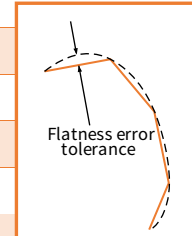


Graphics State

Parameter	Type(s)	Version	ExtGState Key(s)	Operator(s)	Initial Value
CTM	array (<i>matrix</i>)	PDF 1.0	-	cm	Identity matrix: [1 0 0 1 0 0]
Clipping path	path	PDF 1.0	-	W, W*, ET (if Tr=4-7)	MediaBox of page. BBox for XObjects.
Color space	name or array	PDF 1.0	-	<i>various</i>	DeviceGray
Color	<i>various</i>	PDF 1.0	-	<i>various</i>	black (0.0) in DeviceGray
Text matrix	array (<i>matrix</i>)	PDF 1.0	-	Tm, Td, TD, T*, ', "	Identity matrix: [1 0 0 1 0 0]
Text font and size	name and number	PDF 1.0	Font	Tf	<i>no initial value (unset)</i>
Text horizontal scaling	number (> 0, <i>percentage</i>)	PDF 1.0	-	Tz	100.0
Text Knockout	boolean	PDF 1.4	TK	-	false
Text character spacing	number	PDF 1.0	-	Tc, "	0.0
Text word spacing	number	PDF 1.0	-	Tw, "	0.0
Text Leading	number	PDF 1.0	-	TL, TD, T*	0.0
Text rendering mode	integer (0-7)	PDF 1.0	-	Tr	0 (fill)
Text rise	number	PDF 1.0	-	Ts	0.0
Line Width	number	PDF 1.0	LW	w	1.0
Line Cap	integer (0-3)	PDF 1.0	LC	J	0 (butt cap)
Line Join	integer (0-3)	PDF 1.0	LJ	j	0 (miter join)
Miter Limit	number	PDF 1.0	ML	M	10.0
Dash pattern	array and number	PDF 1.0	D	d	[] 0 (solid undashed line)
Rendering Intent	name	PDF 1.3	RI	ri	<i>RelativeColorimetric</i>
Stroke Adjustment	boolean	PDF 1.2	SA	-	false
Blend Mode	name or array (<i>array deprecated in PDF 2.0</i>)	PDF 1.4	BM	-	<i>Normal</i>
Soft Mask	dictionary or name	PDF 1.4	SMask	-	<i>None</i>
Constant Alpha	number	PDF 1.4	ca, CA	-	1.0 (fully opaque)
Alpha Is Source	boolean	PDF 1.4	AIS	-	false
Black Point Compensation	name	PDF 2.0	UseBlackPtComp	-	<i>Default. Values are ON, OFF and Default.</i>
OverPrint	boolean	PDF 1.3	op, OP	-	false
OverPrint Mode	number	PDF 1.3	OPM	-	0
Black Generation	function or name	PDF 1.2	BG, BG2	-	<i>implementation dependent</i>
UnderColor Removal	function or name	PDF 1.2	UCR, UCR2	-	<i>implementation dependent</i>
Transfer function	function, name, or array	PDF 1.2	TR, TR2	-	<i>implementation dependent</i>
HalfTone	dictionary, stream, or name	PDF 1.2	HT	-	<i>implementation dependent</i>
HalfTone Origin	array (2 numbers, <i>point</i>)	PDF 2.0	HTO	-	<i>implementation dependent</i>
Flatness tolerance	number	PDF 1.0	FL	i	1.0 (output device pixels)
Smoothness tolerance	number	PDF 1.3	SM	-	<i>implementation dependent</i>

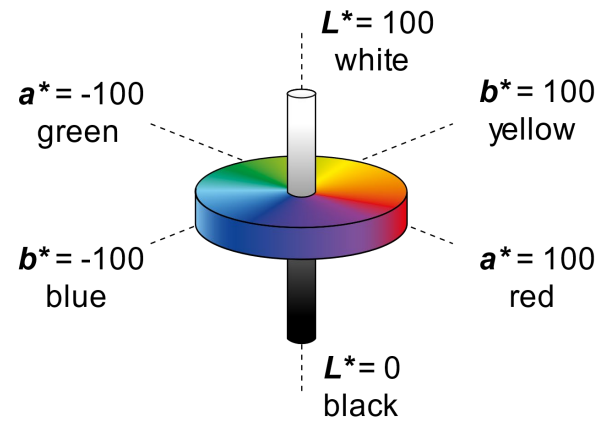


Annotations (28)

Subtype	Version	Description
Caret	PDF 1.5	Caret mark, indicating presence of text edit.
Circle	PDF 1.3	Ellipse-shaped markup.
FileAttachment	PDF 1.3	File attachment linked to a file specification dictionary.
FreeText	PDF 1.3	Displays free (variable) text directly on top of the page as a callout.
Highlight	PDF 1.3	Highlight-style annotation. Highlight
Ink	PDF 1.3	Freehand "scribble" (arbitrary disjoint paths).
Line	PDF 1.3	Single straight line, with caption, leader lines, measurement.
Polygon	PDF 1.5	Display closed polygons, with lines or curves and various line ending styles.
PolyLine	PDF 1.5	Polyline annotation, with lines or curves (not closed) with various line ending styles.
Projection	PDF 2.0	Comments within 3D environments.
Redact	PDF 1.7	Redaction annotation for content identification that is to be removed.
Sound <i>(PDF 2.0 deprecated)</i>	PDF 1.2	Sound annotation, with associated text. Use RichMedia annotation instead.
Square	PDF 1.3	Rectangular markup.
Squiggly	PDF 1.4	Squiggly-underline markup. Squiggly
Stamp	PDF 1.3	Rubber stamp style annotation.
StrikeOut	PDF 1.3	Strikethrough annotation (strikethrough)
Text	PDF 1.0	"Sticky note" style annotation. Does not rotate or scale with page.
Underline	PDF 1.3	Underline markup. Underline
3D	PDF 1.6	3D artwork using U3D or PRC 3D data formats.
Link	PDF 1.0	Hyperlink to destination in a PDF or perform an action (e.g. URL).
Movie <i>(PDF 2.0 deprecated)</i>	PDF 1.2	Movie annotation. Use RichMedia annotation instead.
Popup	PDF 1.3	Popup annotation. Must be used with markup annotations.
PrinterMark	PDF 1.4	Printer's marks such as registration targets, color bars, cut marks, etc.
RichMedia	PDF 2.0	RichMedia content such as 3D, audio or video.
Screen	PDF 1.5	Region of a page where media clips are played, with rendition actions.
TrapNet <i>(PDF 2.0 deprecated)</i>	PDF 1.3	Defines any page trapping. Only one per page. Must be last annotation on a page.
Watermark	PDF 1.6	Fixed size and position watermark annotation.
Widget	PDF 1.2	Widget annotations for field appearances on interactive forms.

Color Spaces (11)

	Color Space	Comp.	Version	Type	PDF object / description
Device (3)	Device Gray	1	PDF 1.1	name	<ul style="list-style-type: none"> <code>/DeviceGray</code> Additive color space
	Device RGB	3	PDF 1.0	name	<ul style="list-style-type: none"> <code>/DeviceRGB</code> Additive color space
	Device CMYK	4	PDF 1.1	name	<ul style="list-style-type: none"> <code>/DeviceCMYK</code> Subtractive color space
CIE-Based Color Spaces (4)	Calibrated Gray	1	PDF 1.1	array	<ul style="list-style-type: none"> <code>[/CalGray dict]</code> <code><< /WhitePoint [X_W 1.0 Z_W] /BlackPoint [X_B Y_B Z_B] /Gamma g >></code>
	Calibrated RGB	3	PDF 1.1	array	<ul style="list-style-type: none"> <code>[/CalRGB dict]</code> <code><< /WhitePoint [X_W 1.0 Z_W] /BlackPoint [X_K Y_K Z_K] /Gamma [G_R G_G G_B] /Matrix [... 9 numbers ...] >></code>
	L*a*b*	3	PDF 1.1	array	<ul style="list-style-type: none"> <code>[/Lab dict]</code> <code><< /WhitePoint [X_W 1.0 Z_W] /BlackPoint [X_B Y_B Z_B] /Range [a_{min} a_{max} b_{min} b_{max}] >></code> Default Range is <code>[-128 127 -128 127]</code>. $0.0 \leq L^* \leq 100$.
	ICC based	1,3,4	PDF 1.3	array	<ul style="list-style-type: none"> <code>[/ICCBased stream]</code> Additional stream dictionary entries for <code>ICCBased</code>: <code><< /N n /Alternate altCS /Range [... 2Xn numbers ...] ... >></code>
Special Color Spaces (4)	Separation	1	PDF 1.2	array	<ul style="list-style-type: none"> <code>[/Separation spotname altCS tintTransform]</code> <code>spotname</code>: All, None, Cyan, Magenta, Yellow, Black, or custom. <code>altCS</code>: any device or CIE-based colour space with <i>m</i> components. <code>tintTransform</code>: PDF function object with $1 \text{ in} \rightarrow m \text{ out}$. Treated as subtractive color space: $0.0 \text{ (lightest)} \leq \text{tint} \leq 1.0 \text{ (darkest)}$
	Device N	N	PDF 1.3	array	<ul style="list-style-type: none"> <code>[/DeviceN [spot1 ... spotN] altCS tintTransform attributes]</code> <code>[spot1 ... spotN]</code>: an array containing <i>N</i> names of the spot colors <code>altCS</code>: any device or CIE-based colour space with <i>m</i> components. <code>tintTransform</code>: PDF function object with $N \text{ in} \rightarrow m \text{ out}$. <code>attributes</code>: optional attributes dictionary. <code>/Subtype</code> DeviceN or NChannel Treated as subtractive color space: $0.0 \text{ (lightest)} \leq \text{tint}_i \leq 1.0 \text{ (darkest)}$
	Indexed	1-256	PDF 1.1	array	<ul style="list-style-type: none"> <code>[/Indexed baseCS hival lookup]</code> <code>baseCS</code>: any device or CIE-based colour space or (PDF 1.3) a Separation or DeviceN space, but not a Pattern or another Indexed color space. $0 \leq \text{hival} \leq 255$ <code>lookup</code> is a byte string (PDF 1.2) or stream which is $\text{hival} \times m$ bytes, where <i>m</i> is the number of components (channels) in <code>baseCS</code>
	Pattern	n/a	PDF 1.2	array	<ul style="list-style-type: none"> <code>[/Pattern baseCS]</code>



Fonts

	Subtype	Description
Type 0	Type0	A composite font — a font composed of glyphs from a descendant CIDFont . (PDF 1.2)
Type 1	Type1	A simple font that defines glyphs using Type 1 (PostScript based) font technology
	MMType1	A multiple master font — an extension of Type 1 fonts that allows generation of a wide variety of typeface styles from a single font.
Type 3	Type3	A simple font where glyph descriptions are PDF content streams defined in the CharProcs array. Each content stream must start with either the <code>d0</code> or <code>d1</code> operator.
TrueType	TrueType	A simple font based on TrueType or OpenType.
CIDFont	CIDFontType0	A CIDFont whose glyph descriptions are based on CFF font technology. Cannot be used with <code>Tf</code> operator. (PDF 1.2)
	CIDFontType2	A CIDFont whose glyph descriptions are based on TrueType glyph technology. Cannot be used with <code>Tf</code> operator. (PDF 1.2)

Document Catalog Names name-trees

Key	Version	String maps to...
AlternatePresentations <i>(deprecated in PDF 2.0)</i>	PDF 1.4	Alternate presentations.
AP	PDF 1.3	Annotation appearances.
Dests	PDF 1.2	Destinations.
EmbeddedFiles	PDF 1.4	File specifications for embedded files.
IDS	PDF 1.3	ID strings mapped to Web Capture content sets.
JavaScript	PDF 1.3	Document-level ECMAScript actions.
Pages	PDF 1.3	Visible pages for use with interactive forms.
Renditions	PDF 1.5	Rendition objects.
Templates	PDF 1.3	Invisible (template) pages for use with forms.
URLS	PDF 1.3	URLs mapping to Web Capture content sets.

Resource dictionary objects

Key	Version	Type	Description
ColorSpace	PDF 1.0	dictionary	Names of a device-dependent color space, or color space array objects.
ExtGState	PDF 1.0	dictionary	Graphic state parameter dictionaries.
Font	PDF 1.0	dictionary	Font dictionaries.
Pattern	PDF 1.0	dictionary	Pattern objects.
ProcSet	PDF 1.0	array	Pre-defined PostScript procedure set names. (Deprecated in PDF 1.4)
Properties	PDF 1.2	dictionary	Property list dictionaries for Marked Content.
Shading	PDF 1.3	dictionary	Shading dictionaries.
XObject	PDF 1.0	dictionary	Form and Image XObjects.