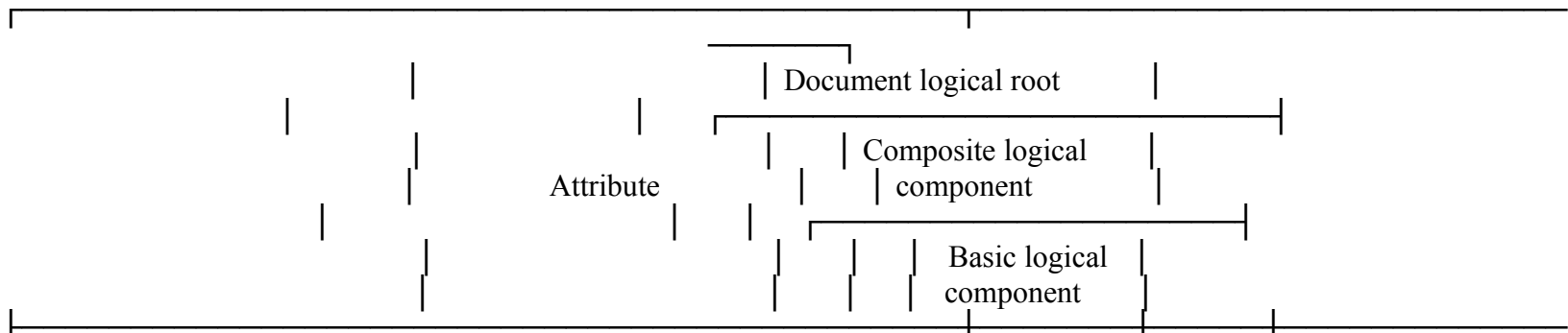


TABLE 1/T.502

Attributes applicable to the "body" part of the generic logical structure and the specific logical structure

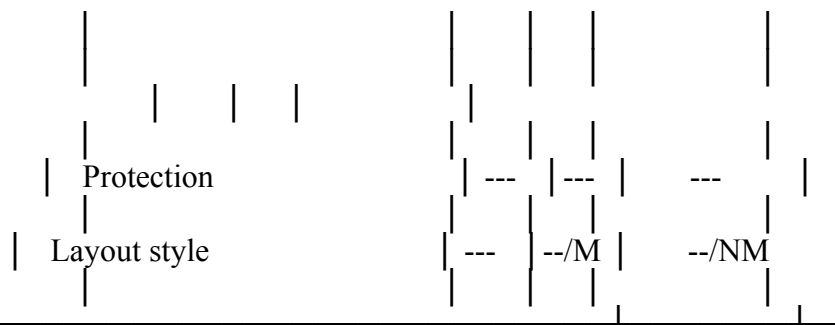
w



wShared attributesw

Object type	M/D	M/D	M/D
Object identifier	--/M	--/M	--/M
Object class identifier	M/--	M/--	M/--
Generator for subordinates	M/--	M/--	---
Content generator	---	---	---
Object class	--/M	--/M	--/M
Subordinates	--/M	--/M	---
Content portions	---	---	--/M
Resource	---	---	---
Presentation style	---	---	--/NM
Content architecture class	---	---	--/D
Content type	---	---	---
User readable comments	--/D	--/D	--/D
Application comments	---	---	---
User visible name	--/NM	--/NM	--/NM
Bindings	---	---	---
Default value list	---	---	---

| wLogical attributesw



Attributes applicable to the "header and footer" part of the generic logical structure

w

	Composite logical component	
	Attribute	Basic logical component
<u>w</u> Shared attributesw		
Object type	M	M
Object identifier	--	--
Object class identifier	M	M
Generator for subordinates	M	--
Content generator (see Note)	--	NM
Object class	--	--
Subordinates	--	--
Content portions (see Note)	--	NM
Resource	--	--
Presentation style	--	NM
Presentation attributes	--	--
Content architecture class	--	NM
Content type	--	--
User readable comments	--	--
Application comments	--	--
User visible name	--	--
Bindings	--	--
Default value list	--	--
<u>w</u> Logical attributesw		

Protection	--	--
Layout style	--	NM
Layout directives	--	--

Note - Each basic logical object class in the "header and footer" part must reference a generic content portion or contain the attribute "content generator".

6.2.3.2 Specifications of attribute values for logical object class descriptions

Table 3/T.502 specifies attribute values allowed in logical object class descriptions representing the "body" part of the generic logical structure. Table 4/T.502 specifies attribute values allowed in logical object class descriptions representing the "header and footer" part of the generic logical structure.

TABLE 3/T.502

Attribute values allowed for to objet classes in the "body" part of the generic logical structure

Attribute	Basic value	Non-basic value
Object type	document root, composite logical object, basic logical object	none
Object class identifier	any	none
Generator for subordinates	see § 6.2.3.2.1	none

TABLE 4/T.502

Attribute values allowed for object classes in the "header and footer" part of the generic logical structure

Attribute	Basic value	Non-basic value
Object type	composite logical object, basic logical object	none

Object class identifier	any	none
Generator for subordinates	see § 6.2.3.2.2	none
Content generator	see § 6.2.3.2.3	none
Content portions	any	none
Presentation style	any (see § 6.4.4.2)	none
Content architecture class	'processable', 'formatted processable'	none
Layout style	any (see § 6.2.4)	none

6.2.3.2.1 In the "body" part of the generic structure, the attribute "generator" for subordinates has the following values:

document logical root class: REP ({GroupOfParagraphsObjClassId})

composite logical object class: REP ({ParagraphObjClassId})

where 'GroupOfParagraphsObjClassId' is the object class identifier of the composite logical object class that represents a group of "paragraphs" and 'ParagraphObjClassId' is the object class identifier of the basic logical object class that represents a "paragraph".

6.2.3.2.2 In the "header and footer" part of the generic logical structure, the allowable format of the attribute "generator for subordinates" for the composite logical object classes of the types "header root" and "footer root" is:

SEQ ({BasicObjectClassId} ...)

where 'BasicObjectClassId' is the object class identifier of any basic logical object class of the type "header text" and "footer text".

Note - A basic logical object class in the header and footer part may be referenced by more than one "header root" and by more than one "footer root".

6.2.3.2.3 The allowable formats of the attribute "content generator" is specified by the following production rule:

<string expression> ::= [<string expression 1>]{<string expression 2>}
[<string expression 3>]

<string expression 1> ::= "<character string>"

<string expression 3> ::= "<character string>"

<string expression 2> ::= MAKE-STRING (<numeric expression>)
/UPPER-ALPHA (<numeric expression>)
/LOWER-ALPHA (<numeric expression>)
/UPPER-ROMAN (<numeric expression>)
/LOWER-ROMAN (<numeric expression>)

<numeric expression> ::= BINDING REFERENCE (<binding selection
function>, 'PGnum')

<binding selection
function> ::= SUPERIOR (CURRENT-INSTANCE (FRAME, CURRENT-OBJECT))

6.2.3.3 Specifications of attributes for logical object descriptions

Table 5/T.502 specifies the attribute values allowed in logical object descriptions.

TABLE 5/T.502

Attribute values allowed for objects in the specific logical structure

w

Attribute	Basic value	Non-basic value	Default value
Object type	Document root, composite logical object, basic logical object	none	-
Object identifier	any	none	-
Object class	any	none	-
Subordinates	any	none	-
Content portion	any	none	-
Presentation style	any	none	-
Content architecture class	'processable', 'formatted processable'	none	see § 6.2.3.3.1
User readable comments	any	none string	empty
User visible name	any	none	-
Layout style	any (see § 6.2.4)	none	-

6.2.3.3.1 For processable form documents, the default value of the attribute "content architecture class" is 'processable'; for formatted processable form documents, the default value is 'formatted processable'. As these are a non-standard default values, their use must be indicated in the document profile. The value of this attribute is an ASN.1 object identifier whose values are defined in Recommendation T.416.

6.2.4 Layout styles

6.2.4.1 Applicability of layout style attributes

Table 6/T.502 defines the layout style attributes that may be specified in layout styles that are referenced by logical object classes in the "body" part of the specific logical structure.

TABLE 6/T.502

Layout style attributes applicable to the "body" part of the specific logical structure

Attribute	Composite logical object	
	Basic logical object	
Layout style identifier	O	O
User readable comments	X	X
User visible name	X	X
Concatenation	-	-
Indivisibility	X	X
Layout object class	O	-
New layout object	-	X
Offset		
- leading offset	-	X
- trailing offset	-	X
- left-hand offset	-	X
- right-hand offset	-	X
Same layout object		
- first parameter	-	X
- second parameter	-	X
Separation		
- leading edge	-	X
- trailing edge	-	X
- centre separation		

Table 7/T.502 defines the layout style attributes applicable to the "header and footer" part of the generic logical structure.

TABLE 7/T.502

Layout style attributes applicable to the "header and footer" part of the generic logical structure

Attribute	Composite logical component	
	Basic logical component	

Layout style identifier	-	O
User readable comments	-	X
User visible name	-	X
Concatenation	-	X
Indivisibility	-	-
Layout object class	-	-
New layout object	-	-
Offset		
- leading offset	-	X
- trailing offset	-	X
- left-hand offset	-	X
- right-hand offset	-	X
Same layout object		
- first parameter	-	-
- second parameter	-	-
Separation		
- leading edge	-	X
- trailing edge	-	X
- centre separation	-	-

Table 8/T.502 specifies attribute values allowed in layout style.

TABLE 8/T.502

Values allowed for layout style attributes

w

Attribute	Basic value	Non-basic value	Default value
Layout style identifier	any	none	-
User readable comments	any	none	-
User visible name	any	none	-
Concatenation	non-concatenated, concatenated	none	non-concatenated
Indivisibility	the object type 'page' or 'null'	none	'null'
Layout object class	the identifier of a page set class	none	-
New layout object	the identifier of a layout object class, the object type 'page' or 'null'	none	'null'
Offset leading offset trailing offset right offset left offset	any any any any	none none none none	0 BMU 0 BMU 0 BMU 0 BMU

Same layout object	an expression (see § 6.2.4.2.1) or 'null'	none	'null'
first parameter			
second parameter	the object type 'page' or 'null'		as defined in Rec. T.412

Separation leading edge	any	none	0 BMU
trailing edge	any	none	0 BMU

6.2.4.2.1 The attribute "same layout object" may contain the following expression: (PREC-OBJ(CURR- OBJ)), which indicates that the basic logical object is to be laid out in the same layout object as the immediately preceding basic logical object. No other expression is allowed.

6.3 Layout structure

6.3.1 The generic layout structures

A 'complete' and a 'partial' generic layout structure are defined in this document application profile. The 'complete' generic layout structure is present in processable and formatted processable documents and defines all possible specific layout structures that may be created as a result of the document layout process.

The 'partial' generic layout structure may only be used in formatted form documents. It is used only to provide predefined attribute values and content portions for layout objects in the specific layout structure (i.e. factorization).

6.3.1.1 The 'complete' generic layout structure

A general description of the permissible document layout structure is given in § 5.3.1. In order to represent these structures, the generic layout structure consists of four hierarchical levels, each of which must always be present:

- the document layout root;
- the page set level (one level only);
- the page level;
- the frame level (one level only).

The document layout root consists of one or more subordinate page sets, where the number of page sets is unrestricted. Each page set may consist of a sequence of one or more subordinate pages in accordance with the specification given in § 5.3.1.

Each of these pages may contain one, two or three subordinate frames that are used to represent the header, body and footer area as described in § 5.3.2. The body area frame is mandatory, whereas the header and footer frames are optional. These frames any or may not be adjacent to one another but they must not overlap.

The layout path is always 270 degrees for each frame and it is not possible to alter this value. The attribute "medium type" specifies the size of the nominal page corresponding to each layout object of the type page and specifies whether the nominal page is to be in portrait or landscape orientation.

Content in the specific logical structure is laid out in the body frames; this content cannot be laid out in the header or footer frames. The header and footer frames, if present, must contain the attribute "logical source" which indicates the appropriate generic logical object class that contains the content to be laid out in those frames.

The 'complete' generic layout structure may vary in accordance with the layout requirements of each particular document. In a particular 'complete' generic layout structure, the value of the attribute "generator for subordinates" in the document layout root, in each page set and in each page define the allowable specific layout structures for that particular document. The ranges of all possible values of the attribute "generator for subordinates" at each of the hierarchical levels in the 'complete' generic layout structure are defined formally in § 6.3.3.2.1.

This definition, in effect, defines all possible generic layout structures that are allowed by PM1. These structures are illustrated in Figures 8/T.502 and 9/T.502. Figure 9/T.502 shows the five ways in which pages within a page set can be specified, in accordance with § 5.3.1.

FIGURE 8/T.502

Example of a particular generic layout structure

FIGURE 9/T.502

Illustration of the possible page set classes

6.3.1.2 The 'partial' generic layout structure

The 'partial' generic layout structure may consist of the following object classes:

- the document layout root class;
- page set classes;
- page classes;
- frame classes.

All these classes are optional; each type of class may occur one or more times within a particular document, except the document layout root class, which may only occur one. The document layout root, each page set class and each page class may or may not reference other object classes in the 'partial' generic layout structure by means of the attribute "generator for subordinates".

6.3.2 The specific layout structure

In the case of a formatted processable document, the specific layout structure present in a document must comply with the particular generic layout structure present in that document.

In the case of formatted documents, no 'complete' generic layout structure is present but the specific structure must comply with an allowable 'complete' generic layout structure, as defined in § 6.3.2.1. If a 'partial' generic layout structure is present, then the objects in the specific layout structure may or may not refer to objects in that generic layout structure.

The following additional restrictions are also applicable to the specific layout structure:

- each frame must contain one or more subordinate blocks;
- each block must reference only one content portion.

6.3.3. Attributes of layout components

6.3.3.1 Attributes application to layout component descriptions

Table 9/T.502 defines the attributes applicable to layout components.

TABLE 9/T.502

Attributes applicable to layout objects and layout object classes

w

	Document layout root	Page set	Page	Frame	Block
Attribute					
Shared attributes					
Object type	M/D	M/D	M/D	M/D	--/M
Object identifier	--/M	--/M	--/M	--/M	--/M
Object class identifier	M/--	M/--	M/--	M/--	---
Generator for subordinates (Note 3)	M/--	M/--	M/--	---	---
Object class (Note 4)	--/M	--/M	--/M	--/M	---
Subordinates	--/M	--/M	--/M	--/M	---
Content portions	---	---	---	---	--/M
Resource	---	---	---	---	---
Presentation style	---	---	---	---	--/D
Presentation attributes	---	---	---	---	--/NM
Content architecture class	---	---	---	---	--/D
Content type	---	---	---	---	---
User readable comments	NM/D	NM/D	NM/D	NM/D	--/D
Application comments	---	---	---	---	---
User visible name	NM/NM	NM/NM	NM/NM	NM/NM	--/NM

Bindings	NM/-	NM/-	NM/-	---	---	
Default value list						
Layout attributes						
Position (Note 2)	---	---	---	NM/D	--/M	
Dimension (Note 2)	---	---	NM/D	NM/D	--/D	
Layout texture						
Border						
Balance						
Layout path				--/D		
Logical source (Note 1)				M/--		
Permitted categories						
Imaging order						
Page position	---	---	NM/D			
Medium type	---	---	M/D			

Note 1 - The attribute logical source is only applicable to frame classes of the type "header frame" and "footer frame".

Note 2 - For the attribute "dimension" and "position", only the subparameters "fixed dimension" and "fixed position" respectively, may be specified.

Note 3 - The attribute "generator for subordinates" is non-mandatory for layout object classes in a formatted form document.

Note 4 - The attribute "object class" is non-mandatory for layout objects in a formatted form document.

6.3.3.2 Specification of attribute for layout object class descriptions

Table 10/T.502 specifies the attribute values allowed in layout component descriptions.

TABLE 10/T.502

Attribute values allowed for objects in the generic layout structure

Attribute	Basic value	Non-basic value
Object type	document layout root, page-set, page frame	none
Object class identifier	any	none
Generator for subordinates	see § 6.3.3.2.1	none
User readable comments	any	none
User visible name	any	none
Bindings	see § 6.3.3.2.2	none
Position	frame: any value within the limits of a page (overlapping of frames not allowed)	none
Dimensions	Portrait: x ≤ 9240 BMU y ≤ 12400 BMU Landscape: x ≤ 12400 BMU y ≤ 9240 BMU	Portrait (ISO A4) x ≤ 9920 BMU y ≤ 14030 BMU Landscape (ISO A4) x ≤ 14030 BMU y ≤ 9920 BMU

		Portrait (NAL) x ≤ 10200 BMU y ≤ 13200 BMU Landscape (NAL) x ≤ 13200 BMU y ≤ 10200 BMU	
		Portrait (ISO A3) x ≤ 14030 BMU y ≤ 19840 BMU Landscape (ISO A3) x ≤ 19840 BMU y ≤ 14030 BMU	
	Logical source	any	none
	Page position	any	none
	Medium type		
	nominal page size (see § 6.3.3.2.3)	ISO A4 NAL	ISO A3
	side of sheet	'recto', 'verso', 'unspecified'	none