MSR Engineering Documentation (MEDOC)
Structure Principles of MSRNET.DTD

Scope: Automotive Networks

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Abstract

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

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1 How to read this document

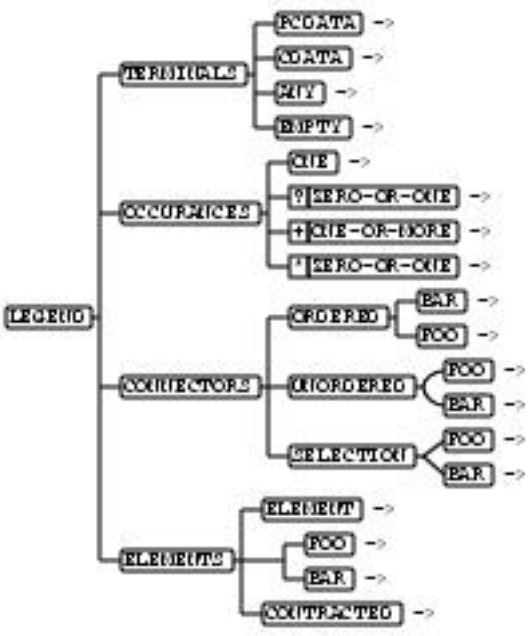
The following conventions apply

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. 29).



legend.bmp

Figure 1: convention in DTD diagrams

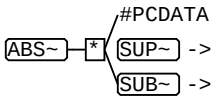
The meaning of the symbols is:

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		

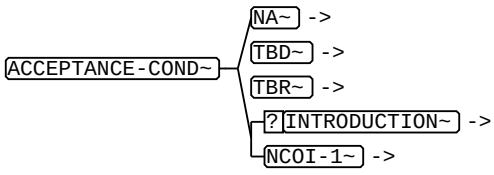
Description Absolute value for parameter characteristics. See parameter model (**<sw-prm>**).

Example

```
<prm>
   <long-name>long designation</long-name>
   <short-name>short designation</short-name>
   <prm-char>
      <abs>10</abs>
      <tol>5<tol>
      <unit>°C</unit>
   </prm-char>
</prm>
<prm>
   <long-name>long designation</long-name>
   <short-name>short designation</short-name>
   <prm-char>
      <min>0</min>
      <typ>5<typ>
      <max>0</max>
      <unit>°C</unit>
   </prm-char>
</prm>
```

Description This element defines an absolute value which is adjusted or measured.

1.2 ACCEPTANCE-COND



images/ACCEPTANCE-COND.bmp

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		

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

1.3 ADD-INFO

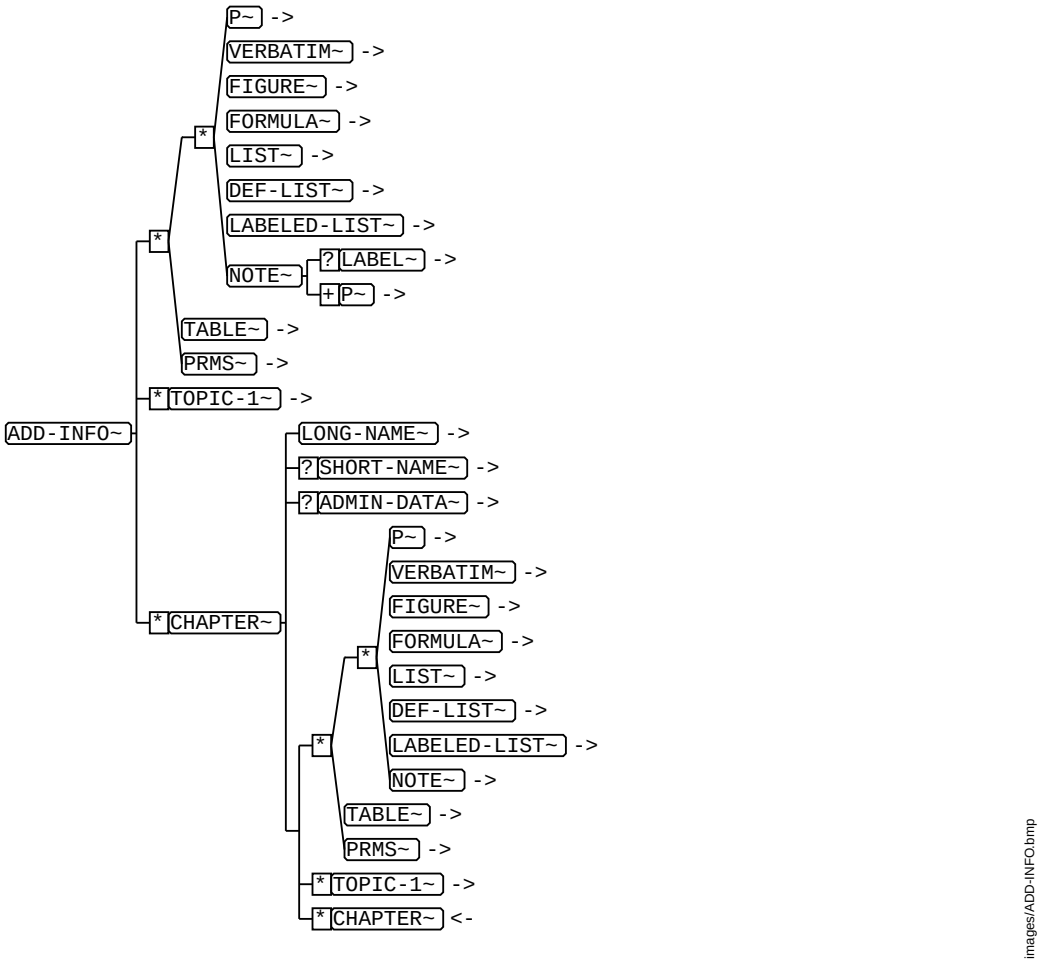


Figure 4: DTD-diagram for ADD-INFO

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

parent elements **<interface-circuit> <net-interface-spec> <net-message> <net-signal-spec> <net-signal-spec-variant> <transmission-spec>**

Table 3: Attributes for ADD-INFO

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Additional information (which is not covered by the existing structure) can be given in this element. In opposite to **<add-spec>**, **<add-info>** complements an existing structure, whild **<add-spec>** is used where no structure exists at all.

Example

```
<sw-function-variant>
      ...
   <add-info>
      <prms>
         <prm>
            <long-name>program-language</long-name>
            <short-name>program-language</short-name>
            <prm-char><text>ASS</text>
            </prm-char>
         </prm>
      </prms>
   </add-info>
</sw-function-variant>
```

Description This element allows the author to make additional informations in form of parameter models for tests.

1.4 ADD-SPEC

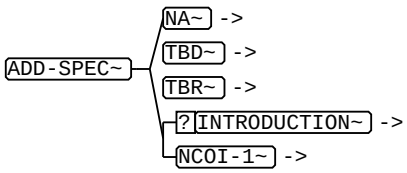


Figure 5: DTD-diagram for ADD-SPEC

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

parent elements **<general-project-data> <msrnet> <net-architecture> <net-oper-spec> <net-topology-spec>**

Table 4: Attributes for ADD-SPEC

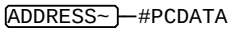
Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

Description This chapter allows the author to define additional specifications.

1.5 ADDRESS



images/ADDRESS.bmp

Figure 6: DTD-diagram for ADDRESS

Child elements none

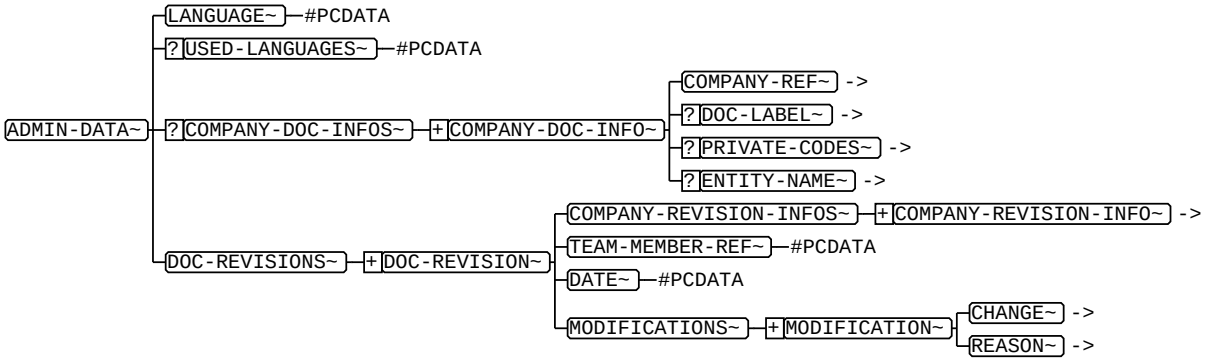
parent elements **<team-member>**

Table 5: Attributes for ADDRESS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of the address of a team member.

1.6 ADMIN-DATA



images/ADMIN-DATA.bmp

Figure 7: DTD-diagram for ADMIN-DATA

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

parent elements **<chapter> <connection-comp-1> <connection-comp-spec-1> <general-net-spec> <general-project-data> <msrnet> <net-architecture> <net-interface-spec> <net-message-spec> <net-oper-spec> <net-signal-spec> <net-topology-spec> <sw-compu-method> <sw-compu-methods> <sw-unit> <sw-units>**

Table 6: Attributes for ADMIN-DATA

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

Example

```
<admin-data>
   <language>de</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>
```

Description Definition of the administrative data of this document fragment.

2 BAUDRATE ... BYTE-ORDER

2.1 BAUDRATE

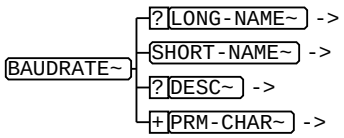


Figure 8: DTD-diagram for BAUDRATE

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

parent elements **<net-interface-prms>**

Table 7: Attributes for BAUDRATE

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

2.2 BITSIZE

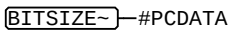


Figure 9: DTD-diagram for BITSIZE

Child elements none

parent elements **<multiplexor> <net-signal-spec-variant>**

Table 8: Attributes for BITSIZE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

2.3 BTL-CYCLES

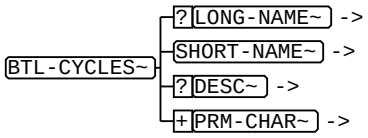


Figure 10: DTD-diagram for BTL-CYCLES

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

parent elements **<net-interface-prms>**

Table 9: Attributes for BTL-CYCLES

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

2.4 BYTE-ORDER

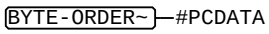


Figure 11: DTD-diagram for BYTE-ORDER

Child elements none

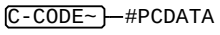
parent elements **<net-message>**

Table 10: Attributes for BYTE-ORDER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

3 C-CODE ... COMPANY-REVISION-INFOS

3.1 C-CODE



images/C-CODE.bmp

Figure 12: DTD-diagram for C-CODE

Child elements none

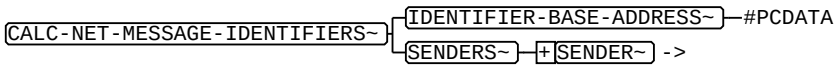
parent elements **<formula>**

Table 11: Attributes for C-CODE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

3.2 CALC-NET-MESSAGE-IDENTIFIERS



images/CALC-NET-MESSAGE-IDENTIFIERS.bmp

Figure 13: DTD-diagram for CALC-NET-MESSAGE-IDENTIFIERS

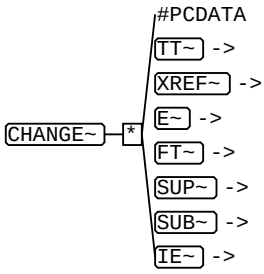
Child elements **<identifier-base-address> <senders>**

parent elements **<net-message>**

Table 12: Attributes for CALC-NET-MESSAGE-IDENTIFIERS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

3.3 CHANGE



images/CHANGE.bmp

Figure 14: DTD-diagram for CHANGE

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

parent elements **<modification>**

Table 13: Attributes for CHANGE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description More or less detailled description of the performed changes can be given here.

Example
```
<modification>
   <change>element description inserted</change>
   <reason>for better understanding</reason>
</modification>
```

Description Describes the change of a document

3.4 CHAPTER

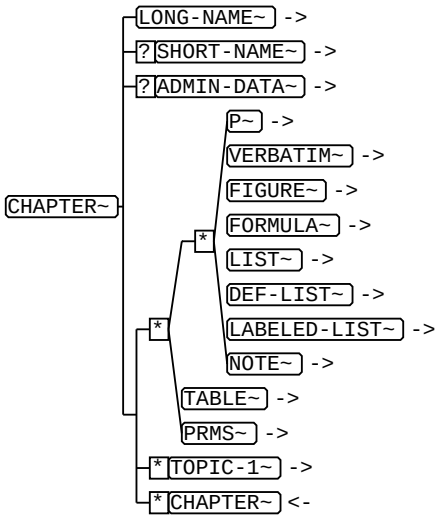


Figure 15: DTD-diagram for CHAPTER

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 **<add-info> <chapter> <driver-concept> <ncoi-1> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <segmentation-desc>**

Table 14: 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		

Description **<chapter>** is used to put a presentation structure on prose descriptions. Chapters can be structured hierachically.

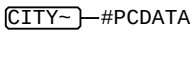
Example

```
<chapter id="ch1" help-entry="chapter">
   <long-name>Chapter1</long-name>
   <short-name></short-name>
   <p>This is the text in the chapter.</p>
   <figure id="fig1" help-entry="synopic diagram"><
      long-name>principal circuit diagram</long-name>
          <short-name>psb</short-name>
          <graphic filename="bild.bmp" notation="eps"></graphic>
   </figure>
   <chapter id="ch11">
      <long-name>Chapter 1.1</long-name>
          <short-name></short-name>
```

```
            <p></p>
            <p></p>
         </chapter>
      </chapter>
```

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

3.5 CITY



images/CITY.bmp

Figure 16: DTD-diagram for CITY

Child elements none

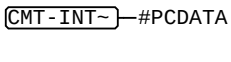
parent elements **<team-member>**

Table 15: Attributes for CITY

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of the city of the address.

3.6 CMT-INT



images/CMT-INT.bmp

Figure 17: DTD-diagram for CMT-INT

Child elements none

parent elements **<sw-compu-method-text-pair> <sw-compu-method-value-pair>**

Table 16: Attributes for CMT-INT

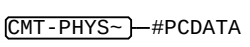
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Internal value for a conversion formula

Example

```
<sw-compu-method-text>
   <sw-compu-method-text-pair>
      <cmt-int>0</cmt-int>
      <cmt-text>Heck</cmt-text>
   </cmt-compu-method-text-pair>
</sw-compu-method-text>
```

3.7 CMT-PHYS



images/CMT-PHYS.bmp

Figure 18: DTD-diagram for CMT-PHYS

Child elements none

parent elements **<sw-compu-method-value-pair>**

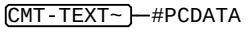
Table 17: Attributes for CMT-PHYS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Physical value for a conversion formula defined as conversion table.

Example
```
<sw-compu-method-table>
   <sw-compu-method-value-pair>
      <cmt-int>0</cmt-int>
      <cmt-phys>11</cmt-phys>
   </cmt-compu-method-value-pair>
</sw-compu-method-table
```

3.8 CMT-TEXT



images/CMT-TEXT.bmp

Figure 19: DTD-diagram for CMT-TEXT

Child elements none

parent elements **<sw-compu-method-text-pair>**

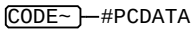
Table 18: Attributes for CMT-TEXT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Value in text form for a conversion formula.

Example
```
<sw-compu-method-text>
   <sw-compu-method-text-pair>
      <cmt-int>0</cmt-int>
      <cmt-text>Heck</cmt-text>
   </cmt-compu-method-text-pair>
</sw-compu-method-text>
```

3.9 CODE



images/CODE.bmp

Figure 20: DTD-diagram for CODE

Child elements none

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

Table 19: Attributes for CODE

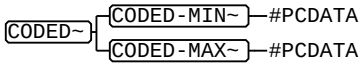
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description The definition of variants end up in code names for variants resp. for variant characteristics resp. for values of variant characteristics. **<code>** takes these names. This code may be a number as well as a name.

Example
```
<code>007</code>
```

Description This element contains the definition of the code.

3.10 CODED



images/CODED.bmp

Figure 21: DTD-diagram for CODED

Child elements **<coded-min> <coded-max>**

parent elements **<sw-limits> <sw-limits>**

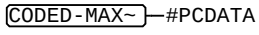
Table 20: Attributes for CODED

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Coded/internal values for limits.

Example
```
<sw-limits>
   <coded>
      <coded-min>0</coded-min>
      <coded-max>255</coded-max>
   </coded>
   <phys>
      <phys-min>0</phys-min>
      <phys-max>90</phys-max></phys>
</sw-limits>
```

3.11 CODED-MAX



images/CODED-MAX.bmp

Figure 22: DTD-diagram for CODED-MAX

Child elements none

parent elements **<coded>**

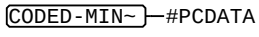
Table 21: Attributes for CODED-MAX

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Maximum coded limiting value

Example `<coded-max>255</coded-max>`

3.12 CODED-MIN



images/CODED-MIN.bmp

Figure 23: DTD-diagram for CODED-MIN

Child elements none

parent elements **<coded>**

Table 22: Attributes for CODED-MIN

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Minimum coded limiting value

Example `<coded-min>0</coded-min>`

3.13 COLSPEC

images/COLSPEC.bmp

Figure 24: DTD-diagram for COLSPEC

Child elements none

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

Table 23: Attributes for COLSPEC

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	implied	LEFT RIGHT CENTER 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		

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>.

3.14 COMPANIES

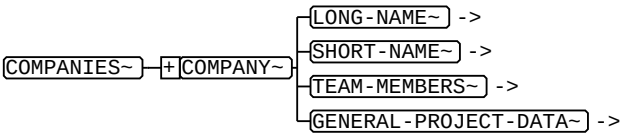


Figure 25: DTD-diagram for COMPANIES

Child elements **<company>**

parent elements **<project>**

Table 24: Attributes for COMPANIES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Gets information about all companies participating in the project in question.

Example
```
<companies>
   <company role=”supplier” id=”bosch”></company>
   <company role=”manufacturer” id=”vw”></company>
</companies>
```

Description Definitions of some companies.

3.15 COMPANY

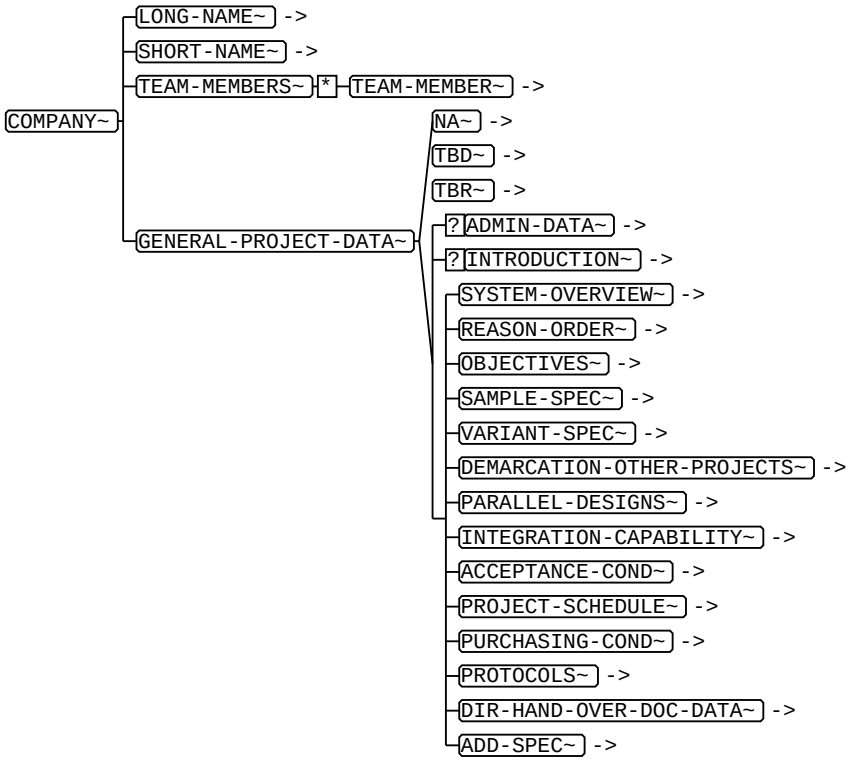


Figure 26: DTD-diagram for COMPANY

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

parent elements **<companies>**

Table 25: Attributes for COMPANY

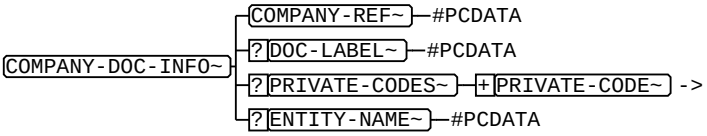
Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	long-name:selection	
[F-ID-CLASS]	name	fixed	COMPANY	
[F-NAMESPACE]	names	fixed	SAMPLE TEAM-MEMBER VARIANT-DEF VARIANT-CHAR	
[ID]	id	required		
[ROLE]	nmtkgrp	required	MANUFACTURER SUPPLIER	
[S]	cdata	implied		

Description Company-spefic details for a company participating in the project

Example
```
<company role=”supplier” id=”rb”>
   <long-name>Robert Bosch GmbH</long-name>
   <short-name>rb</short-name>
   <team-members>
      <team-member id=”ge”></team-member>
   </team-members><
   general-project-data></general-project-data>
</company>
```

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

3.16 COMPANY-DOC-INFO



images/COMPANY-DOC-INFO.bmp

Figure 27: DTD-diagram for COMPANY-DOC-INFO

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

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

Table 26: Attributes for COMPANY-DOC-INFO

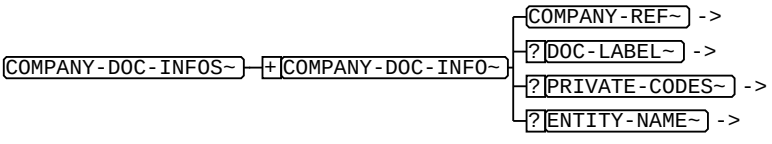
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element takes company specific information about a document resp. a subpart of a document.

Example
```
<company-doc-info>
   <company-ref company=”id0815”>msr</company-ref>
   <doc-label>Programmstand</doc-label>
   <private-codes>1.1</private-codes>
   <entity-name>P11.sgm</entity-name>
</company-doc-info>
```

Description Company specific document informations.

3.17 COMPANY-DOC-INFOS



images/COMPANY-DOC-INFOS.bmp

Figure 28: DTD-diagram for COMPANY-DOC-INFOS

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

parent elements **<admin-data>**

Table 27: Attributes for COMPANY-DOC-INFOS

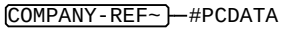
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Company-specific information for administrative data

Example

Description Company specific document information.

3.18 COMPANY-REF



images/COMPANY-REF.bmp

Figure 29: DTD-diagram for COMPANY-REF

Child elements none

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

Table 28: 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		

Description Reference to a company. The semantic of the reference is given by the context.

Example
```
<company-revision-info>
   <company-ref company="id0815">msr</company-ref>
   ...
</company-revision-info>
```

Description Reference to a company (supplier).

3.19 COMPANY-REVISION-INFO

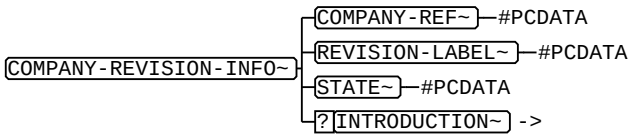


Figure 30: DTD-diagram for COMPANY-REVISION-INFO

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

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

Table 29: Attributes for COMPANY-REVISION-INFO

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

Description Company-specific information concerning a certain revision of the document.

Example
```
<company-revision-info>
   <company-ref company="rb">rb</company-ref>
   <revision-label>15.4</revision-label>
   <state>freigegeben</state>
</company-revision-info>
```

Description Company specific document revision.

3.20 COMPANY-REVISION-INFOS

Figure 31: DTD-diagram for COMPANY-REVISION-INFOS

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

parent elements **<doc-revision>**

Table 30: Attributes for COMPANY-REVISION-INFOS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

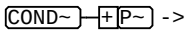
Description Collection of all company specific revision information on an entity or a fragment.

Example

Description Company specific document revisions.

4 COND ... CYCLE-TIME

4.1 COND



images/COND.bmp

Figure 32: DTD-diagram for COND

Child elements **<p>**

parent elements **<prm-char>**

Table 31: Attributes for COND

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Condition for parameters. This condition is given as informal description.

Example
```
<prm>
   <long-name>Temperatur</long-name>
   <short-name>temp/short-name>
   <prm-char>
      <cond><p>valid if  x <  20</p></cond>
      <abs>10</abs>
      <tol>5<tol>
      <unit>°C</unit>
   </prm-char>
</prm>
```

Description Defines specific conditions under this parameter characteristic is allowed.

4.2 CONNECTION-COMP-1

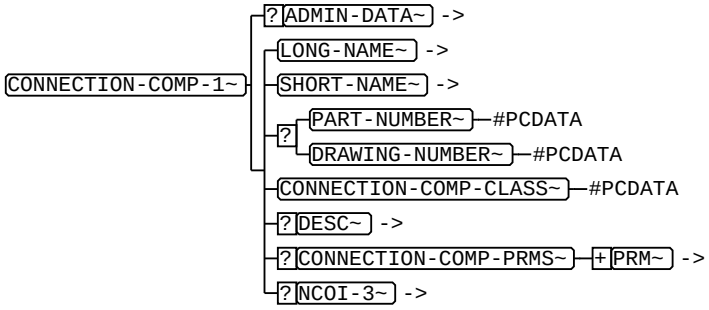


Figure 33: DTD-diagram for CONNECTION-COMP-1

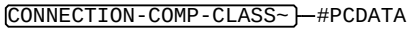
Child elements **<admin-data> <long-name> <short-name> <part-number> <drawing-number> <connection-comp-class> <desc> <connection-comp-prms> <ncoi-3>**

parent elements **<connection-comps-1>**

Table 32: Attributes for CONNECTION-COMP-1

Name	Type	Class	Value	Remark
[F-CHILD-TYPE]	cdata	fixed	drawing-number:drawing-number#part-number:part-number#connection-comp-class:selection	
[F-ID-CLASS]	name	fixed	CONNECTION-COMP	
[ID]	id	required		
[S]	cdata	implied		

4.3 CONNECTION-COMP-CLASS



images/CONNECTION-COMP-CLASS.bmp

Figure 34: DTD-diagram for CONNECTION-COMP-CLASS

Child elements none

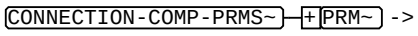
parent elements **<connection-comp-1>**

Table 33: Attributes for CONNECTION-COMP-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Spcification of the class of a connection component.

4.4 CONNECTION-COMP-PRMS



images/CONNECTION-COMP-PRMS.bmp

Figure 35: DTD-diagram for CONNECTION-COMP-PRMS

Child elements **<prm>**

parent elements **<connection-comp-1>**

Table 34: Attributes for CONNECTION-COMP-PRMS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element describes the parameter of a connection component.

4.5 CONNECTION-COMP-REF

images/CONNECTION-COMP-REF.bmp

Figure 36: DTD-diagram for CONNECTION-COMP-REF

Child elements none

parent elements ** <segmentation-spec>**

Table 35: Attributes for CONNECTION-COMP-REF

Name	Type	Class	Value	Remark
[CONNECTION-COMP]	idref	required		
[HYNAMES]	names	fixed	LINKEND CONNECTION-COMP	
[HYTIME]	name	fixed	CLINK	

Table 35 (Cont.): Attributes for CONNECTION-COMP-REF

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Reference to a connection component.

4.6 CONNECTION-COMP-SPEC-1

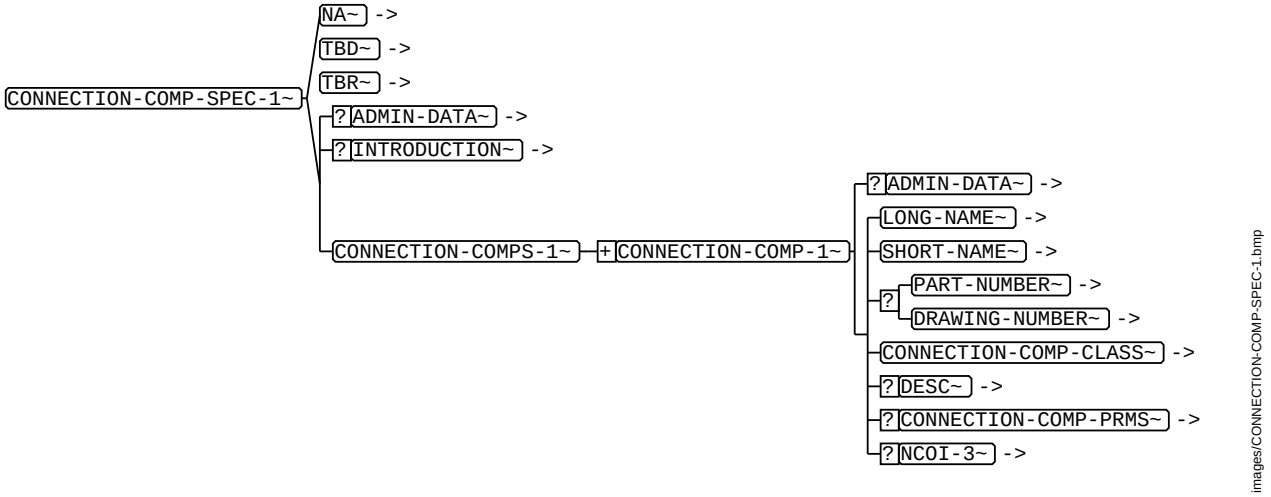


Figure 37: DTD-diagram for CONNECTION-COMP-SPEC-1

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <connection-comps-1>**

parent elements **<net-architecture>**

Table 36: Attributes for CONNECTION-COMP-SPEC-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		

4.7 CONNECTION-COMPS-1

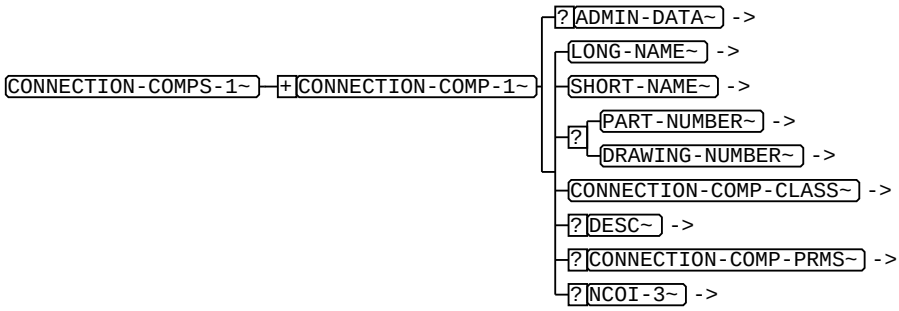


Figure 38: DTD-diagram for CONNECTION-COMPS-1

Child elements **<connection-comp-1>**

parent elements **<connection-comp-spec-1>**

Table 37: Attributes for CONNECTION-COMPS-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		

4.8 CYCLE-TIME

Figure 39: DTD-diagram for CYCLE-TIME

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

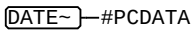
parent elements **<transmission-prms>**

Table 38: Attributes for CYCLE-TIME

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

5 DATE ... DRIVER-CONCEPT

5.1 DATE



images/DATE.bmp

Figure 40: DTD-diagram for DATE

Child elements none

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

Table 39: Attributes for DATE

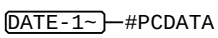
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Date information according to local rules resp. agreed standards. If the DTD is configured multilingual, the date can be specified in multiple languages.

Example
```
<date>23.11.1998</date>
```
or as an international date
```
<date>1998-11-23</date>
```

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

5.2 DATE-1



images/DATE-1.bmp

Figure 41: DTD-diagram for DATE-1

Child elements none

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

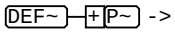
Table 40: Attributes for DATE-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Date information according to local rules resp. agreed standards. Even if the DTD is configured multilingual, the date **can not** be specified in multiple languages.

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

5.3 DEF



images/DEF.bmp

Figure 42: DTD-diagram for DEF

Child elements **<p>**

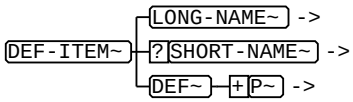
parent elements **<def-item>**

Table 41: Attributes for DEF

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This is a element of an definition list

5.4 DEF-ITEM



images/DEF-ITEM.bmp

Figure 43: DTD-diagram for DEF-ITEM

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

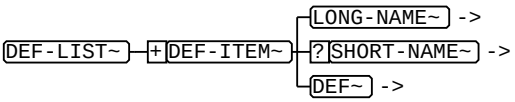
parent elements **<def-list>**

Table 42: Attributes for DEF-ITEM

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

Description Null

5.5 DEF-LIST



images/DEF-LIST.bmp

Figure 44: DTD-diagram for DEF-LIST

Child elements **<def-item>**

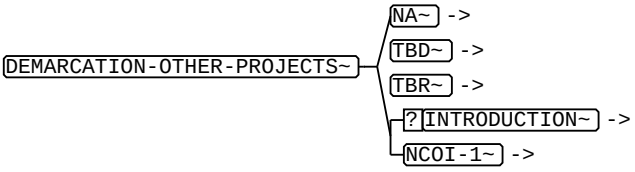
parent elements **<add-info> <chapter> <driver-concept> <entry> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 43: Attributes for DEF-LIST

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element allows the user to define a list.

5.6 DEMARCATION-OTHER-PROJECTS



images/DEMARCATION-OTHER-PROJECTS.bmp

Figure 45: DTD-diagram for DEMARCATION-OTHER-PROJECTS

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

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

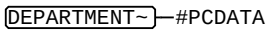
Table 44: Attributes for DEMARCATION-OTHER-PROJECTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Informal description of relationship to similar projects.

Description Specifies the demarcation and differences to other projects.

5.7 DEPARTMENT



images/DEPARTMENT.bmp

Figure 46: DTD-diagram for DEPARTMENT

Child elements none

parent elements **<team-member>**

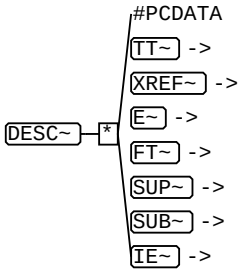
Table 45: Attributes for DEPARTMENT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Department of the **<team-member>**

Description This element contains the name of the department.

5.8 DESC



images/DESC.bmp

Figure 47: DTD-diagram for DESC

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

parent elements **<baudrate> <btl-cycles> <connection-comp-1> <cycle-time> <figure> <latency-time> <net-node-port> <overall-project> <phase-relations> <powerdown-receive-time> <powerup-receive-time> <powerup-transmit-time> <prm> <project> <sample-point> <sample-rate> <segment-length> <sjw> <sync-edge> <tbd>**

Table 46: Attributes for DESC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Informal, concise description of the subject in question. This is ususally one or two senctences.

Example
```
<sw-variable calibration="no-calibration" f-id-class="sw-variable" f-namespace="sw-variable
   <long-name>engine temperature</long-name>
   <short-name>tmot</short-name>
   <desc>The engine temeprature is stored in this variable</desc>
   ...
</sw-variable>
```

Description Short text description of the object.

5.9 DIR-HAND-OVER-DOC-DATA

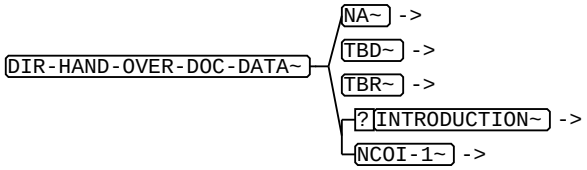


Figure 48: DTD-diagram for DIR-HAND-OVER-DOC-DATA

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

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

Table 47: Attributes for DIR-HAND-OVER-DOC-DATA

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

5.10 DLC

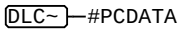


Figure 49: DTD-diagram for DLC

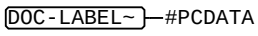
Child elements none

parent elements **<net-message>**

Table 48: Attributes for DLC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

5.11 DOC-LABEL



images/DOC-LABEL.bmp

Figure 50: DTD-diagram for DOC-LABEL

Child elements none

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

Table 49: Attributes for DOC-LABEL

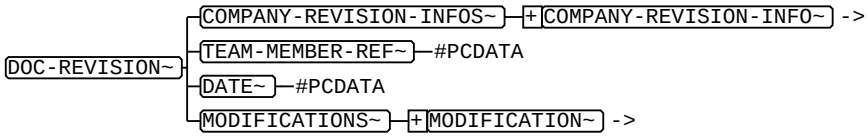
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This is the label of the document, serving as a company specific title or name of the document.

Example

Description Name of the document

5.12 DOC-REVISION



images/DOC-REVISION.bmp

Figure 51: DTD-diagram for DOC-REVISION

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

parent elements **<doc-revisions>**

Table 50: Attributes for DOC-REVISION

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

Description This element gets all information of the document revision in question.

Example

Description This element describes a document revision

5.13 DOC-REVISIONS

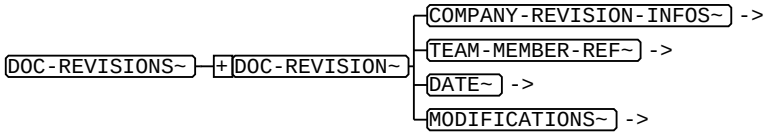


Figure 52: DTD-diagram for DOC-REVISIONS

Child elements **<doc-revision>**

parent elements **<admin-data>**

Table 51: Attributes for DOC-REVISIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This is the collection of all known revisions of the document thus establishing the revision history. It is highly recommended that the most actual revision is on top.

Description This element describes the document revisions

5.14 DRAWING-NUMBER

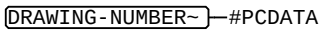


Figure 53: DTD-diagram for DRAWING-NUMBER

Child elements none

parent elements **<connection-comp-1>**

Table 52: Attributes for DRAWING-NUMBER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element defines the drawing number.

5.15 DRIVER-CONCEPT

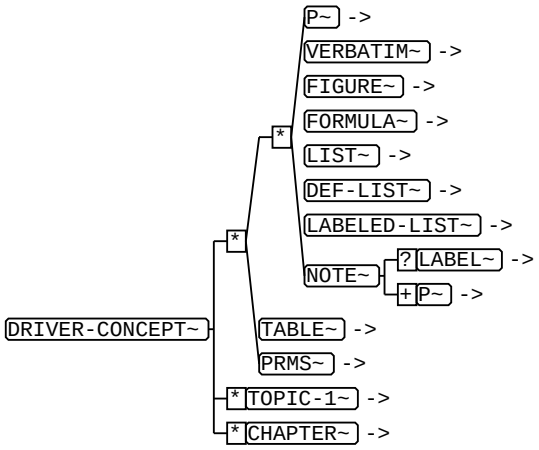


Figure 54: DTD-diagram for DRIVER-CONCEPT

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

parent elements **<net-interface-spec>**

Table 53: Attributes for DRIVER-CONCEPT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

6 E ... ERROR-VALUES

6.1 E

images/E.bmp

Figure 55: DTD-diagram for E

Child elements none

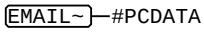
parent elements **<change> <desc> <indent-sample> <item-label> <p> <reason> <tbr>**

Table 54: Attributes for E

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

Description Identifies the scope of emphasized information.

6.2 EMAIL



images/EMAIL.bmp

Figure 56: DTD-diagram for EMAIL

Child elements none

parent elements **<team-member>**

Table 55: Attributes for EMAIL

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of the email-address.

6.3 ENTITY-NAME

images/ENTITY-NAME.bmp

Figure 57: DTD-diagram for ENTITY-NAME

Child elements none

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

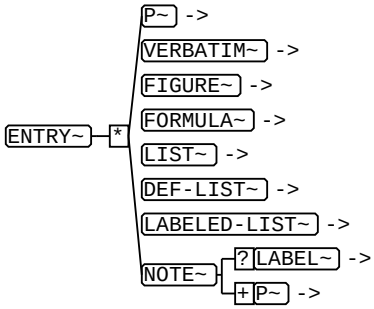
Table 56: Attributes for ENTITY-NAME

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Filename of the document fragment (if there is one). This is used to divide a document in multiple entities. *SGML tools* do not reflect this (physical) fragmentation on a logical level. Therefore, it must be entered manually here.

Description Filename of the document fragment.

6.4 ENTRY



images/ENTRY.bmp

Figure 58: DTD-diagram for ENTRY

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

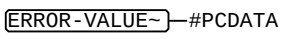
parent elements **<row>**

Table 57: Attributes for ENTRY

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	implied	LEFT RIGHT CEN-TER 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		
[VALIGN]	nmtkgrp	default	TOP TOP BOTTOM MID-DLE	

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.

6.5 ERROR-VALUE



images/ERROR-VALUE.bmp

Figure 59: DTD-diagram for ERROR-VALUE

Child elements none

parent elements **<error-values>**

Table 58: Attributes for ERROR-VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

6.6 ERROR-VALUES

images/ERROR-VALUES.bmp

Figure 60: DTD-diagram for ERROR-VALUES

Child elements **<error-value>**

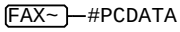
parent elements **<net-signal-spec-variant>**

Table 59: Attributes for ERROR-VALUES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

7 FAX ... FT

7.1 FAX



images/FAX.bmp

Figure 61: DTD-diagram for FAX

Child elements none

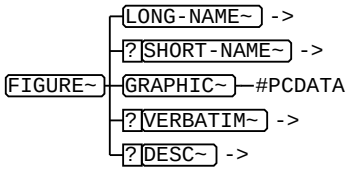
parent elements **<team-member>**

Table 60: Attributes for FAX

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Contents the fax number of an address.

7.2 FIGURE



images/FIGURE.bmp

Figure 62: DTD-diagram for FIGURE

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

parent elements **<add-info> <chapter> <driver-concept> <entry> <interface-circuit> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <net-topology-spec> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 61: Attributes for FIGURE

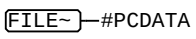
Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	FIGURE	
[FLOAT]	nmtkgrp	implied	FLOAT NO-FLOAT	
[HELP-ENTRY]	cdata	implied		
[ID]	id	required		
[S]	cdata	implied		

Description Graphics can be linked using this element.

Example

Description Identifies a figure in the document.

7.3 FILE



images/FILE.bmp

Figure 63: DTD-diagram for FILE

Child elements none

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

Table 62: Attributes for FILE

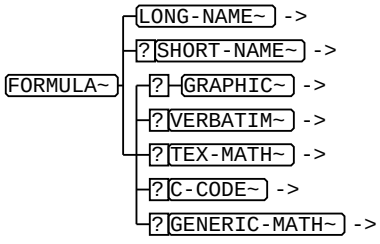
Name	Type	Class	Value	Remark
[FILENAME]	cdata	required		
[NOTATION]	cdata	required		
[S]	cdata	implied		
[TOOL]	cdata	required		
[TOOL-VERSION]	cdata	required		

Description Information on a file name for referencing an external file (e.g. a standard). With respect to the limited capabilites of SGML's entity and notation mechanism this is not used here.

Example `<file filename="agr.bmp" notation="eps" tool="ascet" tool-version="sd"></file>`

Description Definition of a filename (complete path).

7.4 FORMULA



images/FORMULA.bmp

Figure 64: DTD-diagram for FORMULA

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

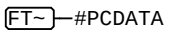
parent elements **<add-info> <chapter> <driver-concept> <entry> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 63: Attributes for FORMULA

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

Description Null

7.5 FT



images/FT.bmp

Figure 65: DTD-diagram for FT

Child elements none

parent elements **<change> <desc> <indent-sample> <item-label> <p> <reason> <tbr>**

Table 64: Attributes for FT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Identifies the body of a footnote in the document.

8 GENERAL-NET-SPEC ... GRAPHIC

8.1 GENERAL-NET-SPEC

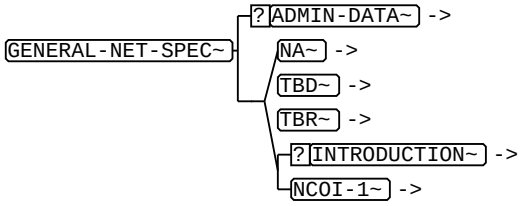


Figure 66: DTD-diagram for GENERAL-NET-SPEC

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

parent elements **<msrnet>**

Table 65: Attributes for GENERAL-NET-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

8.2 GENERAL-PROJECT-DATA

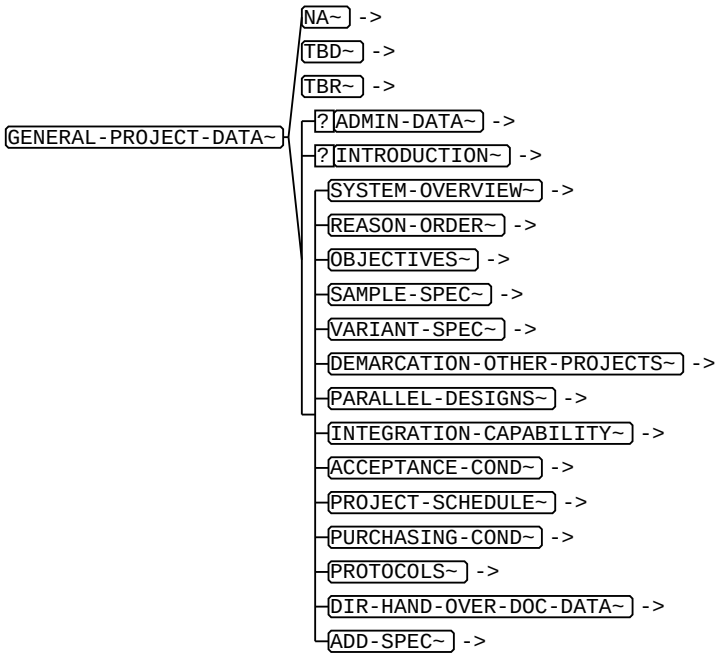


Figure 67: DTD-diagram for GENERAL-PROJECT-DATA

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 66: Attributes for GENERAL-PROJECT-DATA

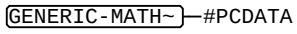
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description General project data.

Example

Description Specification of all general project data.

8.3 GENERIC-MATH



images/GENERIC-MATH.bmp

Figure 68: DTD-diagram for GENERIC-MATH

Child elements none

parent elements **<formula>**

Table 67: Attributes for GENERIC-MATH

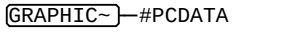
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element is inteded for the definition of semantic math description which can be processed by math processors. Acutally there is no recommendation for the language of the formula specification or usage of a special rendering system.

Example

Description Null

8.4 GRAPHIC



images/GRAPHIC.bmp

Figure 69: DTD-diagram for GRAPHIC

Child elements none

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

Table 68: 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		
[NOTATION]	cdata	required		
[S]	cdata	implied		
[SCALE]	cdata	implied		
[WIDTH]	cdata	implied		

Description The treatment of the graphic is determined by the attributes of **<graphic>**:

Do not enter annotating text to **<long-name>**in**<figure>** or **<table>**(like *Figure 1: ...*). This embellishment is the task of the processing system, not of the author. If the author adds these things, they will be there twice since the *rendition system* will add it again.

[category] Denotes the category of the graphic. This information can be used to generate more specific list of figures

[filename] Denotes the system filename where the *rendition system* can find the graphic. This is not necessarily the final format. It is up to the *rendition system* to locate the graphic in the company specific environment, to change the file extension to get the appropriate graphic representation.

The type of this attribute can be turned from *SDATA* to*ENTITY* in the DTD file in order to allow *SGML tool*s access to the file using its *entity manager*. In this case, the entity name should be chosen in the style of a filename (e.g. *crpctmt.wmf*)[1].

[fit]

0 figure is placed in original size. If it does not fit on the page or the available space, it is scaled down.

1 the figure is scaled up or down to fit the page as possible. This value will be ignored if **[width]** or **[height]** is specified in addition.

2 the figure is rotated counterclockwise by 90° if it is landscape and is wider than the actual text area. It is scaled down to the

[1] This is the way how this document is prepared. It is visible in the sgml source.

page size if it does not fit otherwise. This value will be ignored if **[width]** or **[height]** is specified in addition.

3 the figure is always rotated counterclockwise by 90°. If it does not fit on the page it will be scaled down. If **[width]** or **[height]** is specified in addition, the figure will be rotated and then scaled to the specified values.

4 the figure is always rotated counterclockwise by 90° and scaled up or down for best fit on the page. This value will be ignored if **[width]** or **[height]** is specified in addition.

[height] If this attribute has a value, the figure will be scaled to the defined height which is a real value with dimensions (e.g. ”10cm”, ”150mm”, ”12.5in”). If also **[width]**is specified the figure will be distorted. This value always specifies the width of the ”figure box” on the page after possible scaling/rotating.

[notation] This attribute specifies the format of the graphic file if used by an *SGML Application* supporting notations.

[scale] If this attribute receives a value, the figure will be scaled by the given factor which must be a signed real number. Numbers greater 1 increase the size of the figure, values less than 1 make the figure smaller. For example with *scale=”0.5”* the a figure of the size 10x10 cm will appear as 5*5cm.

[width] If this attribute has a value, the figure will be scaled to the defined width which is a real value with dimensions (e.g. ”10cm”, ”150mm”, ”12.5in”). If also **[height]**is specified the figure will be distorted. This value always specifies the width of the ”figure box” on the page after possible scaling/rotating.

The scaling attribute precedence is:

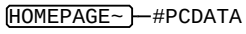
- **[scale]** has precedence over all
- **[fit]**has precedence over **[width]**and/or **[height]**

Example
```
<graphic filename=”ggub.bmp” notation=”eps”></graphic>
```

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

9 HOMEPAGE ... HOMEPAGE

9.1 HOMEPAGE



images/HOMEPAGE.bmp

Figure 70: DTD-diagram for HOMEPAGE

Child elements none

parent elements **<team-member>**

Table 69: Attributes for HOMEPAGE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Homepage of a team member

10 IDENTIFIER ... ITEM-LABEL

10.1 IDENTIFIER

images/IDENTIFIER.bmp

Figure 71: DTD-diagram for IDENTIFIER

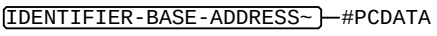
Child elements none

parent elements **<net-message-identifier>**

Table 70: Attributes for IDENTIFIER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

10.2 IDENTIFIER-BASE-ADDRESS



images/IDENTIFIER-BASE-ADDRESS.bmp

Figure 72: DTD-diagram for IDENTIFIER-BASE-ADDRESS

Child elements none

parent elements **<calc-net-message-identifiers>**

Table 71: Attributes for IDENTIFIER-BASE-ADDRESS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

10.3 IDENTIFIER-MASK

images/IDENTIFIER-MASK.bmp

Figure 73: DTD-diagram for IDENTIFIER-MASK

Child elements none

parent elements **<net-message>**

Table 72: Attributes for IDENTIFIER-MASK

Name	Type	Class	Value	Remark
[S]	cdata	implied		

10.4 IDENTIFIER-TYPE

images/IDENTIFIER-TYPE.bmp

Figure 74: DTD-diagram for IDENTIFIER-TYPE

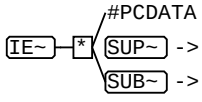
Child elements none

parent elements **<net-message>**

Table 73: Attributes for IDENTIFIER-TYPE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

10.5 IE



images/IE.bmp

Figure 75: DTD-diagram for IE

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

parent elements **<change> <desc> <indent-sample> <item-label> <long-name> <long-name-1> <p> <reason> <tbr>**

Table 74: Attributes for IE

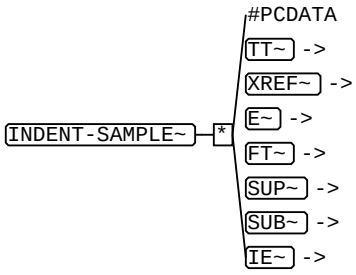
Name	Type	Class	Value	Remark
[S]	cdata	implied		
[TYPE]	cdata	implied		

Description This is an index entry. The contents only appears in the index, not at the location where it is defined. This allows to define slightly different wording for the index than in the text itself.

Example
```
<p>This is an example of an <ie>index element</ie>index entry
```

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

10.6 INDENT-SAMPLE



images/INDENT-SAMPLE.bmp

Figure 76: DTD-diagram for INDENT-SAMPLE

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

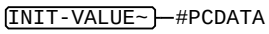
parent elements **<labeled-list>**

Table 75: 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		

Description Null

10.7 INIT-VALUE



images/INIT-VALUE.bmp

Figure 77: DTD-diagram for INIT-VALUE

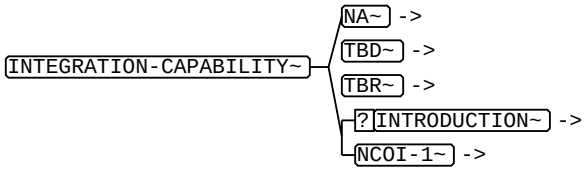
Child elements none

parent elements **<net-signal-spec-variant>**

Table 76: Attributes for INIT-VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

10.8 INTEGRATION-CAPABILITY



images/INTEGRATION-CAPABILITY.bmp

Figure 78: DTD-diagram for INTEGRATION-CAPABILITY

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

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

Table 77: Attributes for INTEGRATION-CAPABILITY

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

10.9 INTERFACE-CIRCUIT

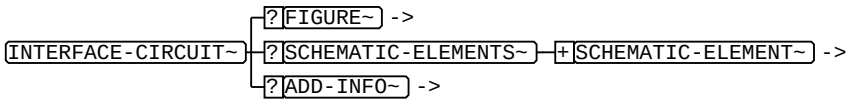


Figure 79: DTD-diagram for INTERFACE-CIRCUIT

Child elements **<figure> <schematic-elements> <add-info>**

parent elements **<node-variant>**

Table 78: Attributes for INTERFACE-CIRCUIT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This alpha-numeric parameter describes the type of interface circuit.

10.10 INTRODUCTION

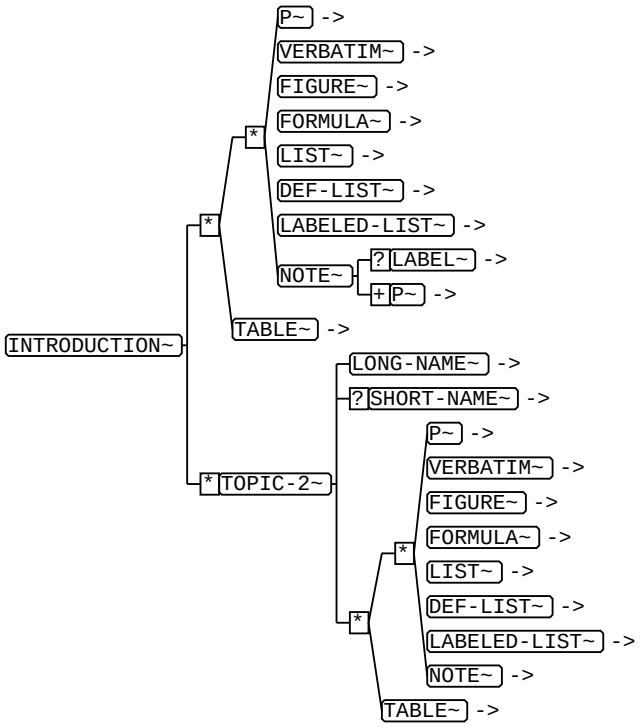


Figure 80: DTD-diagram for INTRODUCTION

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

parent elements **<acceptance-cond> <add-spec> <company-revision-info> <connection-comp-spec-1> <demarcation-other-projects> <dir-hand-over-doc-data> <general-net-spec> <general-project-data> <integration-capability> <net-architecture> <net-block-modes> <net-diag-spec> <net-error-handling> <net-init-spec> <net-interface-spec> <net-line-spec> <net-message-spec> <net-mgmt-spec> <net-node-spec> <net-oper-spec> <net-signal-spec> <net-topology-spec> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <segmentation-spec> <system-overview> <variant-spec>**

Table 79: Attributes for INTRODUCTION

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This is used to give a short introduction about the subject in question. It exists at the beginning of its parent element. It is not intended to use **<introduction>** for a full fledged description.

Example
```
<introduction>
  <p>This system is used to control the engine.</p>
</introduction>
```

Description This element can be used to create an introduction.

10.11 ITEM

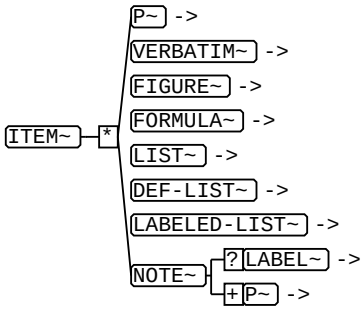


Figure 81: DTD-diagram for ITEM

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

parent elements **<list>**

Table 80: Attributes for ITEM

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Identifes an item typically occurring within a list.

10.12 ITEM-LABEL

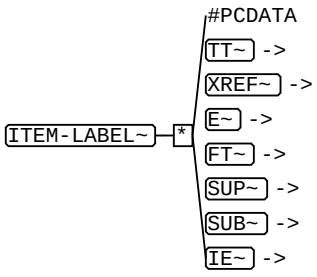


Figure 82: DTD-diagram for ITEM-LABEL

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

parent elements **<labeled-item>**

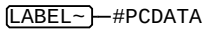
Table 81: Attributes for ITEM-LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

11 LABEL ... LONG-NAME-1

11.1 LABEL



images/LABEL.bmp

Figure 83: DTD-diagram for LABEL

Child elements none

parent elements **<multiplex-signal-set> <net-node-port> <note> <overall-project> <prms> <project> <schematic-element>**

Table 82: Attributes for LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		

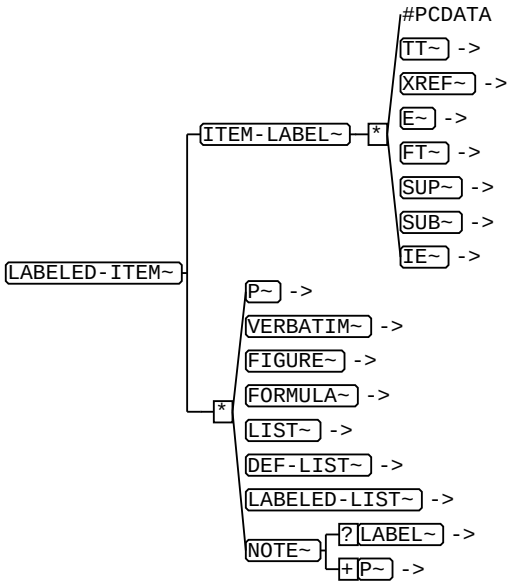
Description Serves as a title (similar to **<long-name>**) for an object that must not, and cannot, be referenced, i.e. possesses no**< short-name>** and no **[id]**.

A **<label>** within **<sw-param-value-block>** is a long designation for the characteristic values of a characteristic values block.

Example
```
<sw-param-value-block>
   <sw-param-axis-values>
      <sw-compu-method-ref sw-compu-method=”dez”>
         </sw-compu-method-ref>
         <labels>
            <label>sensor rear left</label>
            <label>sensor rear right</label>
            <label>sensor front left</label>
            <label>sensor front right</label>
         <l/abels>
   </sw-param-axis-values>
   <count>4</count>
</sw-param-value-block>
```

Description This element contents a short label.

11.2 LABELED-ITEM



images/LABELED-ITEM.bmp

Figure 84: DTD-diagram for LABELED-ITEM

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

parent elements **<labeled-list>**

Table 83: Attributes for LABELED-ITEM

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

Description Null

11.3 LABELED-LIST

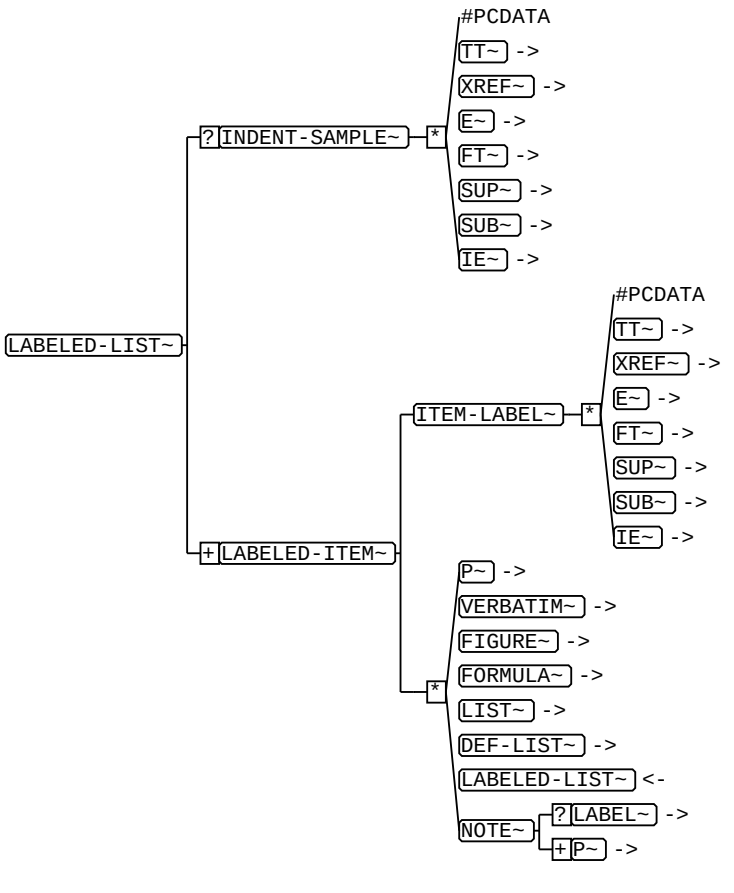


Figure 85: DTD-diagram for LABELED-LIST

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

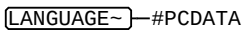
parent elements **<add-info> <chapter> <driver-concept> <entry> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 84: Attributes for LABELED-LIST

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

11.4 LANGUAGE



images/LANGUAGE.bmp

Figure 86: DTD-diagram for LANGUAGE

Child elements none

parent elements **<admin-data>**

Table 85: Attributes for LANGUAGE

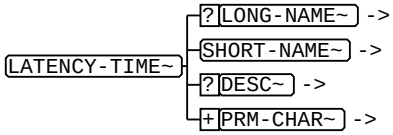
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Identifies the masterlanguage for **<admin-data>**

Example

Description Defines the laguage of the document (fragment).

11.5 LATENCY-TIME



images/LATENCY-TIME.bmp

Figure 87: DTD-diagram for LATENCY-TIME

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

parent elements **<transmission-prms>**

Table 86: Attributes for LATENCY-TIME

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

11.6 LIST

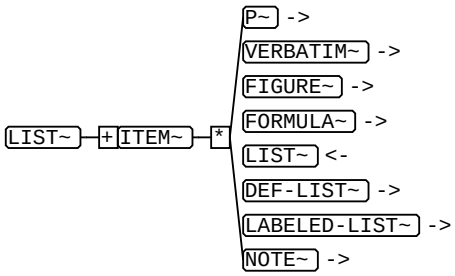


Figure 88: DTD-diagram for LIST

Child elements **<item>**

parent elements **<add-info> <chapter> <driver-concept> <entry> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 87: Attributes for LIST

Name	Type	Class	Value	Remark
[S]	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.

11.7 LOCS

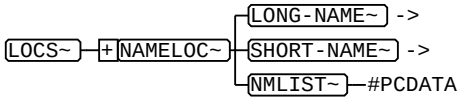


Figure 89: DTD-diagram for LOCS

Child elements **<nameloc>**

parent elements **<msrnet>**

Table 88: Attributes for LOCS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element is used for cross document/entity referencing (HyTime referencing using namelocs)

Example

Description Null

11.8 LONG-NAME

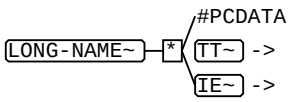


Figure 90: DTD-diagram for LONG-NAME

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

parent elements **<baudrate> <btl-cycles> <chapter> <company> <connection-comp-1> <cycle-time> <def-item> <figure> <formula> <latency-time> <nameloc> <net-line> <net-message> <net-message-set> <net-node> <net-node-port> <net-signal> <net-signal-group> <phase-relations> <powerdown-receive-time> <powerup-receive-time> <powerup-transmit-time> <prm> <sample> <sample-point> <sample-rate> <segment-length> <sjw> <sw-compu-method> <sw-unit> <sync-edge> <table> <team-member> <topic-1> <topic-2> <variant-char> <variant-def>**

Table 89: Attributes for LONG-NAME

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Long designation, e.g. ”Engine temperature”.

Example
```
<sw-variable id=”tmot”>
   <long-name>engine temperature</long-name>
   <short-name>tmot</short-name>
   <desc></desc>
    ...
</sw-variable>
```

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

11.9 LONG-NAME-1

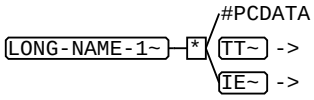


Figure 91: DTD-diagram for LONG-NAME-1

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

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

Table 90: Attributes for LONG-NAME-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

12 MAX ... MULTIPLEXOR-VALUE

12.1 MAX

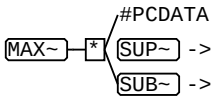


Figure 92: DTD-diagram for MAX

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

parent elements **<prm-char>**

Table 91: Attributes for MAX

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Maximum value of a parameter

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

12.2 MESSAGE-IDENTIFIER-OFFSET

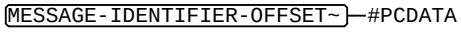


Figure 93: DTD-diagram for MESSAGE-IDENTIFIER-OFFSET

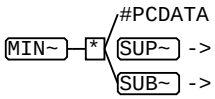
Child elements none

parent elements **<node-variant>**

Table 92: Attributes for MESSAGE-IDENTIFIER-OFFSET

Name	Type	Class	Value	Remark
[S]	cdata	implied		

12.3 MIN



images/MIN.bmp

Figure 94: DTD-diagram for MIN

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

parent elements **<prm-char>**

Table 93: Attributes for MIN

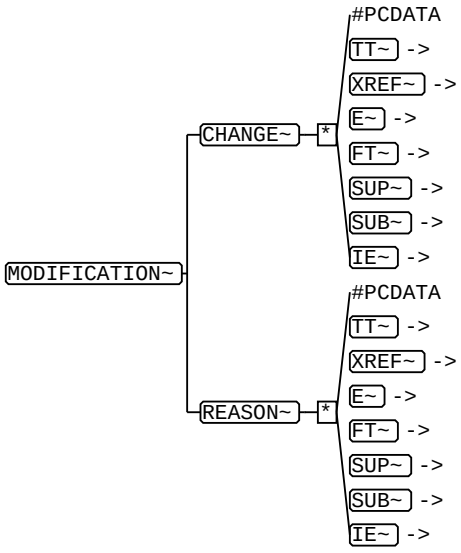
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Minimum value for prm-char

Example

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

12.4 MODIFICATION



images/MODIFICATION.bmp

Figure 95: DTD-diagram for MODIFICATION

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

parent elements **<modifications>**

Table 94: Attributes for MODIFICATION

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

Description

Example

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

12.5 MODIFICATIONS

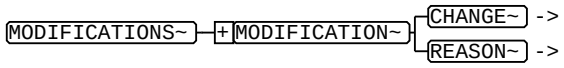


Figure 96: DTD-diagram for MODIFICATIONS

Child elements **<modification>**

parent elements **<doc-revision>**

Table 95: Attributes for MODIFICATIONS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description

Example

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

12.6 MSRNET

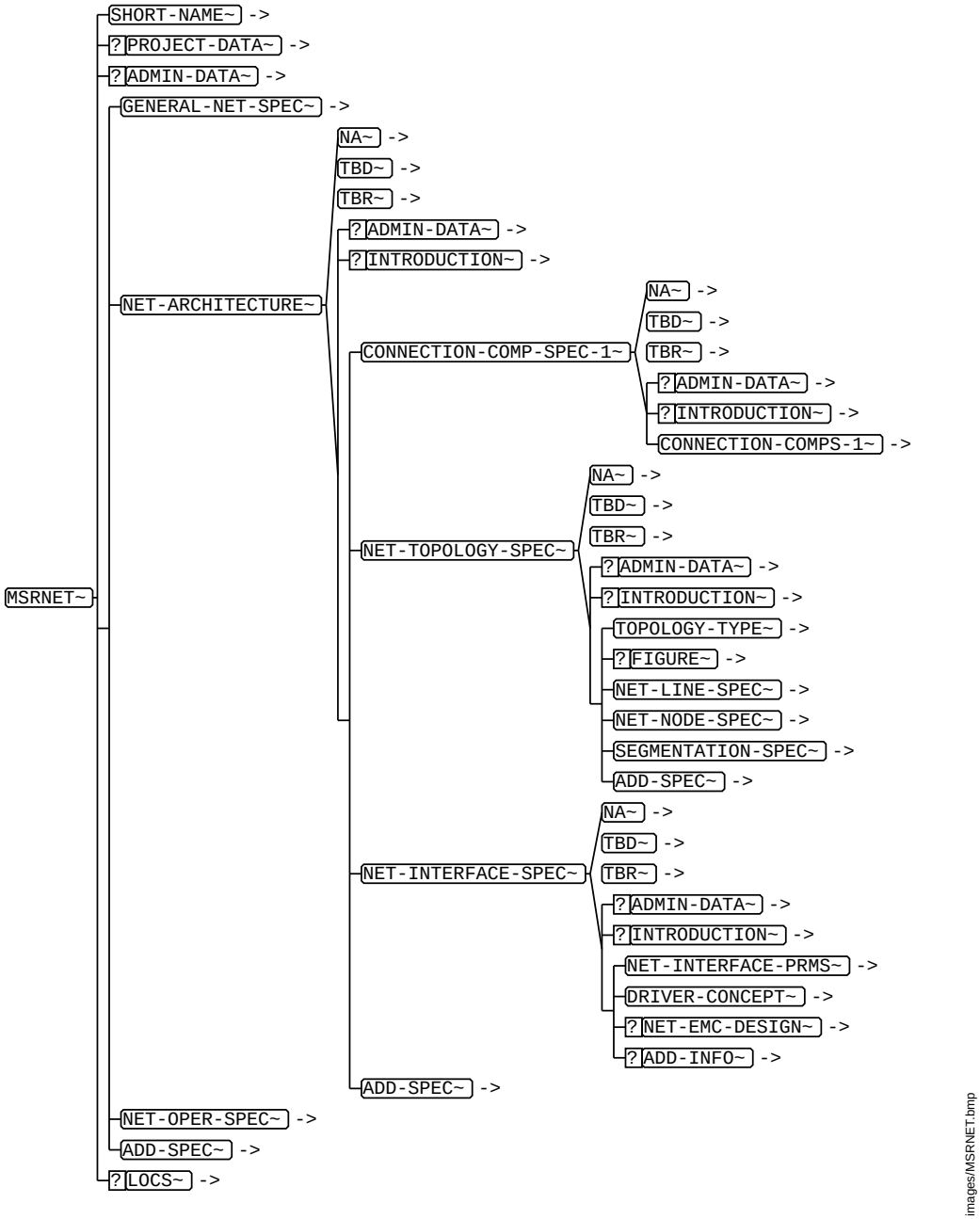


Figure 97: DTD-diagram for MSRNET

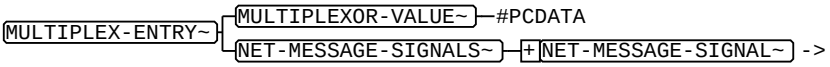
Child elements **<short-name> <project-data> <admin-data> <general-net-spec> <net-architecture> <net-oper-spec> <add-spec> <locs>**

parent elements none

Table 96: Attributes for MSRNET

Name	Type	Class	Value	Remark
[F-NAMESPACE]	names	fixed	CHAPTER COMPANY CONNECTION-COMP DEF-ITEM FIGURE FORMULA NET-LINE NET-MESSAGE NET-MESSAGE-SET NET-NODE NET-NODE-PORT NET-SIGNAL NET-SIGNAL-GROUP PRM SAMPLE STD SW-COMPU-METHOD SW-UNIT TABLE TEAM-MEMBER TOPIC VARIANT-CHAR VARIANT-DEF X-DOC XFILE	
[F-PUBID]	cdata	fixed	-//MSR//DTD MSR NETWORK DTD:V1.1.1:MSRNET.DTD//EN	
[HYTIME]	name	fixed	HYDOC	
[PUBID]	cdata	default	-//MSR//DTD MSR NETWORK DTD:V1.1.1:MSRNET.DTD//EN	
[S]	cdata	implied		

12.7 MULTIPLEX-ENTRY



images/MULTIPLEX-ENTRY.bmp

Figure 98: DTD-diagram for MULTIPLEX-ENTRY

Child elements **<multiplexor-value> <net-message-signals>**

parent elements **<multiplex-signal-list>**

Table 97: Attributes for MULTIPLEX-ENTRY

Name	Type	Class	Value	Remark
[S]	cdata	implied		

12.8 MULTIPLEX-SIGNAL-LIST

Figure 99: DTD-diagram for MULTIPLEX-SIGNAL-LIST

Child elements **<multiplex-entry>**

parent elements **<multiplex-signal-set>**

Table 98: Attributes for MULTIPLEX-SIGNAL-LIST

Name	Type	Class	Value	Remark
[S]	cdata	implied		

12.9 MULTIPLEX-SIGNAL-SET

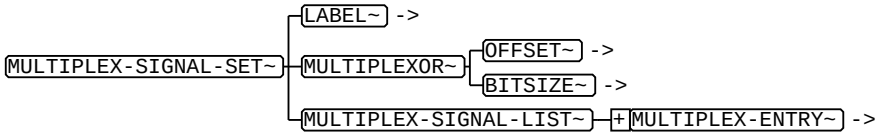


Figure 100: DTD-diagram for MULTIPLEX-SIGNAL-SET

Child elements **<label> <multiplexor> <multiplex-signal-list>**

parent elements **<net-message-signal>**

Table 99: Attributes for MULTIPLEX-SIGNAL-SET

Name	Type	Class	Value	Remark
[S]	cdata	implied		

12.10 MULTIPLEXOR

images/MULTIPLEXOR.bmp

Figure 101: DTD-diagram for MULTIPLEXOR

Child elements **<offset> <bitsize>**

parent elements **<multiplex-signal-set>**

Table 100: Attributes for MULTIPLEXOR

Name	Type	Class	Value	Remark
[S]	cdata	implied		

12.11 MULTIPLEXOR-VALUE

images/MULTIPLEXOR-VALUE.bmp

Figure 102: DTD-diagram for MULTIPLEXOR-VALUE

Child elements none

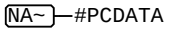
parent elements **<multiplex-entry>**

Table 101: Attributes for MULTIPLEXOR-VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13 NA ... NET-MESSAGE-IDENTIFIERS

13.1 NA



images/NA.bmp

Figure 103: DTD-diagram for NA

Child elements none

parent elements **<acceptance-cond> <add-spec> <connection-comp-spec-1> <demarcation-other-projects> <dir-hand-over-doc-data> <general-net-spec> <general-project-data> <integration-capability> <net-architecture> <net-block-modes> <net-diag-spec> <net-error-handling> <net-init-spec> <net-interface-spec> <net-line-spec> <net-message-spec> <net-mgmt-spec> <net-node-spec> <net-oper-spec> <net-signal-spec> <net-topology-spec> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <segmentation-spec> <system-overview> <variant-spec>**

Table 102: Attributes for NA

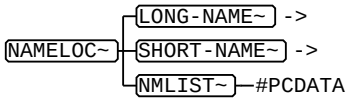
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element is used instead of sub-structures if certain statements are not relevant (”not applicable”).

Example
```
<sw-param-contents-spec>
   <na></na>
</sw-param-contents-spec>
```

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.

13.2 NAMELOC



images/NAMELOC.bmp

Figure 104: DTD-diagram for NAMELOC

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

parent elements **<locs>**

Table 103: Attributes for NAMELOC

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

Description Null

13.3 NCOI-1

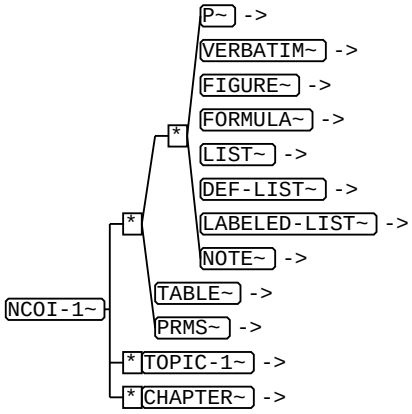


Figure 105: DTD-diagram for NCOI-1

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> <general-net-spec> <integration-capability> <net-block-modes> <net-diag-spec> <net-error-handling> <net-init-spec> <net-mgmt-spec> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sam-ple> <system-overview>**

Table 104: Attributes for NCOI-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This is a general element that contains informal and non-software-specific structures (”none coded information”).

Example

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!

13.4 NCOI-3

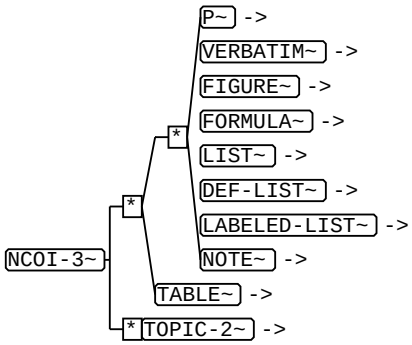


Figure 106: DTD-diagram for NCOI-3

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

parent elements **<connection-comp-1>**

Table 105: Attributes for NCOI-3

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

13.5 NET-ARCHITECTURE

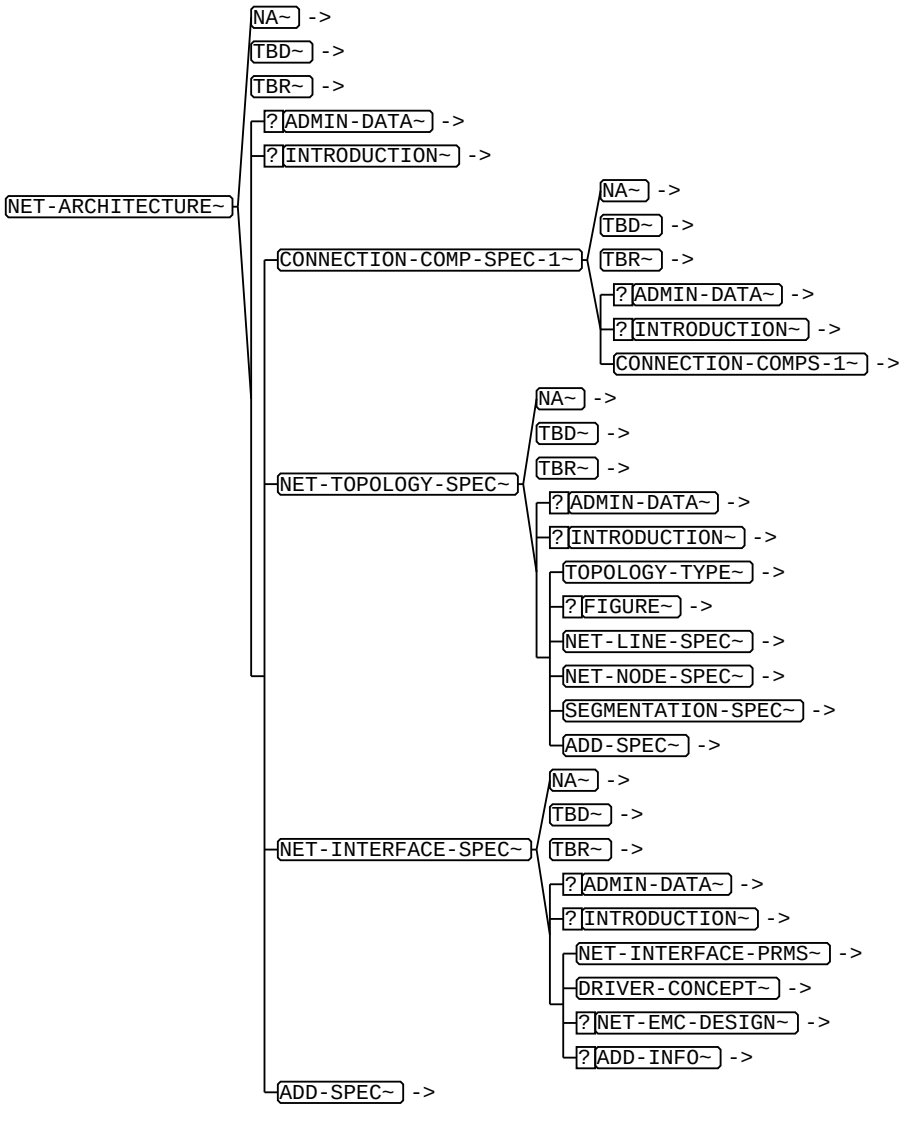


Figure 107: DTD-diagram for NET-ARCHITECTURE

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <connection-comp-spec-1> <net-topology-spec> <net-interface-spec> <add-spec>**

parent elements **<msrnet>**

Table 106: Attributes for NET-ARCHITECTURE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.6 NET-BLOCK-MODES

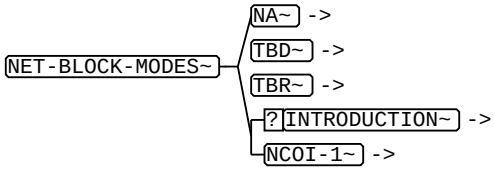


Figure 108: DTD-diagram for NET-BLOCK-MODES

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

parent elements **<net-oper-spec>**

Table 107: Attributes for NET-BLOCK-MODES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.7 NET-DIAG-SPEC

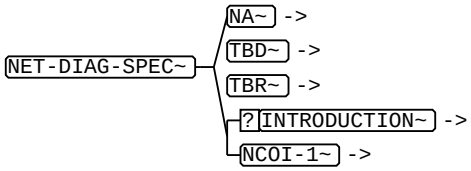


Figure 109: DTD-diagram for NET-DIAG-SPEC

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

parent elements **<net-oper-spec>**

Table 108: Attributes for NET-DIAG-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.8 NET-EMC-DESIGN

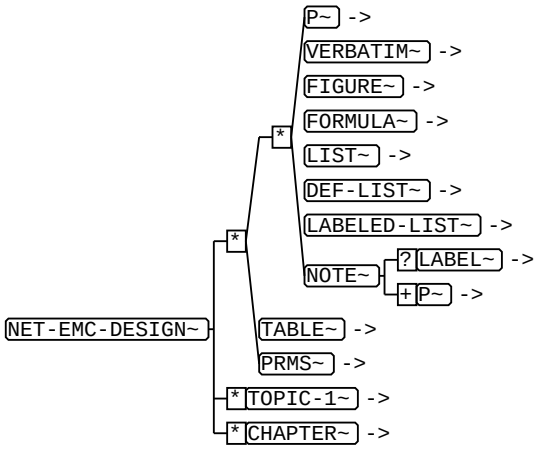


Figure 110: DTD-diagram for NET-EMC-DESIGN

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

parent elements **<net-interface-spec>**

Table 109: Attributes for NET-EMC-DESIGN

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.9 NET-ERROR-HANDLING

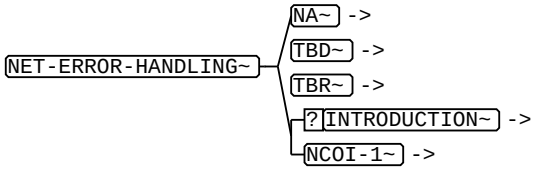


Figure 111: DTD-diagram for NET-ERROR-HANDLING

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

parent elements **<net-oper-spec>**

Table 110: Attributes for NET-ERROR-HANDLING

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.10 NET-INIT-SPEC

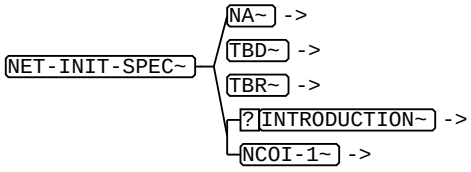


Figure 112: DTD-diagram for NET-INIT-SPEC

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

parent elements **<net-oper-spec>**

Table 111: Attributes for NET-INIT-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.11 NET-INTERFACE-PRMS

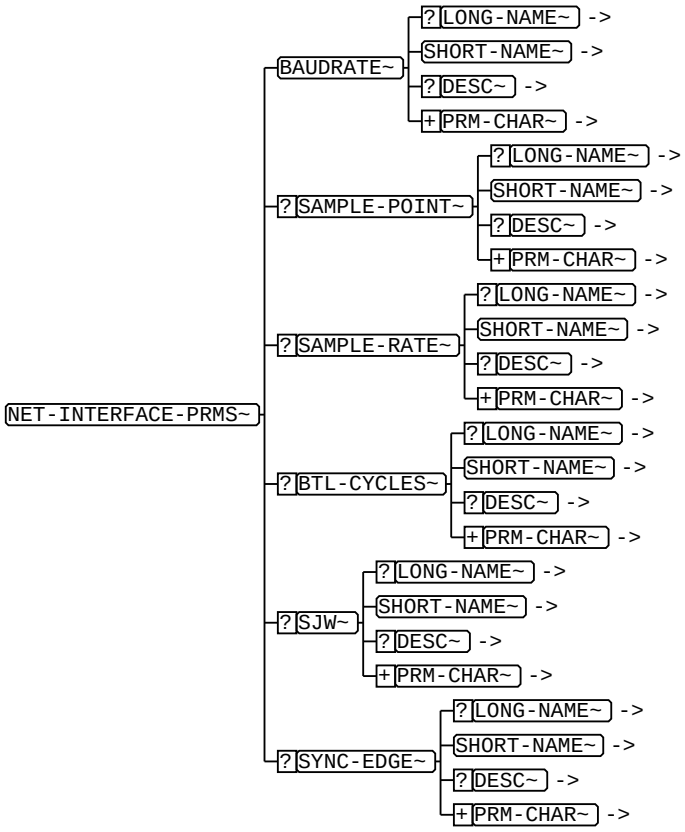


Figure 113: DTD-diagram for NET-INTERFACE-PRMS

Child elements **<baudrate> <sample-point> <sample-rate> <btl-cycles> <sjw> <sync-edge>**

parent elements **<net-interface-spec>**

Table 112: Attributes for NET-INTERFACE-PRMS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.12 NET-INTERFACE-SPEC

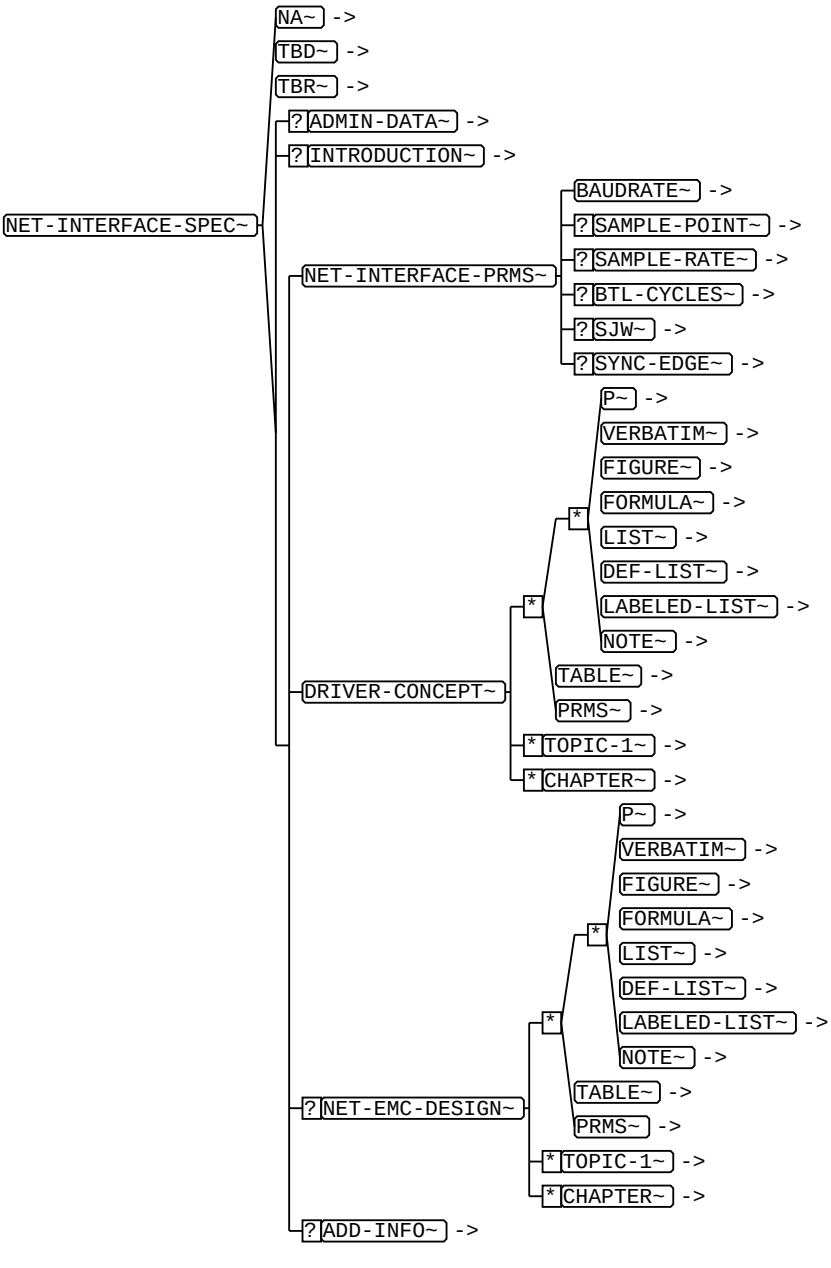


Figure 114: DTD-diagram for NET-INTERFACE-SPEC

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <net-interface-prms> <driver-concept> <net-emc-design> <add-info>**

parent elements **<net-architecture>**

Table 113: Attributes for NET-INTERFACE-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.13 NET-LINE

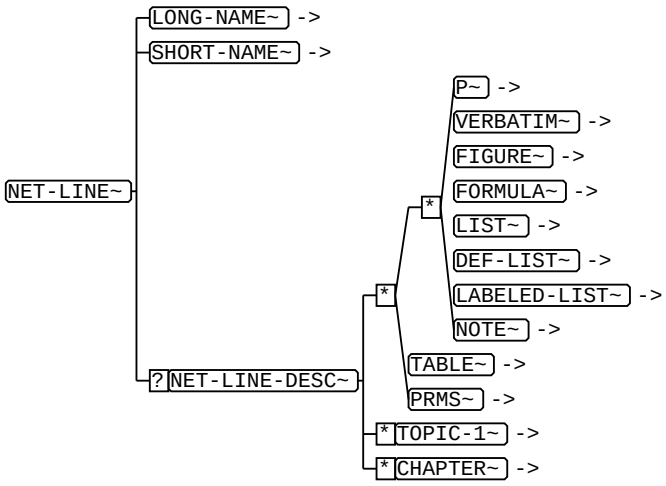


Figure 115: DTD-diagram for NET-LINE

Child elements **<long-name> <short-name> <net-line-desc>**

parent elements **<net-lines>**

Table 114: Attributes for NET-LINE

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

Description Null

13.14 NET-LINE-DESC

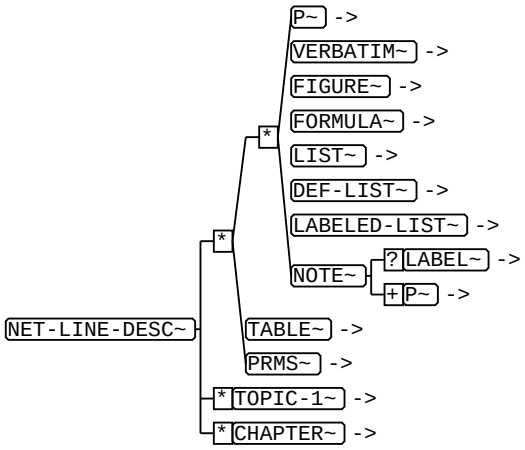


Figure 116: DTD-diagram for NET-LINE-DESC

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

parent elements **<net-line>**

Table 115: Attributes for NET-LINE-DESC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.15 NET-LINE-SPEC

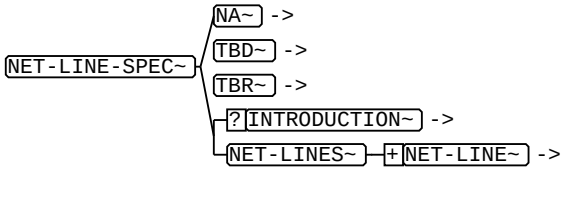


Figure 117: DTD-diagram for NET-LINE-SPEC

Child elements **<na> <tbd> <tbr> <introduction> <net-lines>**

parent elements **<net-topology-spec>**

Table 116: Attributes for NET-LINE-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.16 NET-LINES

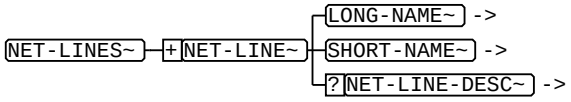


Figure 118: DTD-diagram for NET-LINES

Child elements **<net-line>**

parent elements **<net-line-spec>**

Table 117: Attributes for NET-LINES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

13.17 NET-MESSAGE

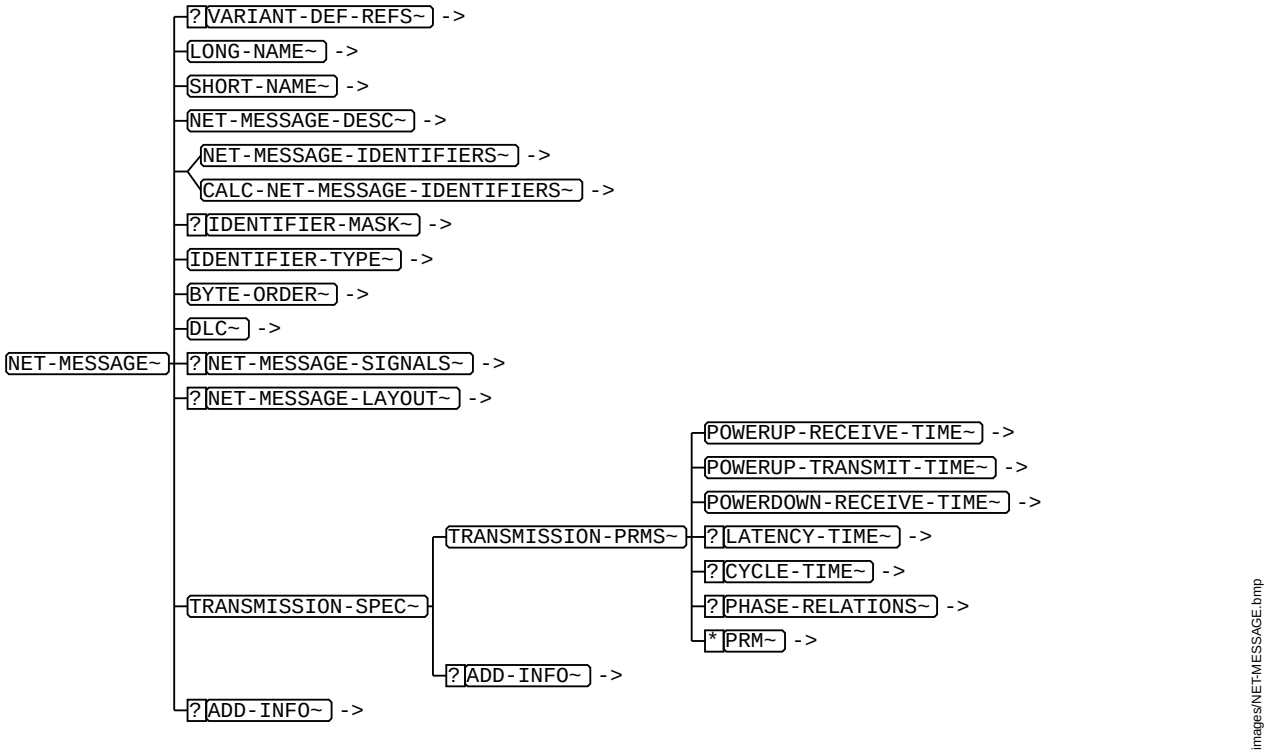


Figure 119: DTD-diagram for NET-MESSAGE

Child elements **<variant-def-refs> <long-name> <short-name> <net-message-desc> <net-message-identifiers> <calc-net-message-identifiers>**

<identifier-mask> <identifier-type> <byte-order> <dlc> <net-message-signals> <net-message-layout> <transmission-spec> <add-info>

parent elements **<net-messages>**

Table 118: Attributes for NET-MESSAGE

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

13.18 NET-MESSAGE-DESC

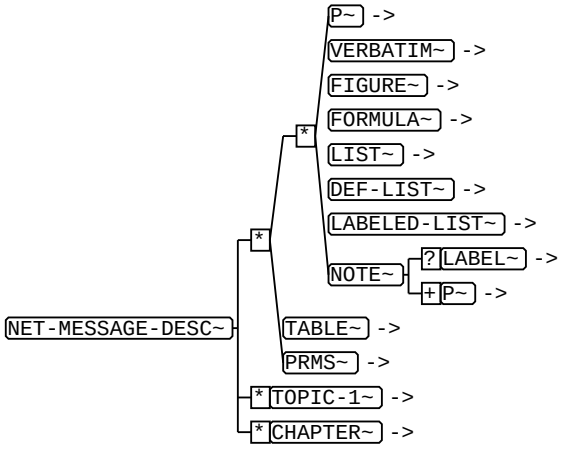


Figure 120: DTD-diagram for NET-MESSAGE-DESC

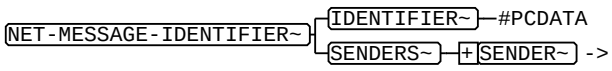
Child elements **<p> <verbatim> <figure> <formula> <list> <def-list> <labeled-list> <note> <table> <prms> <topic-1> <chapter>**

parent elements **<net-message>**

Table 119: Attributes for NET-MESSAGE-DESC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.19 NET-MESSAGE-IDENTIFIER



images/NET-MESSAGE-IDENTIFIER.bmp

Figure 121: DTD-diagram for NET-MESSAGE-IDENTIFIER

Child elements **<identifier> <senders>**

parent elements **<net-message-identifiers>**

Table 120: Attributes for NET-MESSAGE-IDENTIFIER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

13.20 NET-MESSAGE-IDENTIFIERS

images/NET-MESSAGE-IDENTIFIERS.bmp

Figure 122: DTD-diagram for NET-MESSAGE-IDENTIFIERS

Child elements **<net-message-identifier>**

parent elements **<net-message>**

Table 121: Attributes for NET-MESSAGE-IDENTIFIERS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14 NET-MESSAGE-LAYOUT ... NET-SIGNAL-CLASS

14.1 NET-MESSAGE-LAYOUT

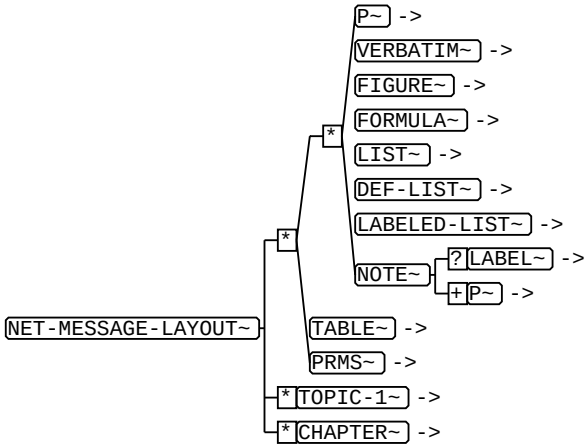


Figure 123: DTD-diagram for NET-MESSAGE-LAYOUT

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

parent elements **<net-message>**

Table 122: Attributes for NET-MESSAGE-LAYOUT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.2 NET-MESSAGE-SET

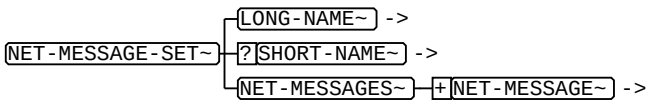


Figure 124: DTD-diagram for NET-MESSAGE-SET

Child elements **<long-name> <short-name> <net-messages>**

parent elements **<net-message-sets>**

Table 123: Attributes for NET-MESSAGE-SET

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	NET-MESSAGE-SET	
[ID]	id	required		
[S]	cdata	implied		

14.3 NET-MESSAGE-SETS

Figure 125: DTD-diagram for NET-MESSAGE-SETS

Child elements **<net-message-set>**

parent elements **<net-message-spec>**

Table 124: Attributes for NET-MESSAGE-SETS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.4 NET-MESSAGE-SIGNAL

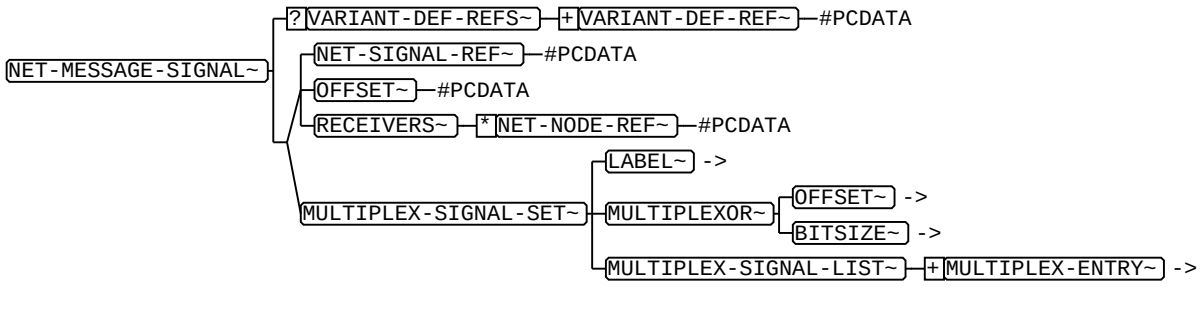


Figure 126: DTD-diagram for NET-MESSAGE-SIGNAL

Child elements **<variant-def-refs> <net-signal-ref> <offset> <receivers> <multiplex-signal-set>**

parent elements **<net-message-signals>**

Table 125: Attributes for NET-MESSAGE-SIGNAL

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.5 NET-MESSAGE-SIGNALS

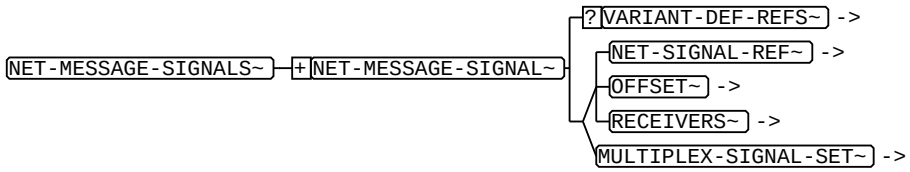


Figure 127: DTD-diagram for NET-MESSAGE-SIGNALS

Child elements **<net-message-signal>**

parent elements **<multiplex-entry> <net-message>**

Table 126: Attributes for NET-MESSAGE-SIGNALS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.6 NET-MESSAGE-SPEC

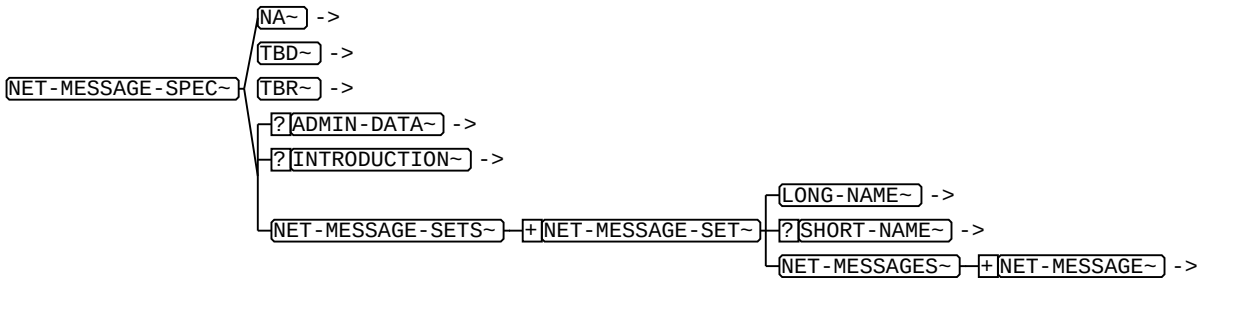


Figure 128: DTD-diagram for NET-MESSAGE-SPEC

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <net-message-sets>**

parent elements **<net-oper-spec>**

Table 127: Attributes for NET-MESSAGE-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.7 NET-MESSAGES

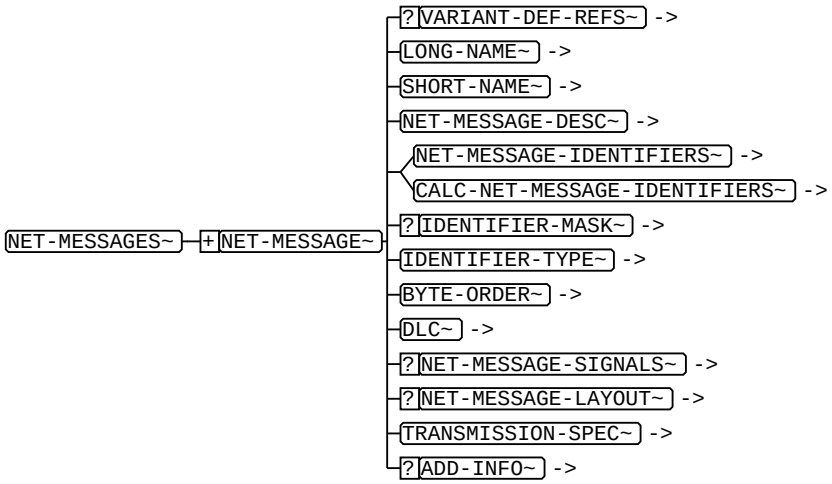


Figure 129: DTD-diagram for NET-MESSAGES

Child elements **<net-message>**

parent elements **<net-message-set>**

Table 128: Attributes for NET-MESSAGES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.8 NET-MGMT-SPEC

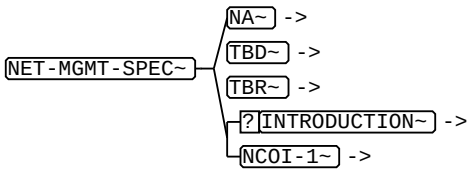


Figure 130: DTD-diagram for NET-MGMT-SPEC

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

parent elements **<net-oper-spec>**

Table 129: Attributes for NET-MGMT-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.9 NET-NODE

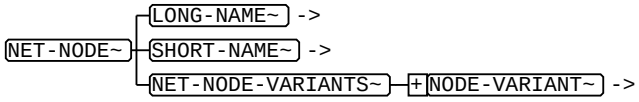


Figure 131: DTD-diagram for NET-NODE

Child elements **<long-name> <short-name> <net-node-variants>**

parent elements **<net-nodes>**

Table 130: Attributes for NET-NODE

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	NET-NODE	
[F-NAMESPACE]	names	fixed	NET-NODE-PORT	
[ID]	id	required		
[S]	cdata	implied		

14.10 NET-NODE-PORT

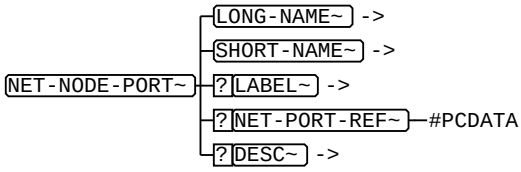


Figure 132: DTD-diagram for NET-NODE-PORT

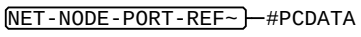
Child elements **<long-name> <short-name> <label> <net-port-ref> <desc>**

parent elements **<net-node-ports>**

Table 131: Attributes for NET-NODE-PORT

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	NET-NODE-PORT	
[ID]	id	required		
[S]	cdata	implied		

14.11 NET-NODE-PORT-REF



images/NET-NODE-PORT-REF.bmp

Figure 133: DTD-diagram for NET-NODE-PORT-REF

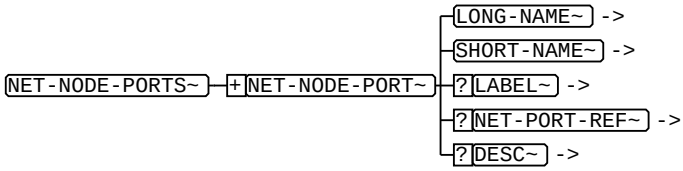
Child elements none

parent elements **<segment-end-nodes> <segment-end-nodes>**

Table 132: Attributes for NET-NODE-PORT-REF

Name	Type	Class	Value	Remark
[HYNAMES]	names	fixed	LINKEND NET-NODE-PORT	
[HYTIME]	name	fixed	CLINK	
[NET-NODE-PORT]	idref	required		
[S]	cdata	implied		

14.12 NET-NODE-PORTS



images/NET-NODE-PORTS.bmp

Figure 134: DTD-diagram for NET-NODE-PORTS

Child elements **<net-node-port>**

parent elements **<node-variant>**

Table 133: Attributes for NET-NODE-PORTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.13 NET-NODE-REF

images/NET-NODE-REF.bmp

Figure 135: DTD-diagram for NET-NODE-REF

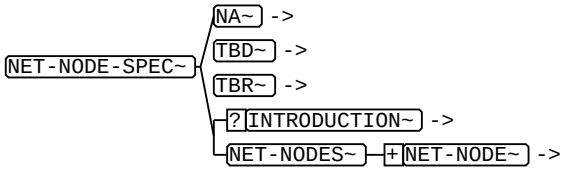
Child elements none

parent elements **<receivers> <sender>**

Table 134: Attributes for NET-NODE-REF

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

14.14 NET-NODE-SPEC



images/NET-NODE-SPEC.bmp

Figure 136: DTD-diagram for NET-NODE-SPEC

Child elements **<na> <tbd> <tbr> <introduction> <net-nodes>**

parent elements **<net-topology-spec>**

Table 135: Attributes for NET-NODE-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.15 NET-NODE-VARIANTS

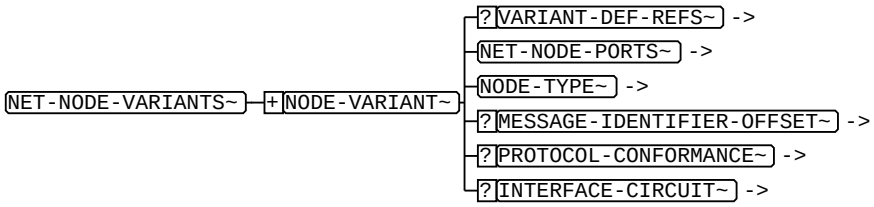


Figure 137: DTD-diagram for NET-NODE-VARIANTS

Child elements **<node-variant>**

parent elements **<net-node>**

Table 136: Attributes for NET-NODE-VARIANTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.16 NET-NODES

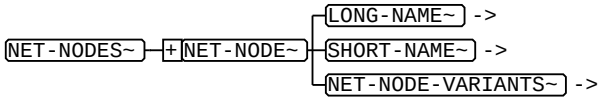


Figure 138: DTD-diagram for NET-NODES

Child elements **<net-node>**

parent elements **<net-node-spec>**

Table 137: Attributes for NET-NODES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.17 NET-OPER-SPEC

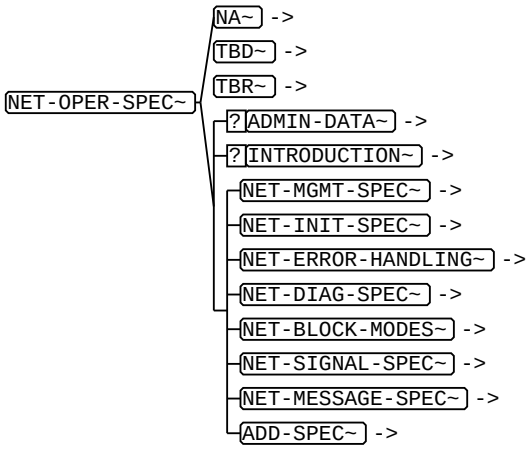


Figure 139: DTD-diagram for NET-OPER-SPEC

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <net-mgmt-spec> <net-init-spec> <net-error-handling> <net-diag-spec> <net-block-modes> <net-signal-spec> <net-message-spec> <add-spec>**

parent elements **<msrnet>**

Table 138: Attributes for NET-OPER-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

14.18 NET-PORT-REF

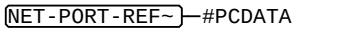


Figure 140: DTD-diagram for NET-PORT-REF

Child elements none

parent elements **<net-node-port>**

Table 139: Attributes for NET-PORT-REF

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

14.19 NET-SIGNAL

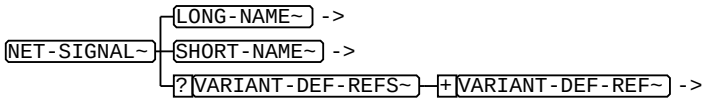


Figure 141: DTD-diagram for NET-SIGNAL

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

parent elements **<net-signals>**

Table 140: Attributes for NET-SIGNAL

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

14.20 NET-SIGNAL-CLASS

Figure 142: DTD-diagram for NET-SIGNAL-CLASS

Child elements none

parent elements **<net-signal-spec-variant>**

Table 141: Attributes for NET-SIGNAL-CLASS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15 NET-SIGNAL-GROUP ... NUMBER

15.1 NET-SIGNAL-GROUP

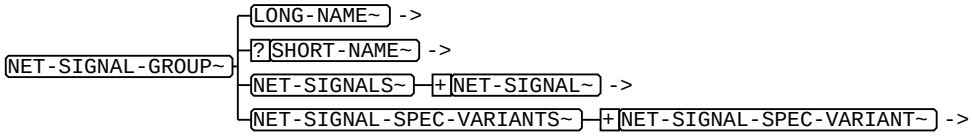


Figure 143: DTD-diagram for NET-SIGNAL-GROUP

Child elements **<long-name> <short-name> <net-signals> <net-signal-spec-variants>**

parent elements **<net-signal-groups>**

Table 142: Attributes for NET-SIGNAL-GROUP

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	NET-SIGNAL-GROUP	
[ID]	id	required		
[S]	cdata	implied		

15.2 NET-SIGNAL-GROUPS

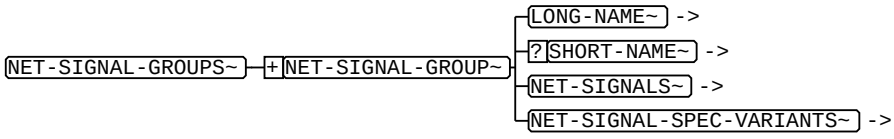


Figure 144: DTD-diagram for NET-SIGNAL-GROUPS

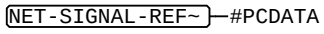
Child elements **<net-signal-group>**

parent elements **<net-signal-spec>**

Table 143: Attributes for NET-SIGNAL-GROUPS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.3 NET-SIGNAL-REF



images/NET-SIGNAL-REF.bmp

Figure 145: DTD-diagram for NET-SIGNAL-REF

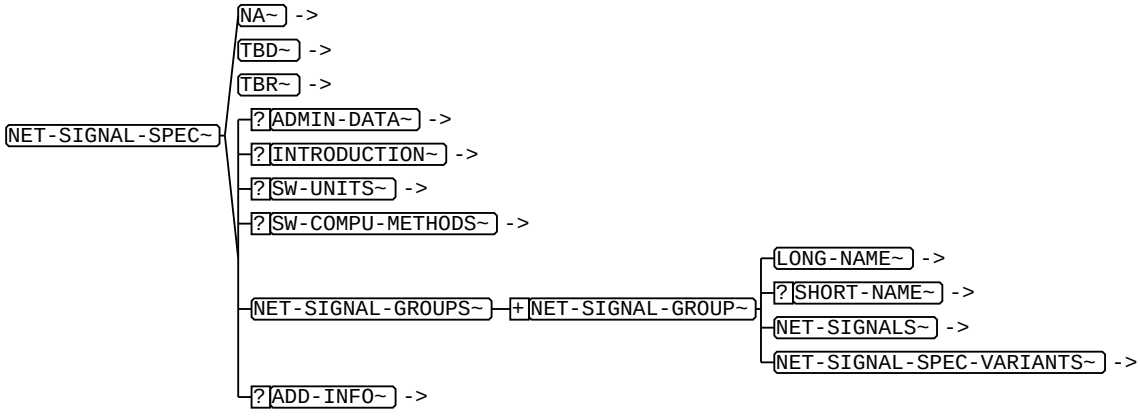
Child elements none

parent elements **<net-message-signal>**

Table 144: Attributes for NET-SIGNAL-REF

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

15.4 NET-SIGNAL-SPEC



images/NET-SIGNAL-SPEC.bmp

Figure 146: DTD-diagram for NET-SIGNAL-SPEC

Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <sw-units> <sw-compu-methods> <net-signal-groups> <add-info>**

parent elements **<net-oper-spec>**

Table 145: Attributes for NET-SIGNAL-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.5 NET-SIGNAL-SPEC-VARIANT

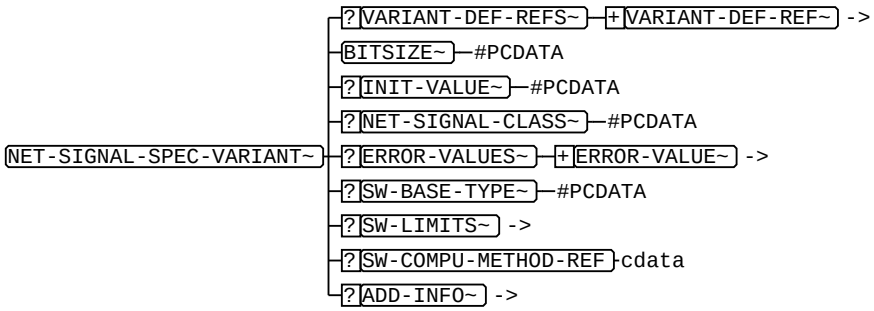


Figure 147: DTD-diagram for NET-SIGNAL-SPEC-VARIANT

Child elements **<variant-def-refs> <bitsize> <init-value> <net-signal-class> <error-values> <sw-base-type> <sw-limits> <sw-compu-method-ref> <add-info>**

parent elements **<net-signal-spec-variants>**

Table 146: Attributes for NET-SIGNAL-SPEC-VARIANT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.6 NET-SIGNAL-SPEC-VARIANTS

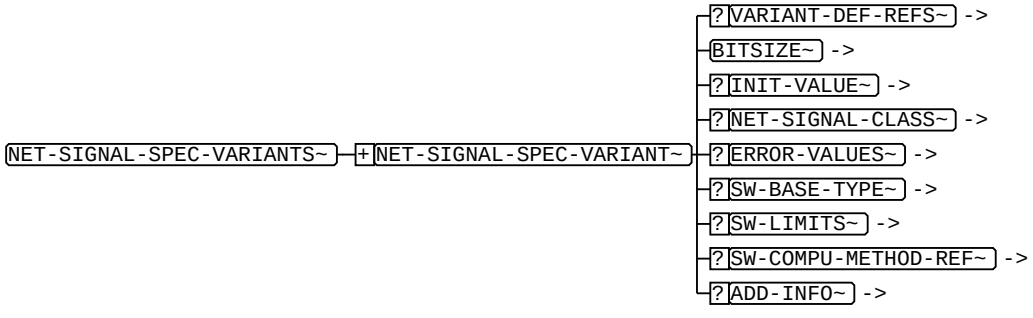


Figure 148: DTD-diagram for NET-SIGNAL-SPEC-VARIANTS

Child elements **<net-signal-spec-variant>**

parent elements **<net-signal-group>**

Table 147: Attributes for NET-SIGNAL-SPEC-VARIANTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.7 NET-SIGNALS

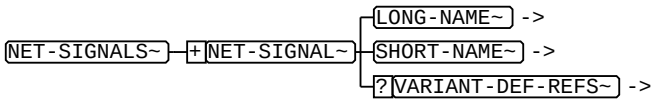


Figure 149: DTD-diagram for NET-SIGNALS

Child elements **<net-signal>**

parent elements **<net-signal-group>**

Table 148: Attributes for NET-SIGNALS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.8 NET-TOPOLOGY-SPEC

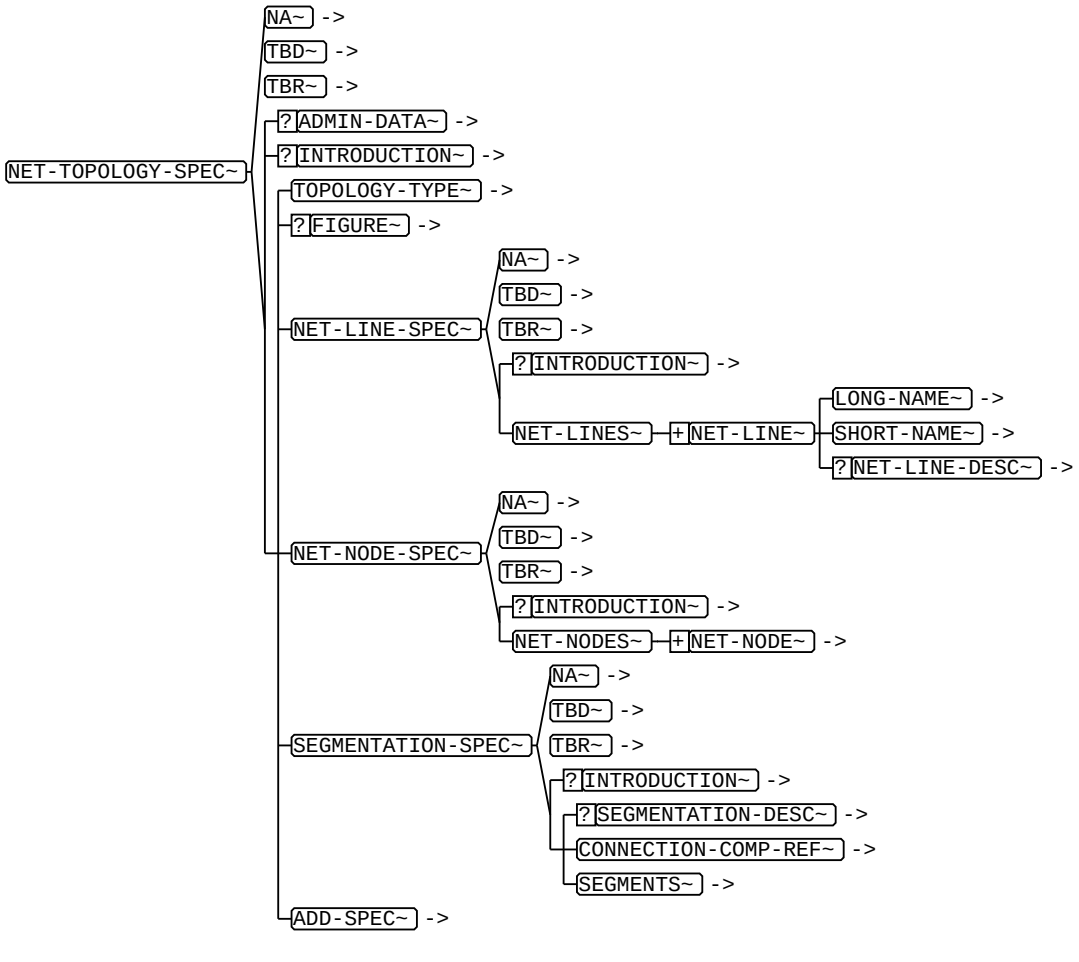


Figure 150: DTD-diagram for NET-TOPOLOGY-SPEC

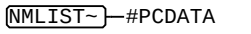
Child elements **<na> <tbd> <tbr> <admin-data> <introduction> <topology-type> <figure> <net-line-spec> <net-node-spec> <segmentation-spec> <add-spec>**

parent elements **<net-architecture>**

Table 149: Attributes for NET-TOPOLOGY-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.9 NMLIST



images/NMLIST.bmp

Figure 151: DTD-diagram for NMLIST

Child elements none

parent elements **<nameloc>**

Table 150: Attributes for NMLIST

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

Description Null

15.10 NODE-TYPE

images/NODE-TYPE.bmp

Figure 152: DTD-diagram for NODE-TYPE

Child elements none

parent elements **<node-variant>**

Table 151: Attributes for NODE-TYPE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.11 NODE-VARIANT

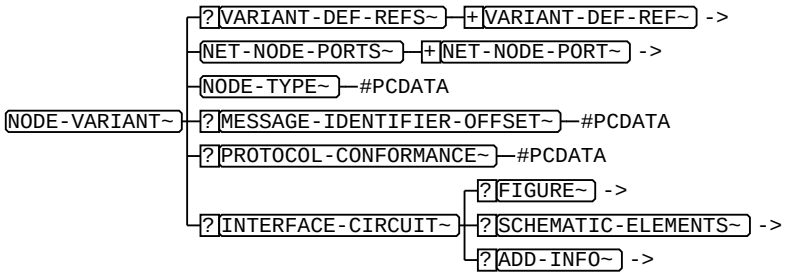


Figure 153: DTD-diagram for NODE-VARIANT

Child elements **<variant-def-refs> <net-node-ports> <node-type> <message-identifier-offset> <protocol-conformance> <interface-circuit>**

parent elements **<net-node-variants>**

Table 152: Attributes for NODE-VARIANT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

15.12 NOTE

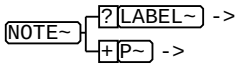


Figure 154: DTD-diagram for NOTE

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

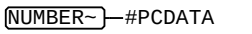
parent elements **<add-info> <chapter> <driver-concept> <entry> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 153: Attributes for NOTE

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

Description Null

15.13 NUMBER



images/NUMBER.bmp

Figure 155: DTD-diagram for NUMBER

Child elements none

parent elements **<xdoc>**

Table 154: Attributes for NUMBER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of a number.

16 OBJECTIVES ... OVERALL-PROJECT

16.1 OBJECTIVES

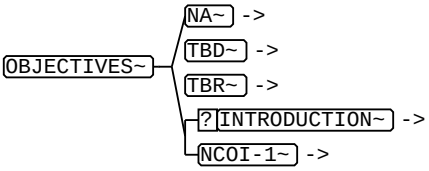


Figure 156: DTD-diagram for OBJECTIVES

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

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

Table 155: Attributes for OBJECTIVES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

16.2 OFFSET

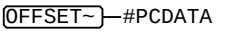


Figure 157: DTD-diagram for OFFSET

Child elements none

parent elements **<multiplexor> <net-message-signal>**

Table 156: Attributes for OFFSET

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description The datapoints are defined by an algorithm for fixed characteristics and maps.
Example for an algorithm: Datapoint[i] = (... shift) * x + offset

Example

```
<sw-axis-shift-offset>
   <sw-variable-ref>var1</sw-variable-ref>
   <max-count>4</max-count>
   <shift>2</shift>
   <offset>3</offset>
<sw-axis-shift-offset></sw-axis-shift-offset>
```

16.3 OVERALL-PROJECT

Figure 158: DTD-diagram for OVERALL-PROJECT

Child elements **<label> <desc>**

parent elements **<project-data>**

Table 157: Attributes for OVERALL-PROJECT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of an overall-project which is assigned to the actual project.

17 P ... PROJECT-DATA

17.1 P

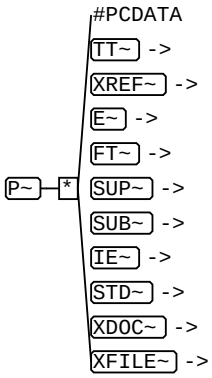


Figure 159: DTD-diagram for P

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

parent elements **<add-info> <chapter> <cond> <def> <driver-concept> <entry> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <note> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 158: Attributes for P

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

Description Paragraph. A paragraph can comprise text and the elements tt (technical text), xref (cross reference), e (text attribute like bold), ft (footnote), sup (superscript), sub (subscript), ie (index entry), std (standard), xdoc (external document), xfile (external file) in any arbitrary, though not hierarchical, order.

Example
```
<sw-function-desc>
   <p>This function describes the <ie>exhaust-gas return</ie>. Refer to <std> ... </std></p
</sw-function-desc>
```

Description Identifies text within a paragraph.

17.2 PARALLEL-DESIGNS

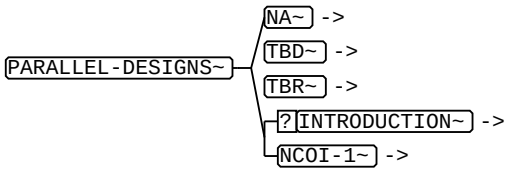


Figure 160: DTD-diagram for PARALLEL-DESIGNS

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

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

Table 159: Attributes for PARALLEL-DESIGNS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

17.3 PART-NUMBER

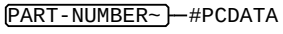


Figure 161: DTD-diagram for PART-NUMBER

Child elements none

parent elements **<connection-comp-1>**

Table 160: Attributes for PART-NUMBER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element defines the number of a part.

17.4 PHASE-RELATIONS

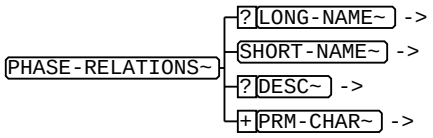


Figure 162: DTD-diagram for PHASE-RELATIONS

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

parent elements **<transmission-prms>**

Table 161: Attributes for PHASE-RELATIONS

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

17.5 PHONE

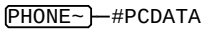


Figure 163: DTD-diagram for PHONE

Child elements none

parent elements **<team-member>**

Table 162: Attributes for PHONE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of a phone number.

17.6 PHYS

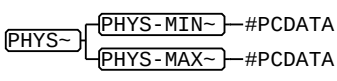


Figure 164: DTD-diagram for PHYS

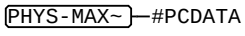
Child elements **<phys-min> <phys-max>**

parent elements **<sw-limits> <sw-limits>**

Table 163: Attributes for PHYS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

17.7 PHYS-MAX



images/PHYS-MAX.bmp

Figure 165: DTD-diagram for PHYS-MAX

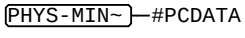
Child elements none

parent elements **<phys>**

Table 164: Attributes for PHYS-MAX

Name	Type	Class	Value	Remark
[S]	cdata	implied		

17.8 PHYS-MIN



images/PHYS-MIN.bmp

Figure 166: DTD-diagram for PHYS-MIN

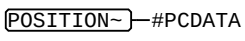
Child elements none

parent elements **<phys>**

Table 165: Attributes for PHYS-MIN

Name	Type	Class	Value	Remark
[S]	cdata	implied		

17.9 POSITION



images/POSITION.bmp

Figure 167: DTD-diagram for POSITION

Child elements none

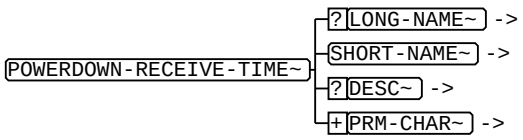
parent elements **<std> <xdoc>**

Table 166: Attributes for POSITION

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

17.10 POWERDOWN-RECEIVE-TIME



images/POWERDOWN-RECEIVE-TIME.bmp

Figure 168: DTD-diagram for POWERDOWN-RECEIVE-TIME

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

parent elements **<transmission-prms>**

Table 167: Attributes for POWERDOWN-RECEIVE-TIME

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

17.11 POWERUP-RECEIVE-TIME

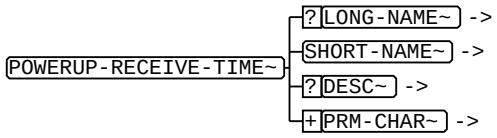


Figure 169: DTD-diagram for POWERUP-RECEIVE-TIME

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

parent elements **<transmission-prms>**

Table 168: Attributes for POWERUP-RECEIVE-TIME

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

17.12 POWERUP-TRANSMIT-TIME

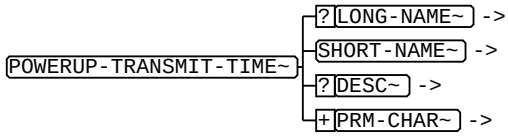


Figure 170: DTD-diagram for POWERUP-TRANSMIT-TIME

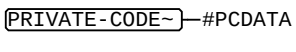
Child elements **<long-name> <short-name> <desc> <prm-char>**

parent elements **<transmission-prms>**

Table 169: Attributes for POWERUP-TRANSMIT-TIME

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

17.13 PRIVATE-CODE



images/PRIVATE-CODE.bmp

Figure 171: DTD-diagram for PRIVATE-CODE

Child elements none

parent elements **<private-codes>**

Table 170: Attributes for PRIVATE-CODE

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

Description

Example
```
<private-codes>
   <private-code> TYPE=”generated_by_ASCET-SD”>$generated_by_ASCET-SD:2.2.0$ </private-code
   <private-code> TYPE=”Implementation xy”>Implementation xy</private-code>
</private-codes>
```

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

17.14 PRIVATE-CODES

images/PRIVATE-CODES.bmp

Figure 172: DTD-diagram for PRIVATE-CODES

Child elements **<private-code>**

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

Table 171: Attributes for PRIVATE-CODES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description

Example
```
<company-doc-infos>
   <private-codes>
   <private-codes>
      <private-code> TYPE=”generated_by_ASCET-SD”>$generated_by_ASCET-SD:2.2.0$ </private-c
```

```
    </private-codes>
</company-doc-infos>
```

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

17.15 PRM

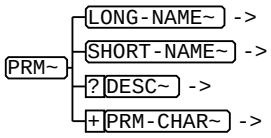


Figure 173: DTD-diagram for PRM

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

parent elements **<connection-comp-prms> <prms> <transmission-prms>**

Table 172: Attributes for PRM

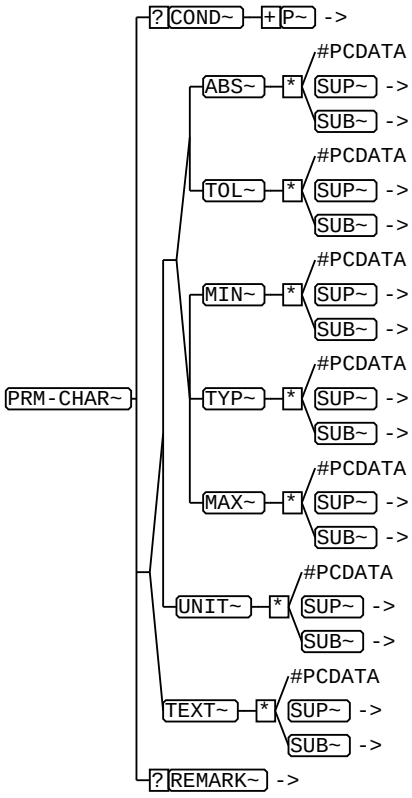
Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	PRM	
[ID]	id	required		
[S]	cdata	implied		

Description A parameter model has been implemented in MSR. There are 2 possibilities given. A parameter can be specified either by defining **<abs>**,**<tol>** or by defining **<min>**, **<typ>** and **<max>**.

Example

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

17.16 PRM-CHAR



images/PRM-CHAR.bmp

Figure 174: DTD-diagram for PRM-CHAR

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

parent elements **<baudrate> <btl-cycles> <cycle-time> <latency-time> <phase-relations> <powerdown-receive-time> <powerup-receive-time> <powerup-transmit-time> <prm> <sample-point> <sample-rate> <segment-length> <sjw> <sync-edge>**

Table 173: Attributes for PRM-CHAR

Name	Type	Class	Value	Remark
[S]	cdata	implied		

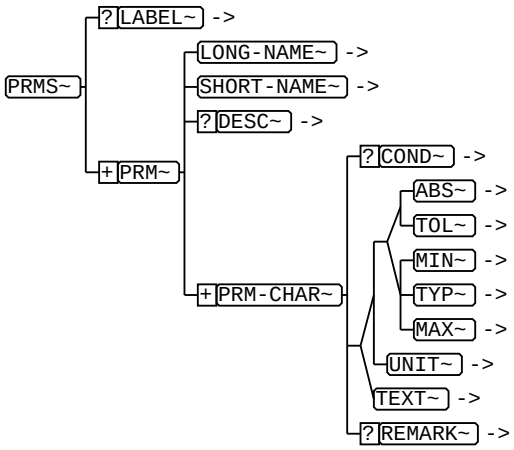
Description Description of the parameter characteristics of a parameter

Example

```
<sw-prm>
   <long-name>long designation</long-name>
   <short-name>short designation</short-name>
   <min>10</min>
   <typ>45</typ>
   <max>90</max>
   <unit>°C</unit>
</sw-prm>
```

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.

17.17 PRMS



images/PRMS.bmp

Figure 175: DTD-diagram for PRMS

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

parent elements **<add-info> <chapter> <driver-concept> <ncoi-1> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <segmentation-desc> <topic-1>**

Table 174: Attributes for PRMS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description List of parameters

Example

Description Groups one or more parameters to a parameter table.

17.18 PROG-CODE

images/PROG-CODE.bmp

Figure 176: DTD-diagram for PROG-CODE

Child elements none

parent elements **<sw-compu-method>**

Table 175: Attributes for PROG-CODE

Name	Type	Class	Value	Remark
[LANG-SUBSET]	names	implied		
[PROG-LANG]	cdata	implied		
[S]	cdata	implied		
[USED-LIBS]	nmtokens	implied		

Description Description of conversion formulae in a programming language notation

Example

17.19 PROJECT

Figure 177: DTD-diagram for PROJECT

Child elements **<label> <desc> <companies>**

parent elements **<project-data>**

Table 176: Attributes for PROJECT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Information regarding a project.

Example

Description This element defines the project with all companies.

17.20 PROJECT-DATA

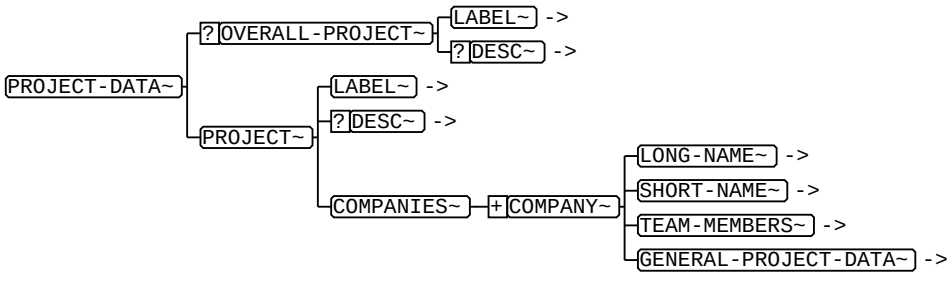


Figure 178: DTD-diagram for PROJECT-DATA

Child elements **<overall-project> <project>**

parent elements **<msrnet>**

Table 177: Attributes for PROJECT-DATA

Name	Type	Class	Value	Remark
[S]	cdata	implied		

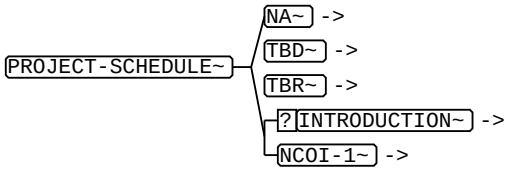
Description Project data

Example

Description For project syncronisation between manufactorer and supplier it is necessary, to interchange some project data. Normally are this data filled from the PDM system of the company.

18 PROJECT-SCHEDULE ... PURCHASING-COND

18.1 PROJECT-SCHEDULE



images/PROJECT-SCHEDULE.bmp

Figure 179: DTD-diagram for PROJECT-SCHEDULE

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

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

Table 178: Attributes for PROJECT-SCHEDULE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element contains a project schedule.

18.2 PROTOCOL-CONFORMANCE

images/PROTOCOL-CONFORMANCE.bmp

Figure 180: DTD-diagram for PROTOCOL-CONFORMANCE

Child elements none

parent elements **<node-variant>**

Table 179: Attributes for PROTOCOL-CONFORMANCE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

18.3 PROTOCOLS

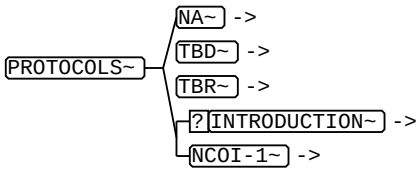


Figure 181: DTD-diagram for PROTOCOLS

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

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

Table 180: Attributes for PROTOCOLS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

18.4 PUBLISHER

Figure 182: DTD-diagram for PUBLISHER

Child elements none

parent elements **<xdoc>**

Table 181: Attributes for PUBLISHER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of the publisher of the external document.

18.5 PURCHASING-COND

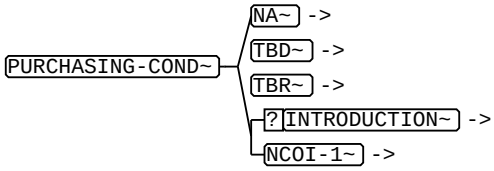


Figure 183: DTD-diagram for PURCHASING-COND

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

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

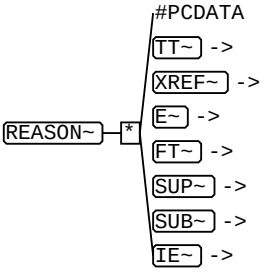
Table 182: Attributes for PURCHASING-COND

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element groups existing purchasing conditions.

19 REASON ... ROW

19.1 REASON



images/REASON.bmp

Figure 184: DTD-diagram for REASON

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

parent elements **<modification>**

Table 183: Attributes for REASON

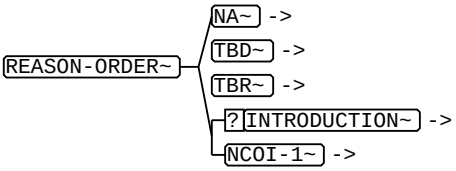
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description

Example

Description Reason of the change.

19.2 REASON-ORDER



images/REASON-ORDER.bmp

Figure 185: DTD-diagram for REASON-ORDER

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

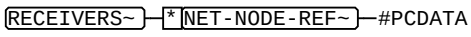
parent elements **<general-project-data>**

Table 184: Attributes for REASON-ORDER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Reason of the order.

19.3 RECEIVERS



images/RECEIVERS.bmp

Figure 186: DTD-diagram for RECEIVERS

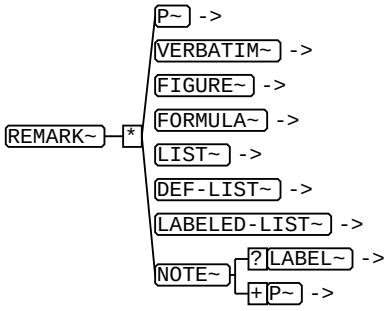
Child elements **<net-node-ref>**

parent elements **<net-message-signal>**

Table 185: Attributes for RECEIVERS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

19.4 REMARK



images/REMARK.bmp

Figure 187: DTD-diagram for REMARK

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

parent elements **<prm-char>**

Table 186: Attributes for REMARK

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Defines a remark.

19.5 REVISION-LABEL

images/REVISION-LABEL.bmp

Figure 188: DTD-diagram for REVISION-LABEL

Child elements none

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

Table 187: Attributes for REVISION-LABEL

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Revision

Example
```
<company-revision-info>
    <company-ref></company-ref>
    <revision-label>10.4</revision-label>
    <state></state>
</company-revision-info>
```

Description Label of a revision.

19.6 ROLE

images/ROLE.bmp

Figure 189: DTD-diagram for ROLE

Child elements none

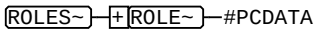
parent elements **<roles>**

Table 188: Attributes for ROLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

19.7 ROLES



images/ROLES.bmp

Figure 190: DTD-diagram for ROLES

Child elements **<role>**

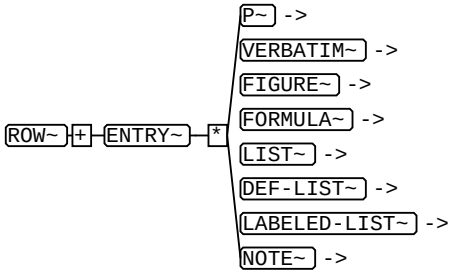
parent elements **<team-member>**

Table 189: Attributes for ROLES

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

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

19.8 ROW



images/ROW.bmp

Figure 191: DTD-diagram for ROW

Child elements **<entry>**

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

Table 190: Attributes for ROW

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

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

20 SAMPLE ... SJW

20.1 SAMPLE

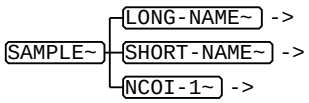


Figure 192: DTD-diagram for SAMPLE

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

parent elements **<samples>**

Table 191: 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		

Description Definition of a sample.

20.2 SAMPLE-POINT

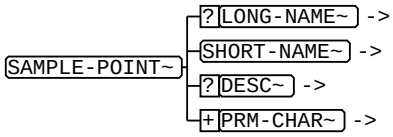


Figure 193: DTD-diagram for SAMPLE-POINT

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

parent elements **<net-interface-prms>**

Table 192: Attributes for SAMPLE-POINT

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

20.3 SAMPLE-RATE

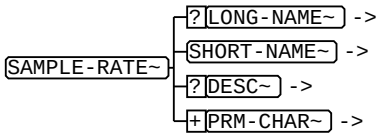


Figure 194: DTD-diagram for SAMPLE-RATE

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

parent elements **<net-interface-prms>**

Table 193: Attributes for SAMPLE-RATE

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

20.4 SAMPLE-REF

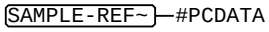


Figure 195: DTD-diagram for SAMPLE-REF

Child elements none

parent elements **<schedule>**

Table 194: Attributes for SAMPLE-REF

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

Description Reference to a sample.

20.5 SAMPLE-SPEC

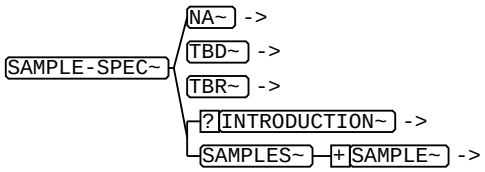


Figure 196: DTD-diagram for SAMPLE-SPEC

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

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

Table 195: Attributes for SAMPLE-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

20.6 SAMPLES

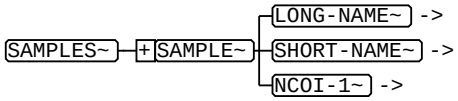


Figure 197: DTD-diagram for SAMPLES

Child elements **<sample>**

parent elements **<sample-spec>**

Table 196: Attributes for SAMPLES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of a samples.

20.7 SCHEDULE

images/SCHEDULE.bmp

Figure 198: DTD-diagram for SCHEDULE

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

parent elements **<tbd>**

Table 197: Attributes for SCHEDULE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

20.8 SCHEMATIC-ELEMENT

images/SCHEMATIC-ELEMENT.bmp

Figure 199: DTD-diagram for SCHEMATIC-ELEMENT

Child elements **<label> <v>**

parent elements **<schematic-elements>**

Table 198: Attributes for SCHEMATIC-ELEMENT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Specifies a schematic element.

20.9 SCHEMATIC-ELEMENTS

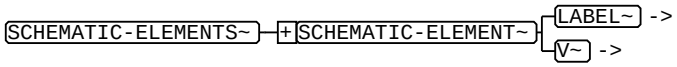


Figure 200: DTD-diagram for SCHEMATIC-ELEMENTS

Child elements **<schematic-element>**

parent elements **<interface-circuit>**

Table 199: Attributes for SCHEMATIC-ELEMENTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Contains one or more schematic elements.

20.10 SEGMENT

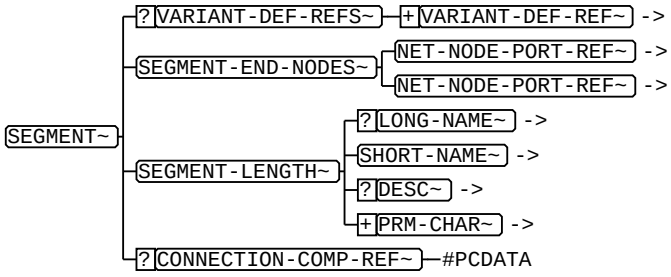


Figure 201: DTD-diagram for SEGMENT

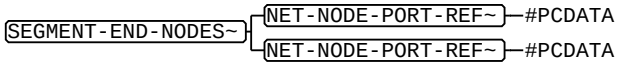
Child elements **<variant-def-refs> <segment-end-nodes> <segment-length> <connection-comp-ref>**

parent elements **<segments>**

Table 200: Attributes for SEGMENT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.11 SEGMENT-END-NODES



images/SEGMENT-END-NODES.bmp

Figure 202: DTD-diagram for SEGMENT-END-NODES

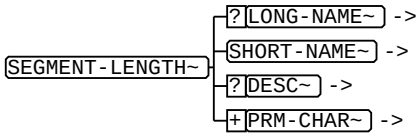
Child elements **<net-node-port-ref> <net-node-port-ref>**

parent elements ****

Table 201: Attributes for SEGMENT-END-NODES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.12 SEGMENT-LENGTH



images/SEGMENT-LENGTH.bmp

Figure 203: DTD-diagram for SEGMENT-LENGTH

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

parent elements ****

Table 202: Attributes for SEGMENT-LENGTH

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

20.13 SEGMENTATION-DESC

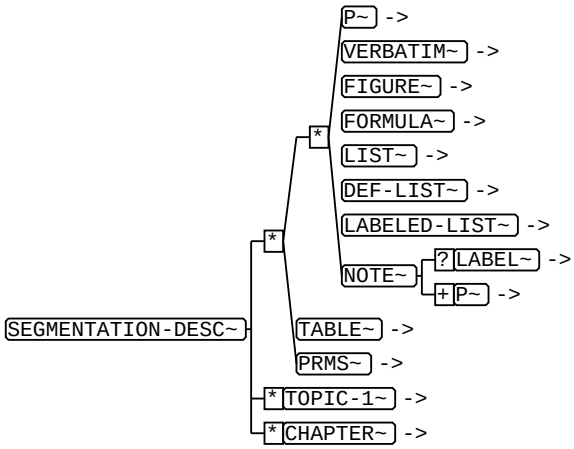


Figure 204: DTD-diagram for SEGMENTATION-DESC

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

parent elements **<segmentation-spec>**

Table 203: Attributes for SEGMENTATION-DESC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.14 SEGMENTATION-SPEC

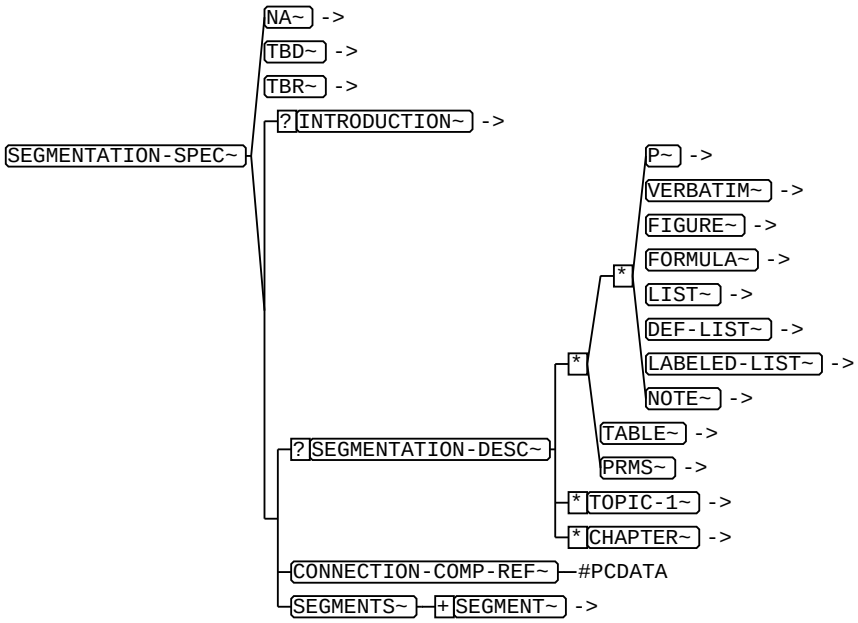


Figure 205: DTD-diagram for SEGMENTATION-SPEC

Child elements **<na> <tbd> <tbr> <introduction> <segmentation-desc> <connection-comp-ref> <segments>**

parent elements **<net-topology-spec>**

Table 204: Attributes for SEGMENTATION-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.15 SEGMENTS

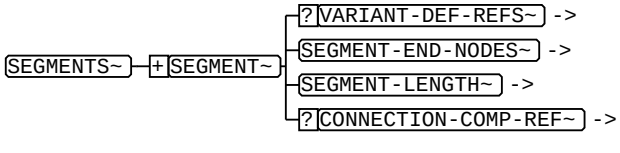


Figure 206: DTD-diagram for SEGMENTS

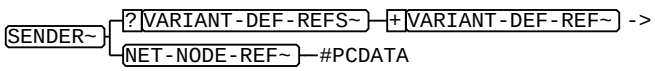
Child elements ****

parent elements **<segmentation-spec>**

Table 205: Attributes for SEGMENTS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.16 SENDER



images/SENDER.bmp

Figure 207: DTD-diagram for SENDER

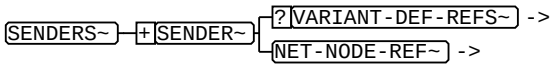
Child elements **<variant-def-refs> <net-node-ref>**

parent elements **<senders>**

Table 206: Attributes for SENDER

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.17 SENDERS



images/SENDERS.bmp

Figure 208: DTD-diagram for SENDERS

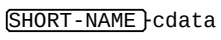
Child elements **<sender>**

parent elements **<calc-net-message-identifiers> <net-message-identifier>**

Table 207: Attributes for SENDERS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

20.18 SHORT-NAME



images/SHORT-NAME.bmp

Figure 209: DTD-diagram for SHORT-NAME

Child elements none

parent elements **<baudrate> <btl-cycles> <chapter> <company> <connection-comp-1> <cycle-time> <def-item> <figure> <formula> <latency-time> <msrnet> <nameloc> <net-line> <net-message> <net-message-set> <net-node> <net-node-port> <net-signal> <net-signal-group> <phase-relations> <powerdown-receive-time> <powerup-receive-time> <powerup-transmit-time> <prm> <sample> <sample-point> <sample-rate> <segment-length> <sjw> <std> <sw-compu-method> <sw-unit> <sync-edge> <table> <team-member> <topic-1> <topic-2> <variant-char> <variant-def> <xdoc> <xfile>**

Table 208: Attributes for SHORT-NAME

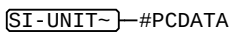
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Short designation, e.g. ”TMOT”. The **<short-name>** has an identifying character, in particular for outside references (e.g. *ASAP*, *ASCET*).

Example

Description Identifier or label of a parameter.

20.19 SI-UNIT



images/SI-UNIT.bmp

Figure 210: DTD-diagram for SI-UNIT

Child elements none

parent elements **<sw-unit>**

Table 209: Attributes for SI-UNIT

Name	Type	Class	Value	Remark
[AMOUNT-OF-SUBSTANCE-EXPO]	cdata	implied		
[ELECTRIC-CURRENT-EXPO]	cdata	implied		
[LENGTH-EXPO]	cdata	implied		
[LUMINOUS-INTENSITY-EXPO]	cdata	implied		
[MASS-EXPO]	cdata	implied		
[S]	cdata	implied		
[THERMODYNAMIC-TEMPERATURE-EXPO]	cdata	implied		
[TIME-EXPO]	cdata	implied		

Description There are SI units of measure for the units of measure. STEP (ISO/DIS 10303-41. S96ff) is supported with regard to SI units by seven basic units (length, mass, time, electric_current, thermodynamic_temperature, amount_of_substance, luminous_intensity). These basic units are realized by means of attributes.

Example
```
<sw-unit>
      <long-name>Meter per second</long-name>
      <short-name>mps</short-name>
      <si-unit length-expo = ″1″ time-expo = ″-1″></si-unit>
          <sw-unit-display></sw-unit-display>
   </sw-unit>
```

20.20 SJW

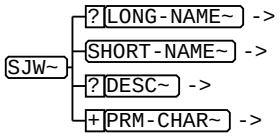


Figure 211: DTD-diagram for SJW

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

parent elements **<net-interface-prms>**

Table 210: Attributes for SJW

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

21 SPANSPEC ... SW-UNIT-DISPLAY

21.1 SPANSPEC

images/SPANSPEC.bmp

Figure 212: DTD-diagram for SPANSPEC

Child elements none

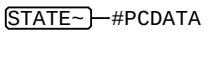
parent elements **<tgroup>**

Table 211: 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		

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>.

21.2 STATE



images/STATE.bmp

Figure 213: DTD-diagram for STATE

Child elements none

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

Table 212: Attributes for STATE

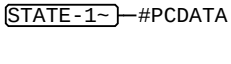
Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description

Example

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

21.3 STATE-1



images/STATE-1.bmp

Figure 214: DTD-diagram for STATE-1

Child elements none

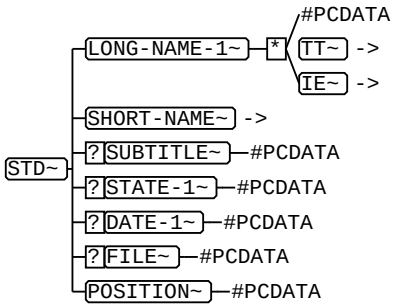
parent elements **<std> <xdoc>**

Table 213: Attributes for STATE-1

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of a state (multilingual).

21.4 STD



images/STD.bmp

Figure 215: DTD-diagram for STD

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

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

Table 214: 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		

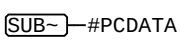
Description

Example

```
<std>
   <long-name-1>ISO/DIS 10303-41 units of measure</long-name-1>
   <short-name>ISO/DIS 10303-41</short-name>
   <subtitle>SI units of measure</subtitle>
   <state-1></state-1>
   <date-1></date-1>
   <file>ISO10303-41.std</file>
   <position>S96ff</position>
</std>
```

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

21.5 SUB



images/SUB.bmp

Figure 216: DTD-diagram for SUB

Child elements none

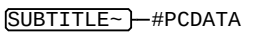
parent elements **<abs> <change> <desc> <ie> <indent-sample> <item-label> <max> <min> <p> <reason> <sw-unit-display> <tbr> <text> <tol> <typ> <unit>**

Table 215: Attributes for SUB

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

21.6 SUBTITLE



images/SUBTITLE.bmp

Figure 217: DTD-diagram for SUBTITLE

Child elements none

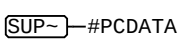
parent elements **<std>**

Table 216: Attributes for SUBTITLE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element defines a subtitle of the standard.

21.7 SUP



images/SUP.bmp

Figure 218: DTD-diagram for SUP

Child elements none

parent elements **<abs> <change> <desc> <ie> <indent-sample> <item-label> <max> <min> <p> <reason> <sw-unit-display> <tbr> <text> <tol> <typ> <unit>**

Table 217: Attributes for SUP

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

21.8 SW-ASAP-6-PRM-METHOD

images/SW-ASAP-6-PRM-METHOD.bmp

Figure 219: DTD-diagram for SW-ASAP-6-PRM-METHOD

Child elements none

parent elements **<sw-compu-method>**

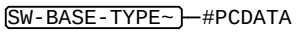
Table 218: Attributes for SW-ASAP-6-PRM-METHOD

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description 6-parameter formula corresponding to ASAP (polynomial presentation. Presentation of the elements of the formula separated by white spaces. formula: int = $(a \times x^2 + b \times x^1 + c) / (d \times x^2 + e \times x^1 + f)$

Example
```
<sw-asap-6-prm-method>0 1 0 0 0 0.698 </sw-asap-6-prm-method>
```

21.9 SW-BASE-TYPE



images/SW-BASE-TYPE.bmp

Figure 220: DTD-diagram for SW-BASE-TYPE

Child elements none

parent elements **<net-signal-spec-variant>**

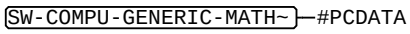
Table 219: Attributes for SW-BASE-TYPE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Base type of SW variable (e.g. char, integer).

Example
```
<sw-variable-implementation>
   <sw-base-type>UBIT</sw-base-type>
</sw-variable-implementation>
```

21.10 SW-COMPU-GENERIC-MATH



images/SW-COMPU-GENERIC-MATH.bmp

Figure 221: DTD-diagram for SW-COMPU-GENERIC-MATH

Child elements none

parent elements **<sw-compu-method>**

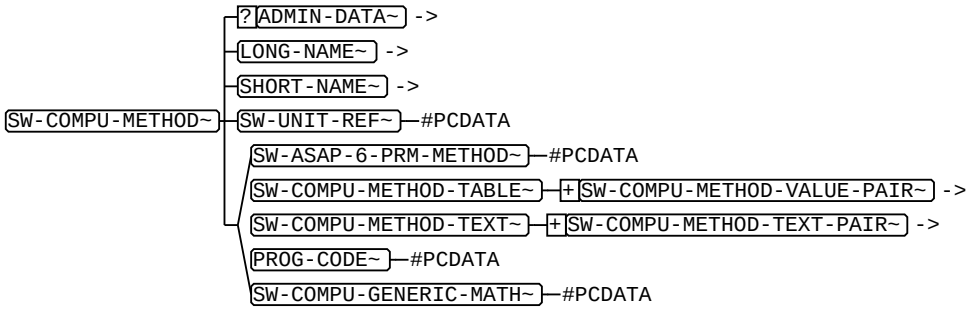
Table 220: Attributes for SW-COMPU-GENERIC-MATH

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description The conversion formula is described by a general mathematical expression.

Example

21.11 SW-COMPU-METHOD



images/SW-COMPU-METHOD.bmp

Figure 222: DTD-diagram for SW-COMPU-METHOD

Child elements **<admin-data> <long-name> <short-name> <sw-unit-ref> <sw-asap-6-prm-method> <sw-compu-method-table> <sw-compu-method-text> <prog-code> <sw-compu-generic-math>**

parent elements **<sw-compu-methods>**

Table 221: Attributes for SW-COMPU-METHOD

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	SW-COMPU-METHOD	
[ID]	id	required		
[S]	cdata	implied		

Description Conversion formula. Computing procedure according to which a control-unit-internal variable can be converted into its physical value. The conversion formula must be reversible.

Example

21.12 SW-COMPU-METHOD-REF

images/SW-COMPU-METHOD-REF.bmp

Figure 223: DTD-diagram for SW-COMPU-METHOD-REF

Child elements none

parent elements **<net-signal-spec-variant>**

Table 222: Attributes for SW-COMPU-METHOD-REF

Name	Type	Class	Value	Remark
[HYNAMES]	names	fixed	LINKEND SW-COMPU-METHOD	
[HYTIME]	name	fixed	CLINK	
[S]	cdata	implied		
[SW-COMPU-METHOD]	idref	required		

Description Reference to a conversion formula

Example

21.13 SW-COMPU-METHOD-TABLE

Figure 224: DTD-diagram for SW-COMPU-METHOD-TABLE

Child elements **<sw-compu-method-value-pair>**

parent elements **<sw-compu-method>**

Table 223: Attributes for SW-COMPU-METHOD-TABLE

Name	Type	Class	Value	Remark
[INTERPOLATION-STYLE]	nmtkgrp	default	INTERPOLATION INTERPOLA-TION NO-INTERPOLATION DISCRETE	
[S]	cdata	implied		

Description With this form for the conversion formula, the relationship between internal and physical presentation is given using a table of for the internal-physical pairs of values. An attribute *interpolation-style* is given that can take the values *interpolation* (default) and *discrete*.

Example

21.14 SW-COMPU-METHOD-TEXT

Figure 225: DTD-diagram for SW-COMPU-METHOD-TEXT

Child elements **<sw-compu-method-text-pair>**

parent elements **<sw-compu-method>**

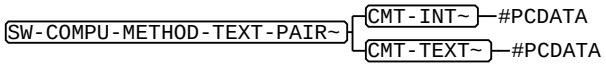
Table 224: Attributes for SW-COMPU-METHOD-TEXT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description The conversion formula is described in text form. Unlike the other types of conversions, the physical side does not constitute a number but rather a text. Applications are conceivable for switches (”on”/”off”) or for country identification (”D”, ”F”, ”US”).

Example
```
<sw-compu-method-text>
   <sw-compu-method-text-pair>
      <cmt-int>0</cmt-int>
      <cmt-text>Heck</cmt-text>
   </cmt-compu-method-text-pair>
   <sw-compu-method-text-pair>
      <cmt-int>16</cmt-int>
      <cmt-text>16</cmt-text>
   </cmt-compu-method-text-pair>
</sw-compu-method-text>
```

21.15 SW-COMPU-METHOD-TEXT-PAIR



images/SW-COMPU-METHOD-TEXT-PAIR.bmp

Figure 226: DTD-diagram for SW-COMPU-METHOD-TEXT-PAIR

Child elements **<cmt-int> <cmt-text>**

parent elements **<sw-compu-method-text>**

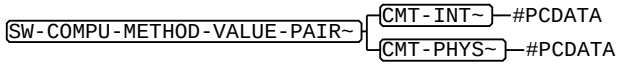
Table 225: Attributes for SW-COMPU-METHOD-TEXT-PAIR

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Includes an internal and a text-form value for text-type conversion formulae.

Example
```
<sw-compu-method-text-pair>
   <cmt-int>0</cmt-int>
   <cmt-text>Heck</cmt-text>
</cmt-compu-method-text-pair>
```

21.16 SW-COMPU-METHOD-VALUE-PAIR



images/SW-COMPU-METHOD-VALUE-PAIR.bmp

Figure 227: DTD-diagram for SW-COMPU-METHOD-VALUE-PAIR

Child elements **<cmt-int> <cmt-phys>**

parent elements **<sw-compu-method-table>**

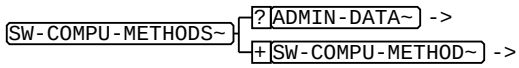
Table 226: Attributes for SW-COMPU-METHOD-VALUE-PAIR

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Includes an internal and a physical value for tabular types of conversion formulae.

Example

21.17 SW-COMPU-METHODS



images/SW-COMPU-METHODS.bmp

Figure 228: DTD-diagram for SW-COMPU-METHODS

Child elements **<admin-data> <sw-compu-method>**

parent elements **<net-signal-spec>**

Table 227: Attributes for SW-COMPU-METHODS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description List of conversion formulae.

Example

21.18 SW-LIMITS

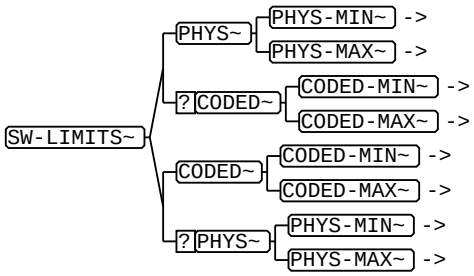


Figure 229: DTD-diagram for SW-LIMITS

Child elements **<phys> <coded> <coded> <phys>**

parent elements **<net-signal-spec-variant>**

Table 228: Attributes for SW-LIMITS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Minimum and maximum values for the physical and the control-unit-internal values are given here.

Example

```
<sw-variable-implementation>
   <sw-base-type>UBYTE</sw-base-type>
   <sw-limits>
      <phys>
         <phys-min>40.000000</phys-min>
         <phys-max>4000.000000</phys-max>
      </phys>
   </sw-limits>
      ...
</sw-variable-implementation>
```

21.19 SW-UNIT

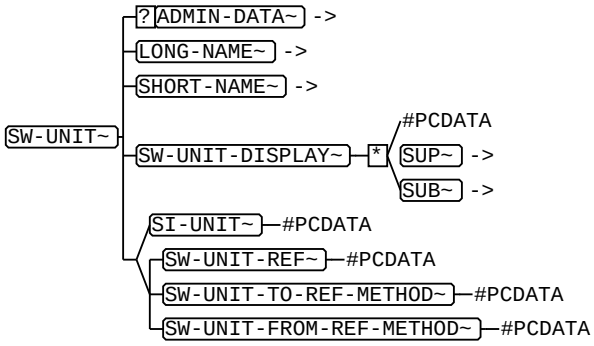


Figure 230: DTD-diagram for SW-UNIT

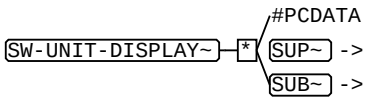
Child elements **<admin-data> <long-name> <short-name> <sw-unit-display> <si-unit> <sw-unit-ref> <sw-unit-to-ref-method> <sw-unit-from-ref-method>**

parent elements **<sw-units>**

Table 229: Attributes for SW-UNIT

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

21.20 SW-UNIT-DISPLAY



images/SW-UNIT-DISPLAY.bmp

Figure 231: DTD-diagram for SW-UNIT-DISPLAY

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

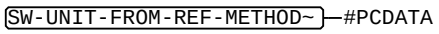
parent elements **<sw-unit>**

Table 230: Attributes for SW-UNIT-DISPLAY

Name	Type	Class	Value	Remark
[S]	cdata	implied		

22 SW-UNIT-FROM-REF-METHOD ... SYSTEM-OVERVIEW

22.1 SW-UNIT-FROM-REF-METHOD



images/SW-UNIT-FROM-REF-METHOD.bmp

Figure 232: DTD-diagram for SW-UNIT-FROM-REF-METHOD

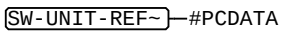
Child elements none

parent elements **<sw-unit>**

Table 231: Attributes for SW-UNIT-FROM-REF-METHOD

Name	Type	Class	Value	Remark
[S]	cdata	implied		

22.2 SW-UNIT-REF



images/SW-UNIT-REF.bmp

Figure 233: DTD-diagram for SW-UNIT-REF

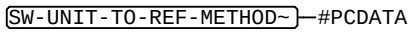
Child elements none

parent elements **<sw-compu-method> <sw-unit>**

Table 232: Attributes for SW-UNIT-REF

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

22.3 SW-UNIT-TO-REF-METHOD



images/SW-UNIT-TO-REF-METHOD.bmp

Figure 234: DTD-diagram for SW-UNIT-TO-REF-METHOD

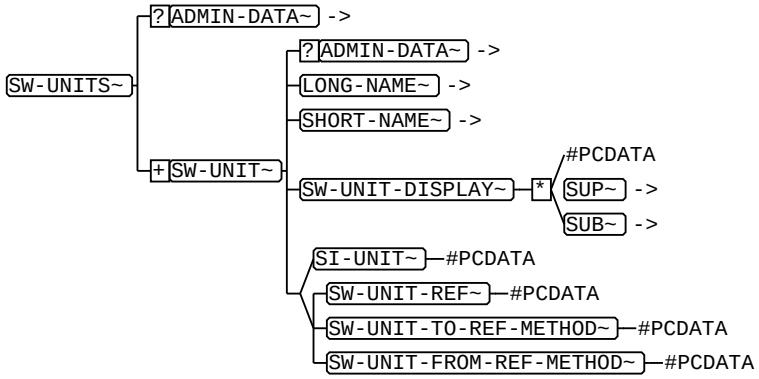
Child elements none

parent elements **<sw-unit>**

Table 233: Attributes for SW-UNIT-TO-REF-METHOD

Name	Type	Class	Value	Remark
[S]	cdata	implied		

22.4 SW-UNITS



images/SW-UNITS.bmp

Figure 235: DTD-diagram for SW-UNITS

Child elements **<admin-data> <sw-unit>**

parent elements **<net-signal-spec>**

Table 234: Attributes for SW-UNITS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

22.5 SYNC-EDGE

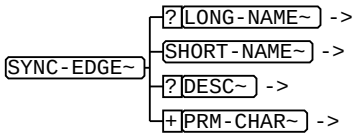


Figure 236: DTD-diagram for SYNC-EDGE

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

parent elements **<net-interface-prms>**

Table 235: Attributes for SYNC-EDGE

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

22.6 SYSTEM-OVERVIEW

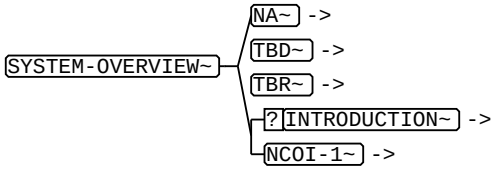


Figure 237: DTD-diagram for SYSTEM-OVERVIEW

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

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

Table 236: Attributes for SYSTEM-OVERVIEW

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

23 TABLE ... TT

23.1 TABLE

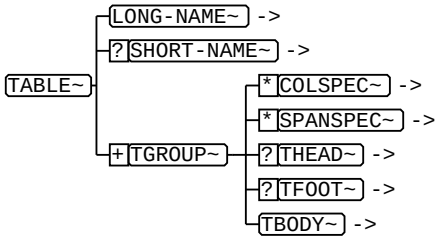


Figure 238: DTD-diagram for TABLE

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

parent elements **<add-info> <chapter> <driver-concept> <introduction> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <segmentation-desc> <topic-1> <topic-2>**

Table 237: 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		
[TABSTYLE]	nmtoken	implied		
[TOCENTRY]	number	default	1	

Description Identifies a table.

23.2 TBD

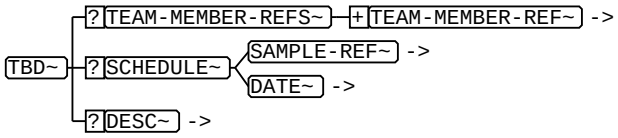


Figure 239: DTD-diagram for TBD

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

parent elements **<acceptance-cond> <add-spec> <connection-comp-spec-1> <demarcation-other-projects> <dir-hand-over-doc-data> <general-net-spec> <general-project-data> <integration-capability> <net-architecture> <net-block-modes> <net-diag-spec> <net-error-handling> <net-init-spec> <net-interface-spec> <net-line-spec> <net-message-spec> <net-mgmt-spec> <net-node-spec> <net-oper-spec> <net-signal-spec> <net-topology-spec> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <segmentation-spec> <system-overview> <variant-spec>**

Table 238: Attributes for TBD

Name	Type	Class	Value	Remark
[S]	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.

23.3 TBODY

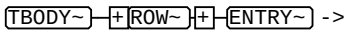


Figure 240: DTD-diagram for TBODY

Child elements **<row>**

parent elements **<tgroup>**

Table 239: Attributes for TBODY

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Table 239 (Cont.): Attributes for TBODY

Name	Type	Class	Value	Remark
[VALIGN]	nmtkgrp	default	TOP TOP MIDDLE BOT-TOM	

Description Defines the table body.

23.4 TBR

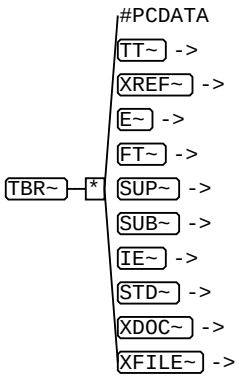


Figure 241: DTD-diagram for TBR

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

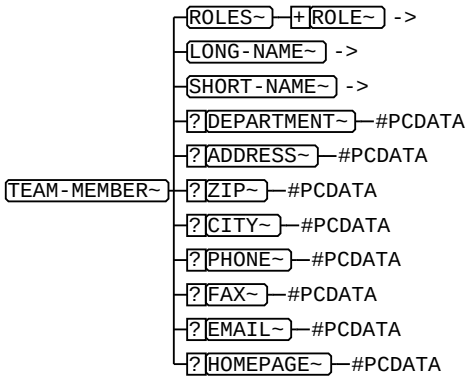
parent elements **<acceptance-cond> <add-spec> <connection-comp-spec-1> <demarcation-other-projects> <dir-hand-over-doc-data> <general-net-spec> <general-project-data> <integration-capability> <net-architecture> <net-block-modes> <net-diag-spec> <net-error-handling> <net-init-spec> <net-interface-spec> <net-line-spec> <net-message-spec> <net-mgmt-spec> <net-node-spec> <net-oper-spec> <net-signal-spec> <net-topology-spec> <objectives> <parallel-designs> <project-schedule> <protocols> <purchasing-cond> <reason-order> <sample-spec> <segmentation-spec> <system-overview> <variant-spec>**

Table 240: Attributes for TBR

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

23.5 TEAM-MEMBER



images/TEAM-MEMBER.bmp

Figure 242: DTD-diagram for TEAM-MEMBER

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

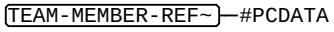
parent elements **<team-members>**

Table 241: Attributes for TEAM-MEMBER

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

Description Definition of a team member.

23.6 TEAM-MEMBER-REF



images/TEAM-MEMBER-REF.bmp

Figure 243: DTD-diagram for TEAM-MEMBER-REF

Child elements none

parent elements **<doc-revision> <team-member-refs>**

Table 242: Attributes for TEAM-MEMBER-REF

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

Description Reference to an team member.

23.7 TEAM-MEMBER-REFS

images/TEAM-MEMBER-REFS.bmp

Figure 244: DTD-diagram for TEAM-MEMBER-REFS

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

parent elements **<tbd>**

Table 243: Attributes for TEAM-MEMBER-REFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description List of references to team member.

23.8 TEAM-MEMBERS

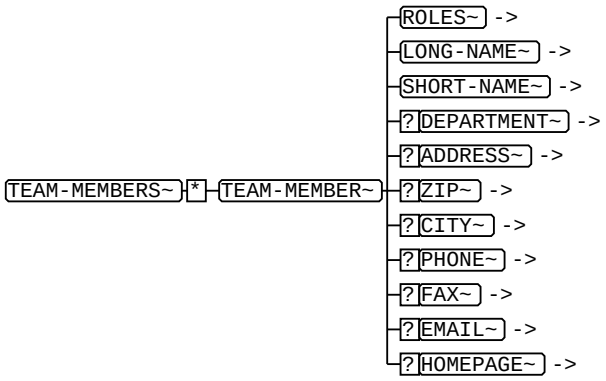


Figure 245: DTD-diagram for TEAM-MEMBERS

Child elements **<team-member>**

parent elements **<company>**

Table 244: Attributes for TEAM-MEMBERS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

23.9 TEX-MATH

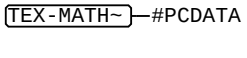


Figure 246: DTD-diagram for TEX-MATH

Child elements none

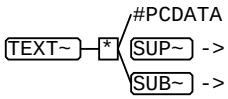
parent elements **<formula>**

Table 245: Attributes for TEX-MATH

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Describes a TeX (LaTeX) formular

23.10 TEXT



images/TEXT.bmp

Figure 247: DTD-diagram for TEXT

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

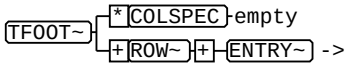
parent elements **<prm-char>**

Table 246: Attributes for TEXT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of text.

23.11 TFOOT



images/TFOOT.bmp

Figure 248: DTD-diagram for TFOOT

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

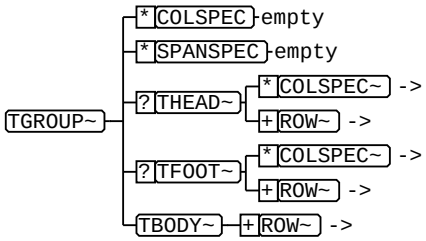
parent elements **<tgroup>**

Table 247: Attributes for TFOOT

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

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.

23.12 TGROUP



images/TGROUP.bmp

Figure 249: DTD-diagram for TGROUP

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

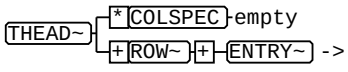
parent elements **<table>**

Table 248: Attributes for TGROUP

Name	Type	Class	Value	Remark
[ALIGN]	nmtkgrp	default	LEFT LEFT RIGHT CEN-TER JUSTIFY CHAR	
[CHAR]	cdata	default		
[CHAROFF]	nutoken	default	50	
[COLS]	number	required		
[COLSEP]	number	implied		
[ROWSEP]	number	implied		
[S]	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>.

23.13 THEAD



images/THEAD.bmp

Figure 250: DTD-diagram for THEAD

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

parent elements **<tgroup>**

Table 249: 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>.

23.14 TOL

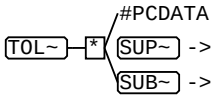


Figure 251: DTD-diagram for TOL

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

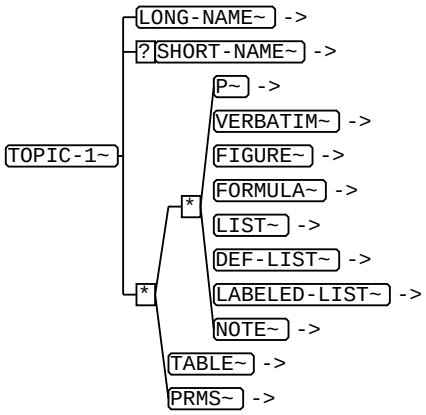
parent elements **<prm-char>**

Table 250: Attributes for TOL

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

23.15 TOPIC-1



images/TOPIC-1.bmp

Figure 252: DTD-diagram for TOPIC-1

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

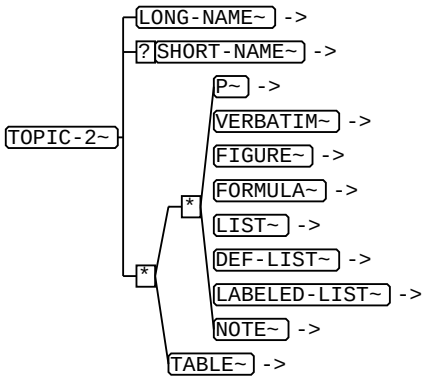
parent elements **<add-info> <chapter> <driver-concept> <ncoi-1> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <segmentation-desc>**

Table 251: 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		

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

23.16 TOPIC-2



images/TOPIC-2.bmp

Figure 253: DTD-diagram for TOPIC-2

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

parent elements **<introduction> <ncoi-3>**

Table 252: 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		

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

23.17 TOPOLOGY-TYPE

images/TOPOLOGY-TYPE.bmp

Figure 254: DTD-diagram for TOPOLOGY-TYPE

Child elements none

parent elements **<net-topology-spec>**

Table 253: Attributes for TOPOLOGY-TYPE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

23.18 TRANSMISSION-PRMS

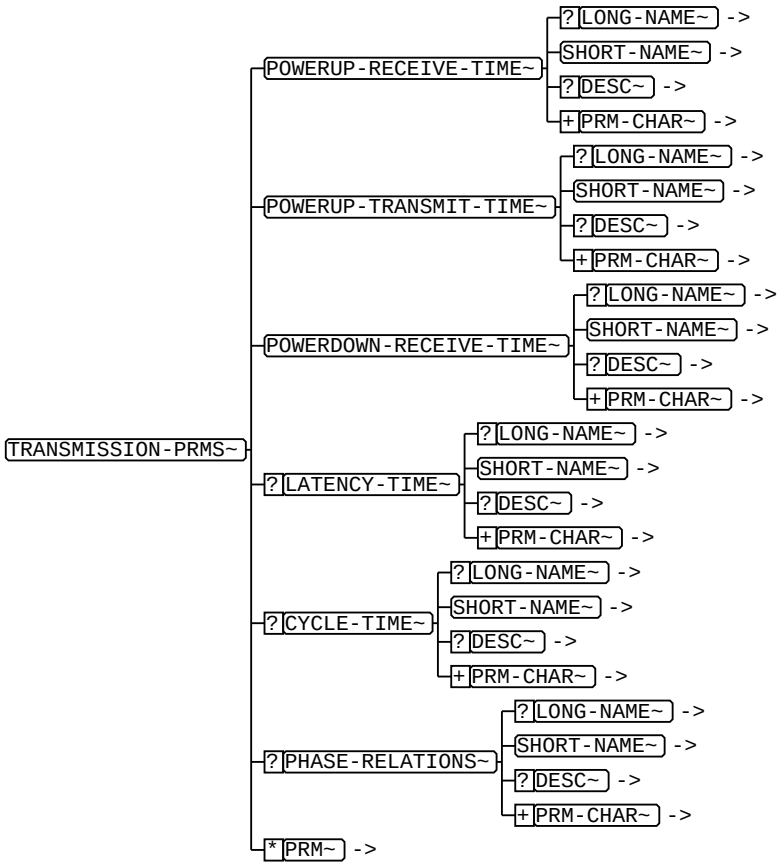


Figure 255: DTD-diagram for TRANSMISSION-PRMS

Child elements **<powerup-receive-time> <powerup-transmit-time> <powerdown-receive-time> <latency-time> <cycle-time> <phase-relations> <prm>**

parent elements **<transmission-spec>**

Table 254: Attributes for TRANSMISSION-PRMS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

23.19 TRANSMISSION-SPEC

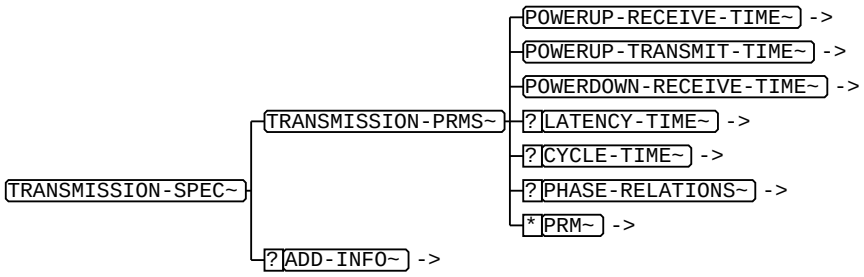


Figure 256: DTD-diagram for TRANSMISSION-SPEC

Child elements **<transmission-prms> <add-info>**

parent elements **<net-message>**

Table 255: Attributes for TRANSMISSION-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

23.20 TT

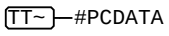


Figure 257: DTD-diagram for TT

Child elements none

parent elements **<change> <desc> <indent-sample> <item-label> <long-name> <long-name-1> <p> <reason> <tbr>**

Table 256: Attributes for TT

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

Table 256 (Cont.): Attributes for TT

Name	Type	Class	Value	Remark
[USER-DEFINED-TYPE]	cdata	implied		

Description technical term

24 TYP ... TYP

24.1 TYP

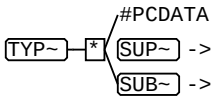


Figure 258: DTD-diagram for TYP

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

parent elements **<prm-char>**

Table 257: Attributes for TYP

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Defines a typical value.

25 UNIT ... USED-LANGUAGES

25.1 UNIT

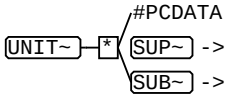


Figure 259: DTD-diagram for UNIT

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

parent elements **<prm-char>**

Table 258: Attributes for UNIT

Name	Type	Class	Value	Remark
[S]	cdata	implied		

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

25.2 USED-LANGUAGES

Figure 260: DTD-diagram for USED-LANGUAGES

Child elements none

parent elements **<admin-data>**

Table 259: Attributes for USED-LANGUAGES

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Null

26 V ... VERBATIM

26.1 V

images/V.bmp

Figure 261: DTD-diagram for V

Child elements none

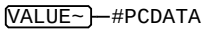
parent elements **<schematic-element>**

Table 260: Attributes for V

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Specifies a value.

26.2 VALUE



images/VALUE.bmp

Figure 262: DTD-diagram for VALUE

Child elements none

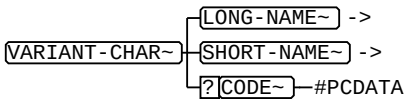
parent elements **<variant-char-value>**

Table 261: Attributes for VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Specifies the value of a variant characteristic.

26.3 VARIANT-CHAR



images/VARIANT-CHAR.bmp

Figure 263: DTD-diagram for VARIANT-CHAR

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

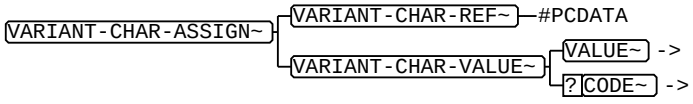
parent elements **<variant-chars>**

Table 262: Attributes for VARIANT-CHAR

Name	Type	Class	Value	Remark
[F-ID-CLASS]	name	fixed	VARIANT-CHAR	
[ID]	id	required		
[S]	cdata	implied		
[TYPE]	nmtkgrp	required	NEW-PART-NUMBER NO-NEW-PART-NUMBER	

Description Definition of a variant characteristic.

26.4 VARIANT-CHAR-ASSIGN



images/VARIANT-CHAR-ASSIGN.bmp

Figure 264: DTD-diagram for VARIANT-CHAR-ASSIGN

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

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

Table 263: Attributes for VARIANT-CHAR-ASSIGN

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Assigns a variant characteristic.

26.5 VARIANT-CHAR-ASSIGNS

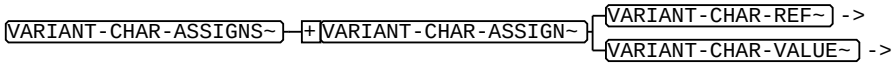


Figure 265: DTD-diagram for VARIANT-CHAR-ASSIGNS

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

parent elements **<variant-def>**

Table 264: Attributes for VARIANT-CHAR-ASSIGNS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Assigns variant characteristics.

26.6 VARIANT-CHAR-REF

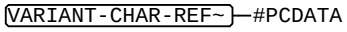


Figure 266: DTD-diagram for VARIANT-CHAR-REF

Child elements none

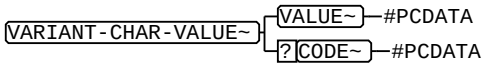
parent elements **<variant-char-assign>**

Table 265: Attributes for VARIANT-CHAR-REF

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

Description Reference to a variant chararteristic.

26.7 VARIANT-CHAR-VALUE



images/VARIANT-CHAR-VALUE.bmp

Figure 267: DTD-diagram for VARIANT-CHAR-VALUE

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

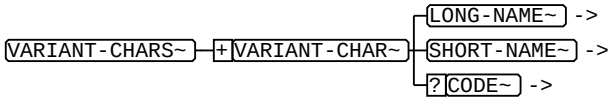
parent elements **<variant-char-assign>**

Table 266: Attributes for VARIANT-CHAR-VALUE

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element contains the value of a variant charateristic.

26.8 VARIANT-CHARS



images/VARIANT-CHARS.bmp

Figure 268: DTD-diagram for VARIANT-CHARS

Child elements **<variant-char>**

parent elements **<variant-spec>**

Table 267: Attributes for VARIANT-CHARS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Definition of variant characteristics.

26.9 VARIANT-DEF

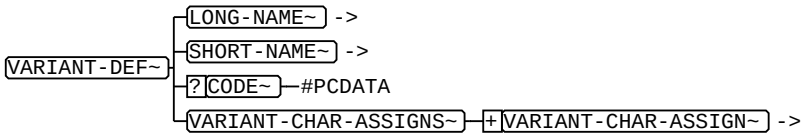


Figure 269: DTD-diagram for VARIANT-DEF

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

parent elements **<variant-defs>**

Table 268: Attributes for VARIANT-DEF

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

Description General definition of a variant.

26.10 VARIANT-DEF-REF

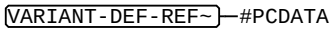


Figure 270: DTD-diagram for VARIANT-DEF-REF

Child elements none

parent elements **<variant-def-refs>**

Table 269: Attributes for VARIANT-DEF-REF

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

Description Reference to a variant definition.

26.11 VARIANT-DEF-REFS

images/VARIANT-DEF-REFS.bmp

Figure 271: DTD-diagram for VARIANT-DEF-REFS

Child elements **<variant-def-ref>**

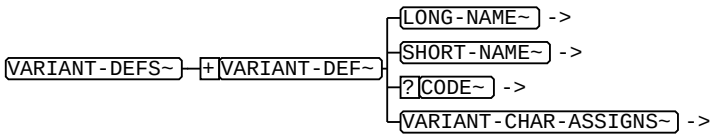
parent elements **<net-message> <net-message-signal> <net-signal> <net-signal-spec-variant> <node-variant> <sender>**

Table 270: Attributes for VARIANT-DEF-REFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description References to a variant definition.

26.12 VARIANT-DEFS



images/VARIANT-DEFS.bmp

Figure 272: DTD-diagram for VARIANT-DEFS

Child elements **<variant-def>**

parent elements **<variant-spec>**

Table 271: Attributes for VARIANT-DEFS

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description General definitions of a variant.

26.13 VARIANT-SPEC

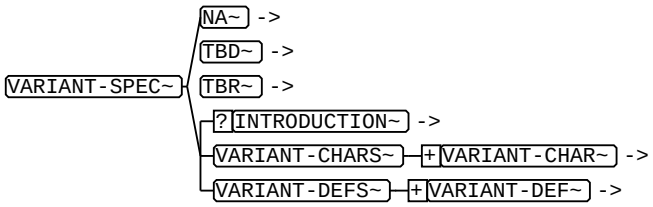


Figure 273: DTD-diagram for VARIANT-SPEC

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

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

Table 272: Attributes for VARIANT-SPEC

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description Specification of a variant.

26.14 VERBATIM

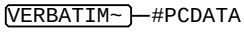


Figure 274: DTD-diagram for VERBATIM

Child elements none

parent elements **<add-info> <chapter> <driver-concept> <entry> <figure> <formula> <introduction> <item> <labeled-item> <ncoi-1> <ncoi-3> <net-emc-design> <net-line-desc> <net-message-desc> <net-message-layout> <remark> <segmentation-desc> <topic-1> <topic-2>**

Table 273: Attributes for VERBATIM

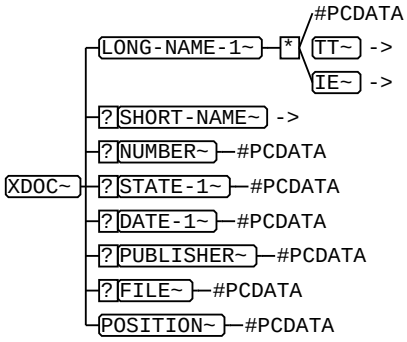
Name	Type	Class	Value	Remark
[ALLOW-BREAK]	number	default	1	
[FLOAT]	nmtkgrp	implied	FLOAT NO-FLOAT	
[HELP-ENTRY]	cdata	implied		
[S]	cdata	implied		

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.

27 XDOC ... XREF

27.1 XDOC



images/XDOC.bmp

Figure 275: DTD-diagram for XDOC

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

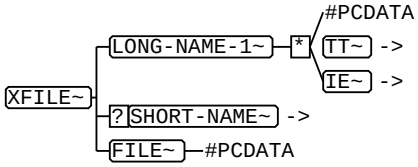
parent elements **<p> <tbr>**

Table 274: 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		

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.

27.2 XFILE



images/XFILE.bmp

Figure 276: DTD-diagram for XFILE

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

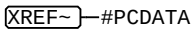
parent elements **<p> <tbr>**

Table 275: Attributes for XFILE

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

27.3 XREF



images/XREF.bmp

Figure 277: DTD-diagram for XREF

Child elements none

parent elements **<change> <desc> <indent-sample> <item-label> <p> <reason> <tbr>**

Table 276: Attributes for XREF

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

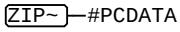
Table 276 (Cont.): Attributes for XREF

Name	Type	Class	Value	Remark
[ID-CLASS]	nmtkgrp	required	CHAPTER COMPANY CONNECTION-COMP DEF-ITEM FIGURE FORMULA NET-LINE NET-MESSAGE NET-MESSAGE-SET NET-NODE NET-NODE-PORT NET-SIGNAL NET-SIGNAL-GROUP PRM SAMPLE STD SW-COMPU-METHOD SW-UNIT TABLE TEAM-MEMBER TOPIC VARIANT-CHAR VARIANT-DEF X-DOC XFILE EXTERNAL	
[ID-REF]	idref	required		
[S]	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.

28 ZIP ... ZIP

28.1 ZIP



images/ZIP.bmp

Figure 278: DTD-diagram for ZIP

Child elements none

parent elements **<team-member>**

Table 277: Attributes for ZIP

Name	Type	Class	Value	Remark
[S]	cdata	implied		

Description This element contains the ZIP of the used address.

Documentadministration

Overview of Changes

Total	Documentpart	Nr.	Change	Reason	Related to
19.2.1999		3	initial release		Content
28.05.99		2	Extension of element descriptions		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 28	2002-02-07	Dipl.-Ing- Roman Reimer			
	Changes 1	MEDOC	3	RD	
	28.05.99	Dipl.-Ing. Bernhard Weichel			
	Changes 2	MEDOC	2	rd	
	19.2.1999	Dipl.-Ing. Bernhard Weichel			
	Changes 3	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

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Width and height of graphics is not considered

Titlepage Graphic (—graphic)
No title graphic specified

Logo Graphic (—head-logo)
msrreportlogo.eps

Fixtext File (—fixtext)
C:\Programme\Medoc\Metapage\mmapps\msrrep\lib\msrrep_ft.xml

Output of Local Administrative Data (—admindata)
Local administrative data is output

Filename
C:\Docs\MEDOC\MSRNET\docs\en\eadoc\msrnet-eadoc_V210.xml

MetaMorphosis-Version
3.2

Form Version
2.0 (MetaPage)

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