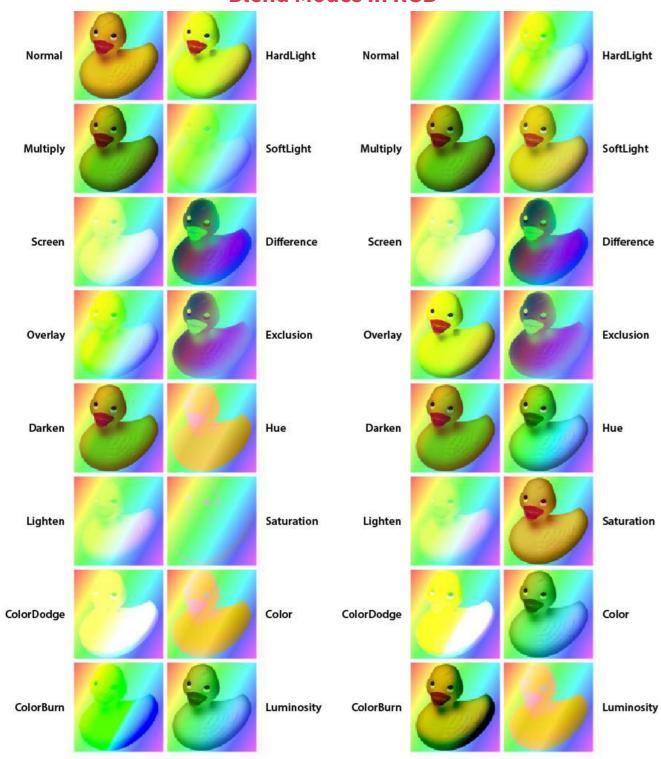
#### **PDF Association Cheat Sheet - Blend Modes**

#### **Blend Modes in RGB**

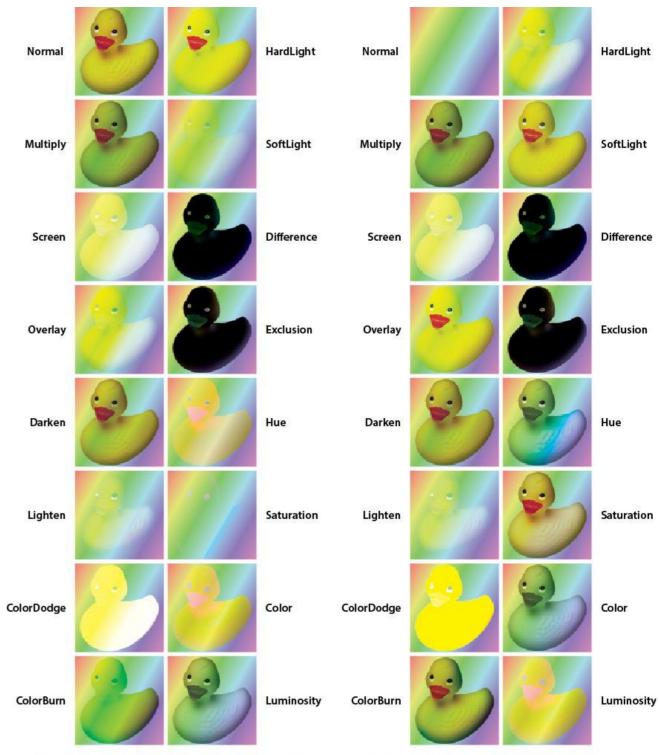


Duck in foreground, rainbow in background

Rainbow in foreground, duck in background

Separable Blend Modes (12)	Non-separable Blend Modes (4)
Normal (or Compatible, deprecated in PDF 2.0), Multiply, Screen, Overlay, Darken, Lighten, ColorDodge, ColorBurn, HardLight, SoftLight, Difference, Exclusion	Hue, Saturation, Color, Luminosity
Only Difference and Exclusion separable Blend Modes are <a href="mailto:not">not</a> white-preserving and thus cannot be used for blending spot colors.	_

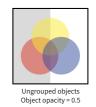




Duck in foreground, rainbow in background



Ungrouped objects Object opacity = 1.0



Rainbow in foreground, duck in background



Transparency group
Object opacity = 0.5
Group opacity = 1.0
Blend mode = HardLight

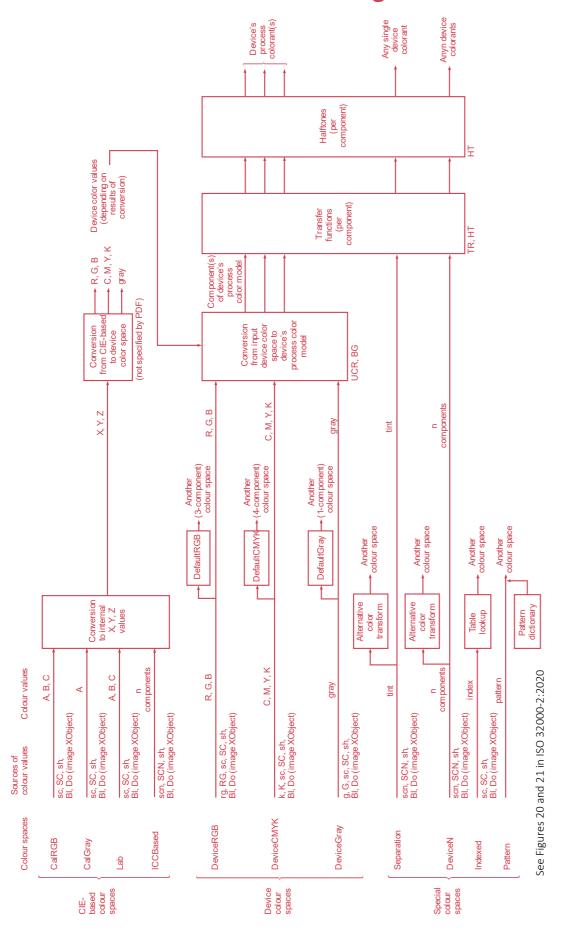


Object opacity = 1.0 Group opacity = 0.5 Blend mode = **Normal** 



## PDF Association Cheat Sheet - PDF Color Processing

## **PDF Color Processing**



## **Approximating sRGB with CalRGB**

See Annex A.8 in ISO 23504-1:2020 (PDF/R)

# **Fragment Identifiers**

https://labs.pdfa.org/FragmentTest.pdf#page=2&comment=abc&zoom=200

Object identifiers	
<pre>page=pagenum</pre>	Open to specified page (≥ 1).
nameddest=name	Open to specified named destination.
structelem=structID	Open to specified <b>ID</b> within <b>StructElem</b> dictionary, or first page.
comment=commentID	Open to specified annotation defined by <b>NM</b> key. Must be <i>after</i> any other object identifier parameters.
ef=name	Open the specified file from the <b>EmbeddedFiles</b> name tree.

<b>Open parameters</b> – processed <i>after</i> object	identifiers
<pre>zoom=scale zoom=scale,left,top</pre>	Open with specified zoom $scale$ (where 100 = 100%). $left$ and $top$ are optional coordinates from top left corner of page.
<pre>view=XYZ,left,top,scale view=Fit view=FitH,top view=FitV,left view=FitR,left,bottom,right,top view=FitB view=FitBH,top view=FitBV,left</pre>	Open specified destination as the view, where coordinates are from top left corner of page.
<pre>viewrect=left,top,width,height</pre>	Open with specified window view rectangle, where coordinates are from top left corner of page.
<pre>highlight=left,right,top,bottom</pre>	Open with specified rectangle highlighted, where coordinates from top left corner of page.
search= "wordlist"	Select first matching word in SPACE (%20) separated wordlist. Quotes are required around wordlist.
fdf=uri	Import FDF or XFDF. $uri$ is relative or absolute. Must be last.

See Annex 0 in ISO 32000-2:2020 or RFC 8118.



#### PDF Association Cheat Sheet - PDF Color Processing

## **PDF Function objects**

m = number of input values  $\rightarrow n$  = number of output values:  $\{y_0, y_1, \dots, y_n\} = f(x_1, x_2, \dots, x_m)$ 

Inputs are clipped to nearest boundary.  Range array Required for Type 0 and Type 4. Optional for Type 2 and Type 3.  Prype 0 Sampled function (stream, PDF 1.2, §7.10.2)  Size array Required. $m$ positive integers. Number of components in each input $m$ dimension.  BitsPerSample integer Required. $m$ positive integers. Number of components in each input $m$ dimension.  BitsPerSample integer Optional. $m$ or $m$ numbers. Linear output mapping.  Decode array Optional. $m$ numbers. Linear output mapping.  Decode array Optional. $m$ numbers. Linear output mapping.  Exponential function (dictionary, PDF 1.3, §7.10.3)  Exponential interpolation of 1 input value to $m$ output values: $m$ of $m$ output values: $m$ optional. $m$ numbers for $m$ when $m$ = 0.0. Default = [0.0] C1 array Optional. $m$ numbers for $m$ when $m$ = 1.0. Default = [1.0] N number Required. Interpolation exponent.  Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of $m$ 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain_0 Domain_1].  Key Type Description  Functions array Required. $m$ Positive integers. Number $m$ array $m$ Required. $m$ or $m$ array $m$ Required. $m$ of $m$ array $m$ Required. $m$ of $m$ or $m$ array $m$ of $m$ or $m$ of $m$ or									
Pomain array Always required 2 × $m$ numbers, where Domain $_{2^m}$ ≤ Domain $_{2^m}$ 1. Inputs are clipped to nearest boundary. Optional for Type 0 and Type 4. 2 × $n$ numbers, where Range $_{2^m}$ ≤ Range $_{2^m}$ 1. Output optional for Type 2 and Type 3. Is clipped to nearest boundary when present.  Type 0 Sampled function (stream, PDF 1.2, \$7.10.2)	Commo	on Key		Desci	Description				
Inputs are clipped to nearest boundary.   Inputs are clipped to nearest boundary.   2 x n numbers, where Range   Ra	Functio	nType	integer	Alway	/s requi	ired			0, 2, 3 or 4.
Type 0 Sampled function (stream, PDF 1.2, §7.10.2)  Size	Domain	l	array	Alway	/s requi	ired			
Type 0 Sampled function (stream, PDF 1.2, §7.10.2)    Size   Size   Array   Required. m positive integers. Number of components in each input (m) dimension.    BitsPerSample   Integer   Required. 1, 2, 4, 8, 12, 16, 24, or 32.     Order   Integer   Optional. 1 or 3. Interpolation order. Default = 1.     Encode   Array   Optional. 2 × m numbers. Linear output mapping.	Range		array						$2 \times n$ numbers, where $Range_{2i} \le Range_{2i+1}$ . Output is clipped to nearest boundary when present.
(stream, PDF 1.2, §7.10.2)         Key       Type       Description         BitsPerSample       Interpolation of the positive integers. Number of components in each input (m) dimension.         BitsPerSample       Interpolation order. Default = 1.         Encode       array       Optional. 1 or 3. Interpolation order. Default = 1.         Encode       array       Optional. 2 × m numbers. Linear input mapping.         Exponential function (dictionary, PDF 1.3, §7.10.3)       Key Type Description         Key Type Description         C0 array Optional. n numbers for y <sub>j</sub> when x = 0.0. Default = [0.0]         C1 array Optional. n numbers for y <sub>j</sub> when x = 1.0. Default = [1.0]         N number Required. Interpolation exponent.         Stitching function (dictionary, PDF 1.3, §7.10.4)         Stitching of subdomains of k 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain_0 Domain_1].         Key Type Description         Functions array Required. (k - 1) numbers, ordered by increasing value. Encode array Required. (k - 1) numbers, ordered by increasing value. Encode array Required. (k - 1) numbers, ordered by increasing value. Encode array Required. (k - 1) numbers, ordered by inc	Туре				Descr	iption			
Size   Required. m positive integers. Number of components in each input (m) dimension.  BitsPerSample   integer   Required. 1, 2, 4, 8, 12, 16, 24, or 32.  Order   integer   Optional. 1 or 3. Interpolation order. Default = 1.  Encode   array   Optional. 2 × m numbers. Linear input mapping.  Decode   array   Optional. 2 × n numbers. Linear output mapping.  Exponential function (dictionary, PDF 1.3, §7.10.3)  Exponential interpolation of 1 input value to n output values:  y <sub>j</sub> = CO <sub>j</sub> + x <sup>N</sup> × (C1 <sub>j</sub> − CO <sub>j</sub> ) for 0 ≤ j ≤ n  Key   Type   Description  CO   array   Optional. n numbers for y <sub>j</sub> when x = 0.0. Default = [0.0]  C1   array   Optional. n numbers for y <sub>j</sub> when x = 1.0. Default = [1.0]  N   number   Required. Interpolation exponent.  Stitching of subdomains of k 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain₀ Domain₁].  Key   Type   Description  Function   Sarray   Required. k 1-input functions   Bounds   array   Required. k 1-input functions   Bounds   array   Required. k 1-input functions   Required. 1 × k numbers  Stream contains code written in a small subset of PostScript™. Nesting depth for {} limited to 255.  Arithmetic   abs   add   atan   ceiling   cos   cvr   div   exp   floor   div   n   log   mod   mul   neg   round   sin   sqrt   sub   truncate	Type 0	_			<i>m</i> -dim	ension	al loo	kup tabl	e, where each entry has <i>n</i> components.
Size   array   Required. m positive integers. Number of components in each input (m) dimension.  BitsPerSample   integer   Required. 1, 2, 4, 8, 12, 16, 24, or 32.  Order   integer   Optional. 1 or 3. Interpolation order. Default = 1.  Encode   array   Optional. 2 × m numbers. Linear input mapping.  Decode   array   Optional. 2 × m numbers. Linear output mapping.  Exponential function (dictionary, PDF 1.3, §7.10.3)  Key   Type   Description  C0   array   Optional. n numbers for y <sub>j</sub> when x = 0.0. Default = [0.0]    C1   array   Optional. n numbers for y <sub>j</sub> when x = 1.0. Default = [1.0]    N   number   Required. Interpolation exponent.  Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of k 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain₀ Domain₁].  Key   Type   Description    Functions   array   Required. (k - 1) numbers, ordered by increasing value.  Encode   array   Required. 2 × k numbers  Stream contains code written in a small subset of PostScript™. Nesting depth for {} limited to 255.  Arithmetic   abs add atan ceiling cos evi evr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate		'	-	,	Key			Туре	Description
Type 2 Exponential function (dictionary, PDF 1.3, §7.10.4)  Exponential function (dictionary, PDF 1.3, §7.10.5)  Exponential function (stream, PDF 1.3, §7.10.5)  Exponential function (dictionary, PDF 1.3, §7.10.5)  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^\mathbf{N} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^\mathbf{N} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential function (dictionary, PDF 1.3, §7.10.3)  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^\mathbf{N} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential function (Optional, $n$ numbers for $n$ output values: $n$ output		\$7.10.	2)		Size		,	array	
Encode array Optional. $2 \times m$ numbers. Linear input mapping.  Decode array Optional. $2 \times n$ numbers. Linear output mapping.  Exponential function (dictionary, PDF 1.3, §7.10.3)  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Key Type Description  C0 array Optional. $n$ numbers for $y_j$ when $x = 0.0$ . Default = $\begin{bmatrix} 0 & 0 \end{bmatrix}$ C1 array Optional. $n$ numbers for $y_j$ when $x = 1.0$ . Default = $\begin{bmatrix} 1 & 0 \end{bmatrix}$ N number Required. Interpolation exponent.  Stitching of subdomains of $k$ 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is $\begin{bmatrix} \mathbf{Domain_0 Domain_1} \end{bmatrix}$ .  Key Type Description  Functions array Required. $k$ 1-input functions  Bounds array Required. $k$ 1-input functions  Required. $k$ 1-input functions  Stream contains code written in a small subset of PostScript <sup>TM</sup> .  Nesting depth for {} limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate					BitsP	erSam	<b>ple</b> i	integer	Required. 1, 2, 4, 8, 12, 16, 24, or 32.
Fype 2 Exponential function (dictionary, PDF 1.3, §7.10.3)  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential function (dictionary, PDF 1.3, §7.10.4)  Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of $k$ 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is $[\mathbf{Domain_0} \ \mathbf{Domain_1} \ ]$ .  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Exponential interpolation of 1 input value to $n$ output values: $n$ of $n$ of $n$ of $n$ output values: $n$ of $n$ output values: $n$ of $n$ output values: $n$ of $n$ of $n$ output values: $n$ of $n$ of $n$ of $n$ of $n$ output values: $n$ of $n$ of $n$ output values: $n$ of $n$ output values: $n$ of $n$ of $n$ output values: $n$ of $n$ of $n$ of $n$ output values: $n$ of $n$ of $n$ output values: $n$ of $n$ output values					Orde	r	i	integer	Optional. 1 or 3. Interpolation order. Default = 1.
Type 2 Exponential function (dictionary, PDF 1.3, §7.10.3)  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Stitching function (dictionary, PDF 1.3, §7.10.4)  Exponential interpolation of 1 input value to $n$ output values: $y_j = \mathbf{C0}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{C0}_j)$ for $0 \le j \le n$ Stitching of 2 array Optional. $n$ numbers for $y_j$ when $x = 0.0$ . Default = $[0.0]$ N number Required. Interpolation exponent.  Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of $k$ 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is $[\mathbf{Domain_0 Domain_1}]$ .  Key Type Description  Functions array Required. $k$ 1-input functions  Bounds array Required. $k$ 1-input functions  Bounds array Required. $k$ 1-input functions  Stream contains code written in a small subset of PostScript™. Nesting depth for $\{\}$ limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate					Enco	de		array	Optional. $2 \times m$ numbers. Linear input mapping.
$y_j = \mathbf{CO}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{CO}_j) \text{ for } 0 \leq j \leq n$ $y_j = \mathbf{CO}_j + x^{\mathbf{N}} \times (\mathbf{C1}_j - \mathbf{CO}_j) \text{ for } 0 \leq j \leq n$ $\mathbf{Key}  \mathbf{Type}  \mathbf{Description}$ $\mathbf{C0}  \text{array}  \text{Optional. } n \text{ numbers for } y_j \text{ when } x = 0.0. \text{ Default } = [\ 0.\ 0\ ]$ $\mathbf{C1}  \text{array}  \text{Optional. } n \text{ numbers for } y_j \text{ when } x = 1.0. \text{ Default } = [\ 1.\ 0\ ]$ $\mathbf{N}  \text{number}  \mathbf{Required. Interpolation exponent.}$ $\mathbf{Stitching of subdomains of } k \text{ 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [\ \mathbf{Domain_0 Domain_1}\ ].}$ $\mathbf{Key}  \mathbf{Type}  \mathbf{Description}$ $\mathbf{Functions}  \mathbf{array}  \mathbf{Required. } k \text{ 1-input functions}$ $\mathbf{Bounds}  \mathbf{array}  \mathbf{Required. } k \text{ 1-input functions}$ $\mathbf{Bounds}  \mathbf{array}  \mathbf{Required. } (k-1) \text{ numbers, ordered by increasing value.}$ $\mathbf{Encode}  \mathbf{array}  \mathbf{Required. } 2 \times k \text{ numbers}$ $\mathbf{Stream contains code written in a small subset of PostScript}^{\mathbf{IM}}.$ $\mathbf{Nesting depth for } \{\} \text{ limited to 255.}$ $\mathbf{Arithmetic}  \mathbf{abs} \text{ add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate}$					Deco	de		array	Optional. $2 \times n$ numbers. Linear output mapping.
Type 3 Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of k 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain₀ Domain₁].  Key Type Description Functions array Required. k 1-input functions Bounds array Required. (k − 1) numbers, ordered by increasing value. Encode array Required. 2 × k numbers  Stream contains code written in a small subset of PostScript™. Nesting depth for {} limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate	7,7	(dictio	nary, PDF		_		$y_j$	$_{i}=\mathbf{C0}_{j}$	$+ x^{\mathbf{N}} \times (\mathbf{C}1_{j} - \mathbf{C}0_{j})$ for $0 \le j \le n$
Type 3 Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of k 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain₀ Domain₁].  Key Type Description Functions array Required. k 1-input functions Bounds array Required. (k − 1) numbers, ordered by increasing value. Encode array Required. 2 × k numbers  Stream contains code written in a small subset of PostScript™. Nesting depth for {} limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate					CO	array	,	Optiona	al. $n$ numbers for $y_j$ when $x = 0.0$ . Default = [ 0 . 0 ]
Stitching function (dictionary, PDF 1.3, §7.10.4)  Stitching of subdomains of k 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [Domain <sub>0</sub> Domain <sub>1</sub> ].  Key Type Description Functions array Required. k 1-input functions Bounds array Required. (k - 1) numbers, ordered by increasing value. Encode array Required. 2 × k numbers  Stream contains code written in a small subset of PostScript <sup>TM</sup> .  Nesting depth for {} limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate					<b>C1</b>	array	,	Optiona	al. $n$ numbers for $y_j$ when $x$ = 1.0. Default = [ 1.0 ]
function. Since resulting stitching function is a 1-input function, the domain is  [Domain₀ Domain₁].  Key Type Punctions Functions Bounds Function Functio					N	numl	ber	Require	d. Interpolation exponent.
Functions array Required. $k$ 1-input functions  Bounds array Required. $(k-1)$ numbers, ordered by increasing value.  Encode array Required. $2 \times k$ numbers  Stream contains code written in a small subset of PostScript <sup>TM</sup> .  Nesting depth for $\{\}$ limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate	Type 3	(dictio	nary, PDF		Stitching of subdomains of $k$ 1-input functions to produce a single new 1-input function. Since resulting stitching function is a 1-input function, the domain is [ Domain <sub>0</sub> Domain <sub>1</sub> ].				
Bounds array Required. $(k-1)$ numbers, ordered by increasing value. Encode array Required. $2 \times k$ numbers  Stream contains code written in a small subset of PostScript <sup>TM</sup> . Nesting depth for $\{\}$ limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate					Key		Туре	Desc	cription
Fype 4 PostScript calculator function (stream, PDF 1.3, §7.10.5)  Encode array Required. 2 × k numbers  Stream contains code written in a small subset of PostScript™. Nesting depth for {} limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate									·
Type 4 PostScript calculator function (stream, PDF 1.3, §7.10.5)  Stream contains code written in a small subset of PostScript™.  Nesting depth for {} limited to 255.  Arithmetic abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate									
function (stream, PDF 1.3, §7.10.5)  Nesting depth for {} limited to 255.  abs add atan ceiling cos cvi cvr div exp floor idiv ln log mod mul neg round sin sqrt sub truncate					Enco	de	array	y Requ	uired. $2 \times k$ numbers
(\$7.10.5)  Antimetic abs add atam cerring cos evi evi div exp floor idiv ln log mod mul neg round sin sqrt sub truncate	Type 4	functi	on						•
Relational, and bitshift eq false ge gt le lt ne		1 -		,	Arith	metic		exp	floor idiv ln log mod mul neg
					Relat	ional,		and	bitshift eq false ge gt le lt ne

not or true xor

copy exch dup index pop roll

if ifelse

References to ISO 32000-2:2020 including resolved errata at <a href="https://pdf-issues.pdfa.org">https://pdf-issues.pdfa.org</a>

Stack

Boolean, bitwise

Conditional



## **Patterns and Shadings**

	T	Description							
	nType	-	Description						
1	Tiling pattern	Repeating patt	Repeating pattern cell using PDF graphic operators in a content stream.						
(stream, Table 74)		Кеу	Туре	Value (required unless stated)					
		Туре	name	Pattern					
		PatternType	Integer	1					
		PaintType	integer	<pre>1 = Colored tiling pattern. In a content stream,     reference via a named Pattern resource:         /Pattern cs         /P1 scn 2 = Uncolored tiling pattern. Define as a     ColorSpace resource such as:         [ /Pattern colorspace ]</pre>					
		TilingType	integer	<ul><li>1 = Constant spacing.</li><li>2 = No distortion.</li><li>3 = Constant spacing and faster tiling.</li></ul>					
	Overlapping tiles	BBox	rectangle	Bounding box (clipped).					
	are implementation	XStep	number	Horizontal spacing in pattern space.					
	dependent.	YStep	number	Vertical spacing in pattern space.					
	асретиет.	Resources	dictionary	Resources needed by pattern cell content.					
		Matrix	matrix	Optional. Pattern matrix. Default: identity.					
2	Shading pattern	Smooth gradie	nt fills painted	with the <b>sh</b> operator.					
	(dictionary, PDF 1.3,	Key	Туре	Value (required unless stated)					
	Table 75)	Туре	name	Pattern					
		PatternType	integer	2					
		Shading	dictionary or stream	Shading object.					
		Matrix	matrix	Optional. Pattern matrix. Default: identity.					

Shadin	ng Types	
Type 1	Function-based	dictionary
Type 2	Axial	dictionary
Type 3	Radial	dictionary
Type 4	Free-form Gouraud-shaded triangle mesh	stream
Type 5	Lattice-form Gouraud-shaded triangle mesh	stream
Type 6	Coons patch mesh	stream
Type 7	Tensor-product patch mesh	stream

See §8.7.4.5 in ISO 32000-2:2020