

PDF Standard 14 Fonts

These fonts are guaranteed to be available in all PDF viewers

Times-Roman

The quick brown fox jumps over the lazy dog.

Times-Bold

The quick brown fox jumps over the lazy dog.

Times-Italic

The quick brown fox jumps over the lazy dog.

Times-BoldItalic

The quick brown fox jumps over the lazy dog.

Helvetica

The quick brown fox jumps over the lazy dog.

Helvetica-Bold

The quick brown fox jumps over the lazy dog.

Helvetica-Oblique

The quick brown fox jumps over the lazy dog.

Helvetica-BoldOblique

The quick brown fox jumps over the lazy dog.

Courier

The quick brown fox jumps over the lazy dog.

Courier-Bold

The quick brown fox jumps over the lazy dog.

Courier-Oblique

The quick brown fox jumps over the lazy dog.

Courier-BoldOblique

The quick brown fox jumps over the lazy dog.

Symbol

αβχδεφγηιφ ΑΒΧΔΕΦΓΗΙΩ 0123456789

ZapfDingbats

PDF Text Parameters Demonstration

Showcasing text state operators: Tc, Tw, Tz, TL, Ts, Tr, Tm

1. Font Size (Tf operator)

8pt 12pt 16pt 20pt 24pt

2. Character Spacing (Tc operator)

Tc=0 (default)

Tc=2

Tc = 5

Tc=1

3. Word Spacing (Tw operator)

Tw=0: Hello World Test

Tw=10: Hello World Test

Tw=20: Hello World Test

4. Horizontal Scaling (Tz operator)

Tz=50% (condensed)

Tz=100% (normal)

Tz=150% (expanded)

5. Text Leading (TL operator)

TL=12: Line one

Line two

Line three

TL=20: Line one

Line two

Line three

TL=30: Line one

Line two

Line three

6. Text Rise (Ts operator)

Normal^{superscript} Normal_{subscript} Normal

Chemical formula: H₂O Mathematical: x² + y² = z²

7. Text Rendering Mode (Tr operator)

Text

Text

Text

Fill (0)

Stroke (1)

FillStroke (2)

Invisible (3)

8. Text Matrix (Tm operator)

Normal

Rotated 15

Rotated -15

Skewed

Ellipsis

PDF Text Clipping Path Demonstration

Section 1: Text Clipping with Stripe Pattern

CLIP TEXT DIAG DOT

Section 2: Color Bands Effect

RAINBOW SUNSET

Section 3: FillClip & StrokeClip Modes

SHINE STROKE BOTH INVIS

Section 4: Concentric Circles & Radial Burst

WAVES BURST SPRAL

Section 5: Checkerboard & Crosshatch

CHECK CROSS BRICK

Section 6: Smooth Color Transitions

SMOOTH OCEAN
FOREST FIRE

Modes: Clip(7)=invisible clip, FillClip(4)=fill+clip, StrokeClip(5)=stroke+clip, FillStrokeClip(6)=both+clip

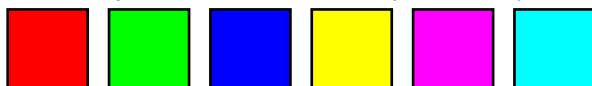
1. DeviceGray

Single component grayscale (0.0 = black, 1.0 = white)



2. DeviceRGB

Three components: Red, Green, Blue (each 0.0-1.0)



3. DeviceCMYK

Four components: Cyan, Magenta, Yellow, black (each 0.0-1.0)



4. CalGray (Calibrated Grayscale)

CIE-based grayscale with gamma correction (WhitePoint: D65)



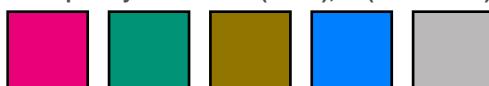
5. CalRGB (Calibrated RGB)

CIE-based RGB with gamma and color matrix (sRGB-like)



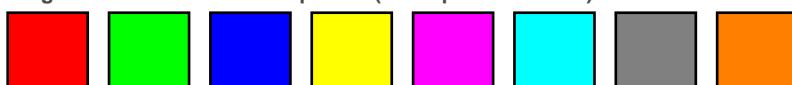
6. Lab (CIE L*a*b*)

Perceptually uniform: L* (0-100), a* (-128 to 127), b* (-128 to 127)



7. Indexed (Palette-based)

Single index into color lookup table (0-255 palette entries)



8. Separation (Spot Color)

Single tint for spot color 'PANTONE Orange' (0.0-1.0)



9. DeviceN (Multiple Spot Colors)

Multiple colorants: SpotBlue + SpotGreen (each 0.0-1.0)



PDF Line Dash Pattern Demonstration

Section 1: Basic Dash Patterns

Dash array defines on/off lengths, phase sets start offset



Solid [] phase 0



Dashes [10] phase 0



[5, 15] phase 0



Dotted [2, 4] phase 0



[15, 5] phase 0



Dash-dot [10,3,2,3]

Section 2: Phase Offset Effects

Same pattern [10, 5] with different phase values



phase 0



phase 5



phase 10

Section 3: Line Cap Styles with Dashes

Pattern [20, 10] with different cap styles (line width 6)



Butt cap (default)



Round cap



Projecting square

Section 4: Dash Patterns with Coordinate Transforms

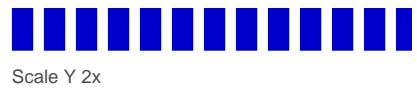
Transforms affect line rendering but dash pattern stays in user space



Rotation 15 deg



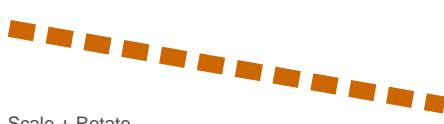
Scale X 1.5x



Scale Y 2x



Shear X



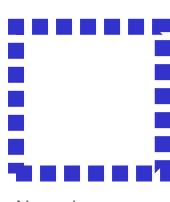
Scale + Rotate



Flip horizontal

Section 5: Transformed Shapes with Dash Patterns

Rectangles with different transforms and dash patterns



Normal



Rotated 20 deg



Scaled 1.3x0.7

Section 6: Complex Dash Patterns



Morse-like [20,5,5,5,5]



Railroad [1,8]



Fine dots [0.5,3]

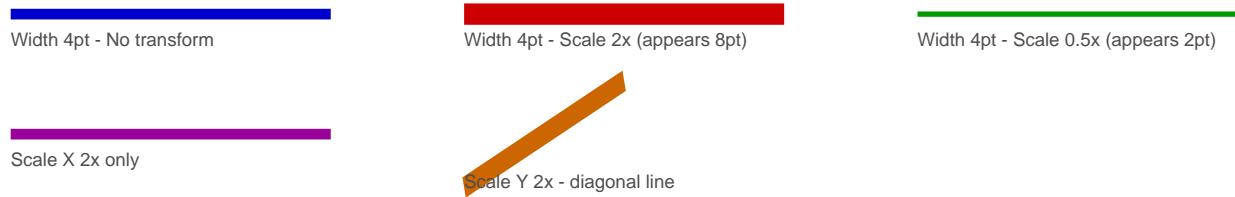
Note: Transforms affect the entire graphics state including line width.

Dash patterns are defined in user space units before transformation.

PDF Line Style Transform Demonstration

Section 1: Line Width Under Transforms

Line width is in user space - transforms affect rendered thickness

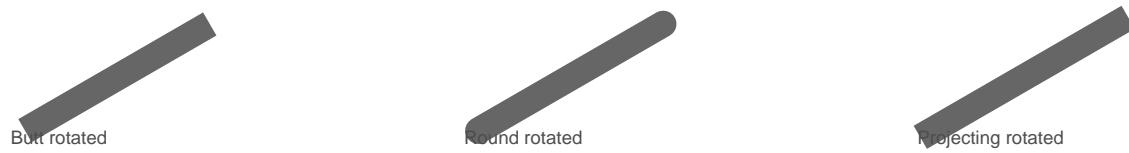


Section 2: Line Cap Styles

Butt (default), Round, and Projecting Square caps

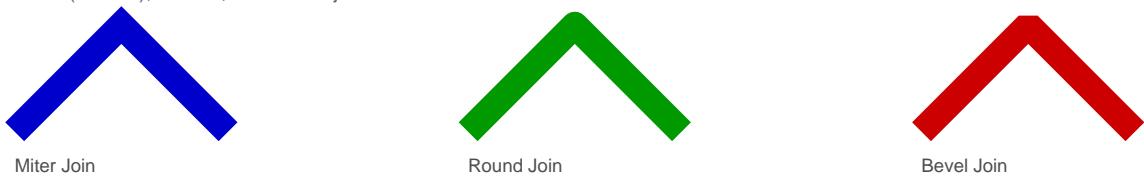


Line caps under 30-degree rotation

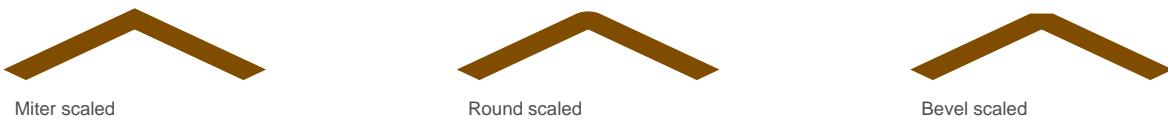


Section 3: Line Join Styles

Miter (default), Round, and Bevel joins at corners



Line joins under non-uniform scaling (X: 1.5, Y: 0.7)



Section 4: Combined Styles Under Complex Transforms

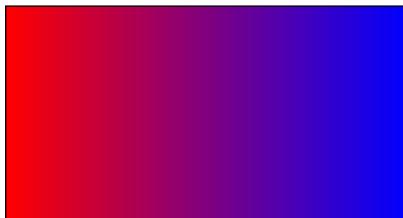
Triangles with different styles under rotation and shear



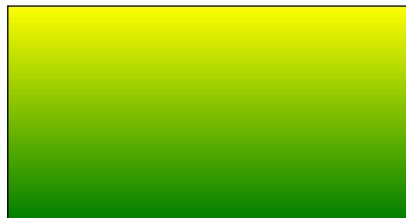
PDF Shading (Gradient) Demonstration

Type 2: Axial Shadings (Linear Gradients)

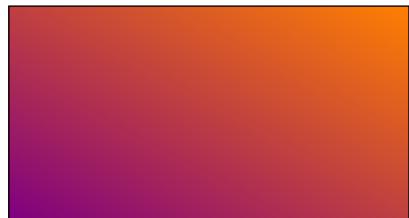
Linear color blend between two points. Coords: [x0, y0, x1, y1]



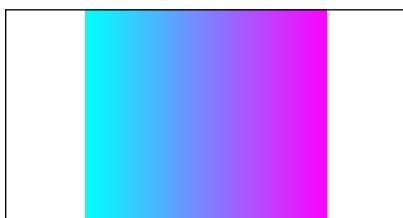
Horizontal (Red->Blue)



Vertical (Green->Yellow)



Diagonal (Purple->Orange)



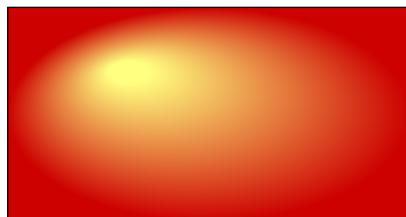
No Extend (Cyan->Magenta)

Type 3: Radial Shadings (Circular Gradients)

Circular color blend between two circles. Coords: [x0, y0, r0, x1, y1, r1]



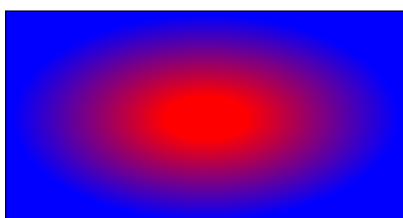
Concentric (White->Blue)



Spotlight (Yellow->Red)



From Center (Green)



Ring (Red->Blue)

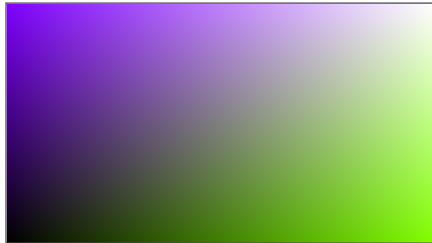
Note: Shadings use unit coordinate space [0,1] mapped via transformation matrix.
Extend flags control whether colors continue beyond gradient boundaries.

Advanced PDF Shading Demo - All 7 Types

PDF Specification Section 8.7.4 - Shading Dictionaries

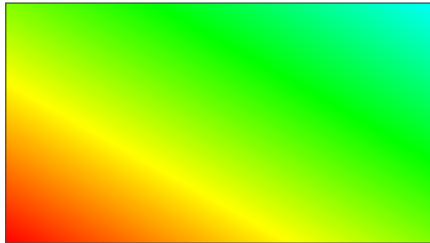
Dictionary-Based Shadings

Type 1: Function-Based



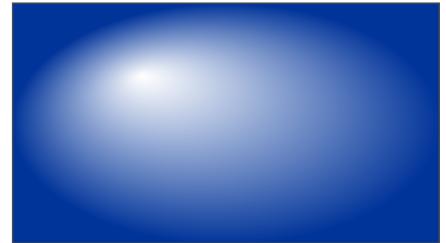
Color = $f(x, y)$

Type 2: Axial (Linear)



Gradient along axis

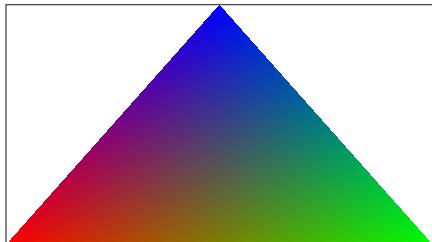
Type 3: Radial (Circular)



Gradient between circles

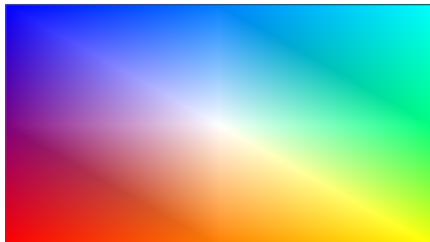
Gouraud-Shaded Triangle Meshes

Type 4: Free-Form Gouraud



Arbitrary triangle mesh

Type 5: Lattice Gouraud



Structured vertex grid

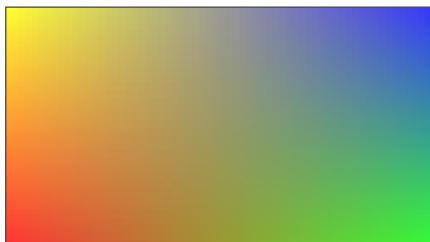
Bezier Patch Meshes

Type 6: Coons Patch



12 control points/patch

Type 7: Tensor-Product



16 control points/patch

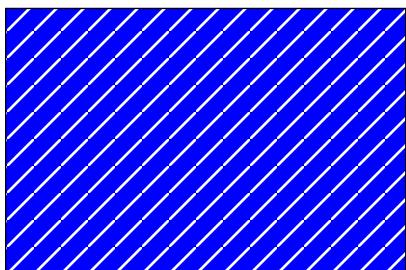
Notes:

- Types 1-3 use dictionary entries for shading parameters
- Types 4-7 use stream data for vertex/control point coordinates and colors
- All shadings use unit coordinate space [0,1] mapped via transformation matrix

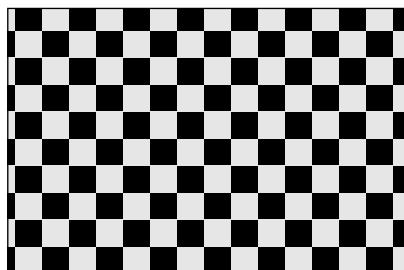
PDF Pattern Demonstration

Type 1: Tiling Patterns

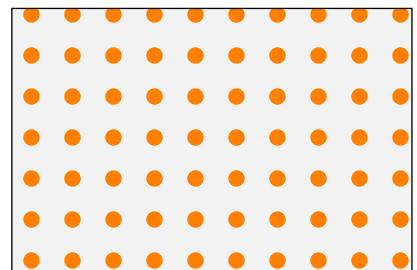
Small graphical figures (pattern cells) repeated at fixed intervals



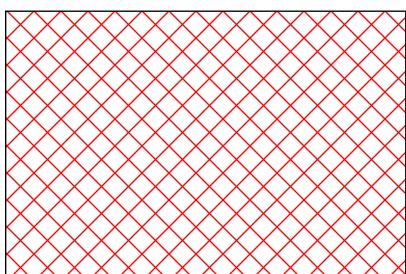
Diagonal Stripes (Colored)



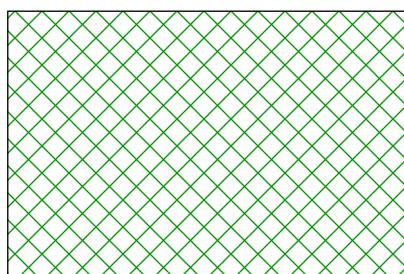
Checkerboard (Colored)



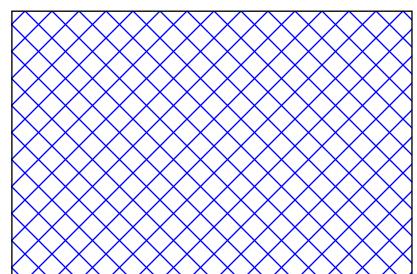
Polka Dots (Colored)



Crosshatch (Red)



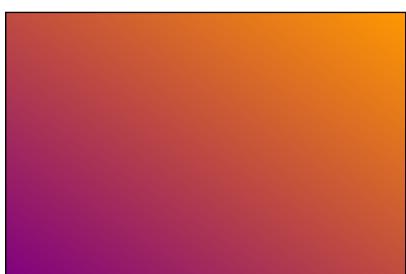
Crosshatch (Green)



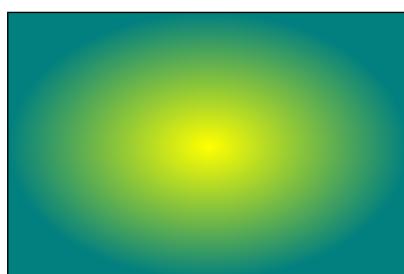
Crosshatch (Blue)

Type 2: Shading Patterns

Smooth color transitions (gradients) used as fill patterns



Axial Gradient Pattern



Radial Gradient Pattern

Note: Colored patterns (PaintType=1) specify their own colors.

Uncolored patterns (PaintType=2) use the current color from graphics state.