

Rendering Hints for EA

Color coding :

	To be supported for EA – Hints verified in current repo
	To be supported for EA - Hints verified in current repo with failure

Hint	Key	Value	Supported for EA?	Status
Rendering Hint	KEY_RENDERING	VALUE_RENDER_DEFAULT	Yes	Done
		VALUE_RENDER_SPEED	No	test/jdk/java/awt/MultipleGradientPaint/MultiGradientTest.java passes for OGL and Metal
		VALUE_RENDER_QUALITY	No	
Antialiasing	KEY_ANTIALIASING	VALUE_ANTIALIAS_DEFAULT	Yes	Done
		VALUE_ANTIALIAS_OFF	Yes	Done
		VALUE_ANTIALIAS_ON	Yes	Done. Test passed - jdk/sun/java2d/pipe/Test7027667.java java/awt/geom/Line2D/AALineTest.java Also verified using J2DDemo Some tests fail due to pixel accuracy tolerance. Also, some some combination with AA does not work. Being worked upon separately.
Text Antialiasing	KEY_TEXT_ANTIALIASING	VALUE_TEXT_ANTIALIAS_DEFAULT	Yes	Done. Works in Font2D
		VALUE_TEXT_ANTIALIAS_OFF	Yes	Done. Works in Font2D
		VALUE_TEXT_ANTIALIAS_ON	Yes	Done. Works in Font2D
		VALUE_TEXT_ANTIALIAS_GASP	No	Works in Font2D
		VALUE_TEXT_ANTIALIAS_LCD_HRGB	No	Works in Font2D
		VALUE_TEXT_ANTIALIAS_LCD_HBGR	No	Works in Font2D
		VALUE_TEXT_ANTIALIAS_LCD_VRGB	No	Works in Font2D
		VALUE_TEXT_ANTIALIAS_LCD_VBGR	No	Works in Font2D
Font Fractional metrics	KEY_FRACTIONALMETRICS	VALUE_FRACTIONALMETRICS_DEFAULT	Yes	Done. Works in Font2D
		VALUE_FRACTIONALMETRICS_OFF	Yes	Done. Works in Font2D
		VALUE_FRACTIONALMETRICS_ON	No	Works in Font2D
Dithering	KEY_DITHERING	VALUE_DITHER_DEFAULT	Yes	Dither option not present in Font2D, J2DDemo

		VALUE_DITHER_DISABLE	Yes	Dither option not present in Font2D, J2DDemo
		VALUE_DITHER_ENABLE	Yes	Dither option not present in Font2D, J2DDemo Test sun/java2d/marlin/OpenJDKFillBug uses this hint and test passes with metal pipeline
Interpolation	KEY_INTERPOLATION	VALUE_INTERPOLATION_NEAREST_NEIGHBOR	Yes	test/jdk/sun/java2d/pipe/InterpolationQualityTest.java This test passes for - Nearest Neighbor interpolation for both OGL and Metal. This test fails for - bilinear and bicubic interpolation - for both OGL and Metal. It is a test issue and will be addressed in JDK-8242562
		VALUE_INTERPOLATION_BILINEAR	Yes	test/jdk/sun/java2d/SunGraphics2D/DrawImageBilinear.java OGL = passed, metal = passed
		VALUE_INTERPOLATION_BICUBIC	No	This was decided to be a non-blocker for EA - and will be worked upon separately - JDK-8242351 test/jdk/sun/java2d/pipe/InterpolationQualityTest.java OGL = failed, metal = failed
Alpha interpolation	KEY_ALPHA_INTERPOLATION	VALUE_ALPHA_INTERPOLATION_DEFAULT	Yes	Works - tested by setting this value on a sample program. Test sun/java2d/marlin/OpenJDKFillBug passes with Metal
		VALUE_ALPHA_INTERPOLATION_SPEED	No	
		VALUE_ALPHA_INTERPOLATION_QUALITY	No	
Color Rendering	KEY_COLOR_RENDERING	VALUE_COLOR_RENDERER_DEFAULT	Yes	Works - tested by setting this value on a sample program. Test sun/java2d/marlin/OpenJDKFillBug.java passes with Metal
		VALUE_COLOR_RENDERER_SPEED	No	
		VALUE_COLOR_RENDERER_QUALITY	No	
Stroke Normalization control	KEY_STROKE_CONTROL	VALUE_STROKE_DEFAULT	Yes	Works - tested by setting this value on a sample program.
		VALUE_STROKE_NORMALIZE	No	Test test/jdk/sun/java2d/marlin/FlipBitTest.java passes with Metal
		VALUE_STROKE_PURE	No	
Image Scaling Hint	KEY_RESOLUTION_VARIANT	VALUE_RESOLUTION_VARIANT_DEFAULT	Yes	Works -Jtreg test passes test/jdk/java/awt/image/multiresolution/MultiResolutionRenderingHintsTest.java test/jdk/java/awt/image/MultiResolutionImageTest.java
		VALUE_RESOLUTION_VARIANT_BASE	No	
		VALUE_RESOLUTION_VARIANT_SIZE_FIT	No	
		VALUE_RESOLUTION_VARIANT_DPI_FIT	No	

	<p>KEY_TEXT_ANTIALIAS_LCD_CONTRAST</p> <p>(used private in sun.awt.SunHints)</p> <p>Actual hints to be used is</p> <p>KEY_TEXT_LCD_CONTRAST which is used in Font2D</p>	<p>INTKEY_AATEXT_LCD_CONTRAST</p>	<p>No</p>	<p>LCD Contrast value present in Font2D but since surface seems to be not opaque, even if antialiasing hints LCD_HBGR, LCD_HRGB, are used, the glyphs are rendered via Grayscale so LCD contrast is noop</p> <p>Standalone test written to use this hint is passing the contrast value in the hint to LCD text rendering</p> <p>test/jdk/javafx/swing/UIDefaults/6302464/bug6302464.java passes with Metal</p>