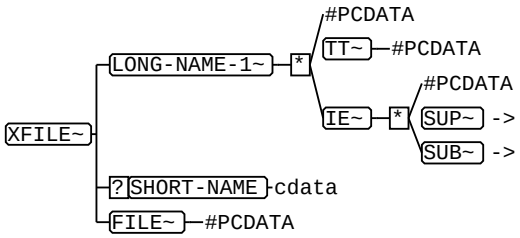
parent elements **<l-1>**

Table 223: Attributes for XDOC

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	date-1:date	
[F-ID-CLASS]	name	fixed	XDOC	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifiy an external document which is not accessed by the SGML-System. The content of this external document is 'not included' in the document instance or presented in a report.

22.2 XFILE



images/XFILE.bmp

Figure 225: DTD-diagram for XFILE

Child elements **<long-name-1> <short-name> <file>**

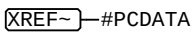
parent elements **<l-1>**

Table 224: Attributes for XFILE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	XFILE	
[ID]	id	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Specifiy an external file which is not accessed by the SGML-System. The content of this external file is 'not included' in the document instance or presented in a report.

22.3 XREF



images/XREF.bmp

Figure 226: DTD-diagram for XREF

Child elements none

parent elements **<l-1> <l-2>**

Table 225: Attributes for XREF

Name	Type	Class	Value	Remark
[EXT-ID-CLASS]	cdata	implied		
[HYNAMES]	names	fixed	LINKEND ID-REF	
[HYTIME]	name	fixed	CLINK	

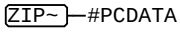
Table 225 (Cont.): Attributes for XREF

Name	Type	Class	Value	Remark
[ID-CLASS]	nmtkgrp	required	CHAPTER COMPANY DEF-ITEM FIGURE FM-ACTION FM-ACTION-TYPE FM-FAULT FM-FAULT-TYPE FM-FORM-SHEET FM-FUNCTION FM-FUNCTION-TYPE FM-STRUCTURE FM-STRUCTURE-ELEMENT FM-TASK-SET FM-TASK-SETS FM-TEAM FM-TOOL FORMULA PRM SAMPLE STD TABLE TEAM-MEMBER TOPIC VARIANT-CHAR VARIANT-DEF X-DOC XFILE EXTERNAL	
[ID-REF]	idref	required		
[S]	cdata	implied		
[T]	cdata	implied		

Description Reference inside a paragraph to objects (elements with identifier) in the document. The type attribute classifies this reference into following classes: - figures - tables - external documents - parameters - standards - other For the output, the processing system will use this classes for difference presentation.

23 ZIP ... ZIP

23.1 ZIP



images/ZIP.bmp

Figure 227: DTD-diagram for ZIP

Child elements none

parent elements **<team-member>**

Table 226: Attributes for ZIP

Name	Type	Class	Value	Remark
[S]	cdata	implied		
[T]	cdata	implied		

Description This element contains the ZIP of the used address.

Documentadministration

Overview of Changes

Total	Documentpart	Nr.	Change	Reason	Related to
15.6.1999		5	initial release		Content
30.7.1999		4	Element description included		Content
8.9.1999		3	New DTD Version		Content
1.10.1999		2	New DTD Version		Content
2002-02-07		1	Create index, technical terms and reference. Convert to MSRREP V210 XML.		Content

Versions Overview

Document Part	Date	Editor			
		Company	Version	State	Remarks
From page 23	2002-02-07	Roman Reimer			
	Changes 1	MEDOC	5	RD	
	1.10.1999	Dipl.-Ing. Bernhard Weichel			
	Changes 2	MEDOC	4	rd	
	8.9.1999	Dipl.-Ing. Bernhard Weichel			
	Changes 3	MEDOC	3	rd	
	30.7.1999	Dipl.-Ing. Bernhard Weichel			
	Changes 4	MEDOC	2	rd	
	15.6.1999	Dipl.-Ing. Bernhard Weichel			
	Changes 5	MEDOC	1	rd	

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English

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Xref classes are shown

Specifying 'See' for XRefs
'See' is to be inserted for xrefs

Treatment of filenames in graphics (—figname)
Filenames for graphics are shown

Treatment of width and height attributes of graphics (—figdimension)
Width and height of graphics is not considered

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No title graphic specified

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Local administrative data is output

Filename
C:\Docs\MEDOC\MSRFMEA\docs\en\eadoc\msrfmea-eadoc_V210.xml

MetaMorphosis-Version
3.2

Form Version
2.0 (MetaPage)

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