

Control function	Basic value(s)	Non-basic value(s)
BS	not applicable	not applicable
CR	not applicable	not applicable
IGS	3	the identifier of any other registered subrepertoire of ISO 6937
LF	not applicable	not applicable
PLD	not applicable	not applicable
PLU	not applicable	not applicable
SGR	0, 4	1, 3, 10-19, 22-24, 26, 50
SHS	0	1, 2, 3
SP	not applicable	not applicable
SUB	not applicable	not applicable
SVS	0, 1, 2, 3	4

Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

The default value of these control function parameters is as specified in this Recommendation except IGS (default value = 3).

B.4 Character content architecture level CF-3

B.4.1 Type

CF-3 is a character content architecture level pertaining to the formatted character content architecture class.

B.4.2 Presentation attributes

w

Presentation attribute	Basic value(s)	Non-basic value(s)
alignment	start aligned end aligned centred justified	none
character fonts	1) none 2) none	any any
character orientation	0 degrees	90, 180, 270 degrees
character path	0, 90 degrees	180, 270 degrees
character spacing	the equivalent of 100, 120 BMUs	any other positive integer

w

Presentation attribute	Basic value(s)	Non-basic value(s)
code extension announcers	any string of escape sequences in accordance with ISO 2022	none
first line offset	any integer	none
formatting indicator	no, yes	none
graphic character sets	the escape sequences to designate, and the locking shift functions to invoke, the graphic character sets of ISO 6937-2	the escape sequences to designate, and any required locking shift functions to invoke, any other registered graphic character sets
graphic character subrepertoire	0	the identifier of any registered subrepertoire of ISO 6937

graphic rendition	0, 1, 3-4, 9, 10-19, 21-24, 29	2, 5-7, 25-27, 50	
initial offset	1) any non-negative integer	none	
	2) any non-negative integer	none	
itemization	1) no itemization	none	
	start-aligned		
	end-aligned		
	2) any integer	none	
	3) any integer	none	
kerning offset	1) any non-negative integer	none	
	2) any non-negative integer	none	
line layout table	1) any	none	
	2) any	none	
	3) start-aligned	none	
	end-aligned		
	centred		
	aligned-around		
	4) any	none	
line progression	270 degrees	90 degrees	
line spacing	the equivalent of 100, 200, 300, 400 BMUs	any other positive integer	
pairwise kerning	yes, no	none	

The default value of these presentation attributes is as specified in this Recommendation.

B.4.3 Control functions

w

Control function	Basic value(s)	Non-basic value(s)
BS	not applicable	not applicable
CR	not applicable	not applicable
GCC	0, 1, 2	none
HPB	any positive integer	none
HPR	any positive integer	none
IGS	0	the identifier of any registered subrepertoire of ISO 6937
JFY	0	none
LF	not applicable	not applicable
PLD	not applicable	not applicable
PLU	not applicable	not applicable
SACS	any non-negative integer	none
SCS	any positive integer	none
SGR	0, 1, 3-4, 10-19, 21-24, 29, 50	2, 5-7, 25-27, 50
SHS	0, 1	2, 3, 4
SLS	any positive integer	none

SP	not applicable	not applicable
SRCS	any non-negative integer	none
SRS	0, 1	none
SSW	any positive integer	none
STAB	any	none
SUB	not applicable	not applicable
SVS	0, 1, 2, 3	4, 9
VPB	any positive integer	none
VPR	any positive integer	none

Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

The default value of these control function parameters is as specified in this Recommendation.

B.5 Character content architecture level CP-0

B.5.1 Type

CP-3 is a character content architecture level pertaining to the processable character content architecture class.

B.5.2 Presentation attributes

w

Presentation attribute	Basic value(s)	Non-basic value(s)
alignment	start aligned centred justified	none
code extension announcers	any string of escape sequences in accordance with ISO 2022	none
graphic rendition	0, 4	none

The default value of these presentation attributes is as specified in this Recommendation.

It is assumed that all presentation attributes that are applicable to processable character content architectures, and that are not specified in the above table, have values equal to the default values specified in this Recommendation except:
- "graphic character subrepertoire": default value = 3.

B.5.3 Control functions

w

Control function	Basic value(s)	Non-basic value(s)
CR	not applicable	not applicable
LF	not applicable	not applicable
SUB	not applicable	not applicable

Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

B.6 Character content architecture level CP-2

B.6.1 Type

CP-2 is a character content architecture level pertaining to the processable character content architecture class.

B.6.2 Presentation attributes

w

Presentation attribute	Basic value(s)	Non-basic value(s)
alignment	start aligned end aligned centred justified	none
character orientation	0 degrees	90 degrees
character path	0, 90 degrees	270 degrees

Presentation attribute	Basic value(s)	Non-basic value(s)
character spacing	the equivalent of 120 BMUs	the equivalent of 80, 100, 120 BMUs
code extension announcers	any string of escape sequences in accordance with ISO 2022	none
graphic character sets	the escape sequences to designate, and the locking shift functions to invoke, the graphic character sets of ISO 6937-2	the escape sequences to designate, and any required locking shift functions to invoke, any other registered graphic character sets
graphic character subrepertoire	3	the identifier of any registered subrepertoire of ISO 6937
graphic rendition	0, 4	1, 3, 10-19, 22-24, 26, 50
indentation	any non-negative integer	none
line layout table	1) any 2) any 3) start-aligned end-aligned centred aligned-around 4) any	none none none none none
line progression	270 degrees	none
line spacing	the equivalent of 100, 200, 300, 400 BMUs	the equivalent of 150 BMUs

The default value of these presentation attributes is as specified in this Recommendation except "graphic character subrepertoire".

It is assumed that all presentation attributes that are applicable to processable character content architectures, and that are not specified in the above table, have values equal to the default values specified in this Recommendation.

B.6.3 Control functions

w

Control function	Basic value(s)	Non-basic value(s)
BPH	not applicable	not applicable
CR	not applicable	not applicable
IGS	3	the identifier of any other registered subrepertoire of ISO 6937
LF	not applicable	not applicable
NBH	not applicable	not applicable
PLD	not applicable	not applicable
PLU	not applicable	not applicable
SGR	0, 4	1, 3, 10-19, 22-24, 26, 50
SHS	0	1, 2, 3
SP	not applicable	not applicable
STAB	any	none
SUB	not applicable	not applicable
SVS	0, 1, 2, 3	4, 9

Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

The default value of these control function parameters is as specified in this Recommendation except IGS (default value = 3).

B.7 Character content architecture level CP-3

B.7.1 Type

CP-3 is a character content architecture level pertaining to the processable character content architecture class.

B.7.2 Presentation attributes

w

Presentation attribute	Basic value(s)	Non-basic value(s)
alignment	start aligned end aligned centred justified	none
character fonts	1) none 2) none	any
character orientation	0 degrees	90, 180, 270 degrees
character path	0, 90 degrees	180, 270 degrees

Presentation attribute	Basic value(s)	Non-basic value(s)
character spacing	the equivalent of 100, 120 BMUs	any other positive integer
code extension announcers	any string of escape sequences in accordance with ISO 2022	none
graphic character sets	the escape sequences to designate, and the locking shift functions to invoke, the graphic character sets of ISO 6937-2	the escape sequences to designate, and any required locking shift functions to invoke, any other registered graphic character sets
graphic character subrepertoire	0	the identifier of any registered subrepertoire of ISO 6937
graphic rendition	0, 1, 3-4, 9, 10-19, 21-24, 29	2, 5-7, 25-27, 50
first line offset	any integer	none
indentation	any non-negative integer	none
itemization	1) no itemization start-aligned end-aligned 2) any integer 3) any integer	none none none
kerning offset	1) any non-negative integer 2) any non-negative integer	none none
line layout table	1) any 2) any 3) start-aligned end-aligned centred aligned-around 4) any	none none none none

line progression	270 degrees	90 degrees	
line spacing	the equivalent of 100, 200, 300, 400 BMUs	any other positive integer	
orphan size	any positive integer	none	
pairwise kerning	yes, no	none	
proportional line spacing	yes, no	none	
widow size	any positive integer	none	

The default value of these presentation attributes is as specified in this Recommendation.

B.7.3 Control functions

w

Control function	Basic value(s)	Non-basic value(s)
BPH	not applicable	not applicable
CR	not applicable	not applicable
GCC	0, 1, 2	none
IGS	0	the identifier of any registered subrepertoire of ISO 6937
LF	not applicable	not applicable
NBH	not applicable	not applicable
PLD	not applicable	not applicable
PLU	not applicable	not applicable
PTX	0, 1, 3	none
SCS	any positive integer	none
SGR	0, 1, 3-4, 9, 10-19, 21-24, 29	2, 5-7, 25-27, 50
SHS	0, 1	2, 3, 4
SLS	any positive integer	none
SP	not applicable	not applicable
SRS	0, 1	none

STAB	any	none
SUB	not applicable	not applicable
SVS	0, 1, 2, 3	4, 9
VPB	any positive integer	none
VPR	any positive integer	none

Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

The default value of these control function parameters is as specified in this Recommendation.

B.8 Character content architecture level CFP-2

B.8.1 Type

CFP-2 is a character content architecture level pertaining to the formatted processable character content architecture class.

B.8.2 Presentation attributes

w

Presentation attribute	Basic value(s)	Non-basic value(s)
alignment	start aligned end aligned centred justified	none
character orientation	0 degrees	90 degrees
character path	0, 90 degrees	270 degrees
character spacing	the equivalent of 120 BMUs 120 BMUs	the equivalent of 80, 100, 120 BMUs
code extension announcers	any string of escape sequences in accordance with ISO 2022	none
graphic character sets	the escape sequences to designate, and the locking shift functions to invoke, the graphic character sets of ISO 6937-2	the escape sequences to designate, and any required locking shift functions to invoke, any other registered graphic character sets
graphic character subrepertoire	3 ISO 6937	the identifier of any registered subrepertoire of ISO 6937
graphic rendition	0, 4	1, 3, 10-19, 22-24, 26, 50
initial offset	1) any non-negative integer 2) any non-negative integer	none none
indentation	any non-negative integer	none
line layout table	1) any 2) any 3) start-aligned	none none none

	end-aligned centred aligned-around 4) any		none		
line progression	270 degrees		none		
line spacing	the equivalent of 100, 200, 300, 400 BMUs		the equivalent of 150 BMUs		

The default value of these presentation attributes is as specified in this Recommendation except "graphic character subrepertoire".

It is assumed that all presentation attributes that are applicable to formatted processable character content architectures, and that are not specified in the above table, have values equal to the default values specified in this Recommendation except:

- graphic character subrepertoire: default value = 3.

B.8.3 Control functions

w

Control function	Basic value(s)	Non-basic value(s)
BPH	not applicable	not applicable
BS	not applicable	not applicable
CR	not applicable	not applicable
IGS	3	the identifier of any other registered subrepertoire of ISO 6937
LF	not applicable	not applicable
NBH	not applicable	not applicable
PLD	not applicable	not applicable
PLU	not applicable	not applicable
SGR	0, 4	1, 3, 10-19, 22-24, 26, 50
SHS	0	1, 2, 3
SOS	not applicable	not applicable
SP	not applicable	not applicable
ST	not applicable	not applicable
STAB	any	none
SUB	not applicable	not applicable

SVS	0, 1, 2, 3	4, 9	
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Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

The default value of these control function parameters are as specified in this Recommendation except IGS (default value = 3).

B.9 Character content architecture level CFP-3

B.9.1 Type

CFP-3 is a character content architecture level pertaining to the formatted processable character content architecture class.

Presentation attribute	Basic value(s)	Non-basic value(s)
alignment	start aligned end aligned centred justified	none
character fonts	1) none 2) none	any any
character orientation	0 degrees	90, 180, 270 degrees
character path	0, 90 degrees	180, 270 degrees
character spacing	the equivalent of 100, 120 BMUs	any other positive integer
code extension announcers	any string of escape sequences in accordance with ISO 2022	none
formatting indicator	no, yes	none
graphic character sets	the escape sequences to designate, and the locking shift functions to invoke, the graphic character sets of ISO 6937-2	the escape sequences to designate, and any required locking shift functions to invoke, any other registered graphic character sets
graphic character subrepertoire	0	the identifier of any registered subrepertoire of ISO 6937
graphic rendition	0, 1, 3-4, 9, 10-19, 21-24, 29	2, 5-7, 25-27, 50
first line offset	any integer	none

initial offset	1) any non-negative integer 2) any non-negative integer	none none	
indentation	any non-negative integer	none	
itemization	1) no itemization start-aligned end-aligned 2) any integer 3) any integer	none none none	

Presentation attribute	Basic value(s)	Non-basic value(s)
kerning offset	1) any non-negative integer 2) any non-negative integer	none none
line layout table	1) any 2) any 3) start-aligned end-aligned centred aligned-around 4) any	none none none none none
line progression	270 degrees	90 degrees
line spacing	the equivalent of 100, 200, 300, 400 BMUs	any other positive integer
orphan size	any positive integer	none
pairwise kerning	yes, no	none
proportional line spacing	yes, no	none
widow size	any positive integer	none

B.9.3 wControl functions

Control function	Basic value(s)	Non-basic value(s)
BPH	not applicable	not applicable
BS	not applicable	not applicable
CR	not applicable	not applicable

GCC	0, 1, 2	none	
HPB	any positive integer	none	
HPR	any positive integer	none	
IGS	0	the identifier of any registered subrepertoire of ISO 6937	
JFY	0	none	
LF	not applicable	not applicable	

Control function	Basic value(s)	Non-basic value(s)
NBH	not applicable	not applicable
PLD	not applicable	not applicable
PLU	not applicable	not applicable
PTX	0, 1, 3	none
SACS	any non-negative integer	none
SCS	any positive integer	none
SGR	0, 1, 3-4, 10-19, 21-24, 29	2, 5-7, 25-27, 50
SHS	0, 1	2, 3, 4
SLS	any positive integer	none
SOS	not applicable	not applicable
SP	not applicable	not applicable
SRCS	any non-negative integer	none
SRS	0, 1	none
SSW	any positive integer	none
ST	not applicable	not applicable
STAB	any	none
SUB	not applicable	not applicable

SVS	0, 1, 2, 3	4, 9	
VPB	any positive integer	none	
VPR	any positive integer	none	

Any code extension control function defined in ISO 2022, within the scope of the value of the attribute "code extension announcers", is permitted.

(to Recommendation T.416)

Coded representations of control functions

(Informative)

Coded representations of control functions are defined in ISO 6429. A summary of the coded representations of the control functions defined in this Recommendation is given below.

In this table, CSI denotes the Control Sequence Introducer represented by the bit-combination 09/11 and Pn and Ps denote respectively numeric and selective parameter values represented by one or more bit combinations in the range 03/00 to 03/09.

This coded representation of a control function with parameters but with Pn or Ps omitted represents that control function with the default value of the parameter.

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Control function	Coded representation
BPH (Break Permitted Here)	08/02
BS (Backspace)	00/08
CR (Carriage Return)	00/13
HPB (Character Position Backward)	CSI Pn 06/10
HPR (Character Position Relative)	CSI Pn 06/01
GCC (Graphic Character Composition)	CSI Ps 02/00 05/15
IGS (Identify Graphic Subrepertoire)	CSI Ps 02/00 04/13
JFY (No Justify)	CSI 02/00 04/06
LF (Line Feed)	00/10
NBH (No Break Here)	08/03
PLD (Partial Line Down)	08/11
PLU (Partial Line Up)	08/12
PTX (Parallel Texts)	CSI Ps 05/12
SCS (Set Character Spacing)	CSI Pn 02/00 06/07
SGR (Select Graphic Rendition)	CSI Ps... 06/13
SHS (Select Character Spacing)	CSI Ps 02/00 04/11
SACS (Set Additional Character Spacing)	CSI Pn 02/00 05/12
SLS (Set Line Spacing)	CSI Pn 02/00 06/08
SOS (Start Of String)	09/08
SRCS (Set Reduced Character Spacing)	CSI Pn 02/00 06/06
SSW (Set SPACE Width)	CSI Pn 02/00 05/11
SP (SPACE)	02/00
SRS (Start Reverse String)	CSI Ps 05/11
ST (String Terminator)	09/12
STAB (Selective Tabulation)	CSI Ps 02/00 04/12
SUB (Substitute)	01/10
SVS (Select Line Spacing)	CSI Ps 02/00 04/12
VPB (Line Position Backward)	CSI Pn 06/11

ANNEX D

(to Recommendation T.416)

Summary of object identifiers

(Informative)

Values of ASN.1 object identifiers are assigned in various sections in this Recommendation. These are summarised below:

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Object identifier value	Meaning	Section
{ 2 8 1 6 2 }	Identifies module; character presentation attributes	9.2
{ 2 8 1 6 3 }	Identifies module; character coding attributes	9.3
{ 2 8 1 6 4 }	Identifies module; character profile attributes	9.4
{ 2 8 2 6 0 }	Identifies formatted character; content architecture class	7.4
{ 2 8 2 6 1 }	Identifies processable character; content architecture class	7.4
{ 2 8 2 6 2 }	Identifies formatted processable; character content architecture class	7.4
{ 2 8 3 6 0 }	Identifies ISO 2022 type of coding	8.1