

# High Level Milestones

## High Level Milestones

Milestones	JIRA ID	Owner	Target Completion	Comments
Primitive rendering		Oracle /JetBrains		Implementation is done
Image rendering		JetBrains		Implementation is done (except for Bicubic interpolation - for which SW rendering fallback exists)
Text rendering		Oracle		Implementation is done
1st early access (EA-1)		Oracle /JetBrains	15 May 2020	Released
Stabilization and bug fixing		Oracle /JetBrains		In progress
IDE performance Testing		Oracle /JetBrains	TBD	
Execute JTREG tests and match current passrate		Oracle	TBD	Metal pipeline should pass all the same jtreg tests as OpenGL : i.e. no functional regressions
Pass all JCK tests		Oracle	TBD	
Functional complete with performance		Oracle /JetBrains	TBD	
2D Alias Review Start		Oracle /JetBrains	TBD	Lanai does not require reviews before pushing. Once we are functional complete, we should start reviews of the code to make sure it conforms to style /quality/etc expectations, as well as reviewing the code for correctness, robustness etc.

## Task List

All active issues (including tasks, subtasks and bugs) in Lanai project can be accessed with JBS filter : <https://bugs.openjdk.java.net/issues/?filter=37832>

## Early Access Release History

Early Access Release	Date	Contents
EA-1	15 May 2020	First EA release
EA-2	19 Jun 2020	Fixes on top of EA-1 <ul style="list-style-type: none"> <li>8247464: Memory Leak in MTLBlitLoops_CopyArea() method</li> <li>8247304: Use separate MTLCommandQueue for final blit and MTLDrawable</li> <li>8246495: Lanai: update AA clip info on GPU via compute shader</li> <li>8246454: Lanai: Create RenderPerf tests for rectangular and shape clips</li> <li>8242952: fixed MTLBlitLoops::replaceTextureRegion (add correct offset)</li> <li>8242354: support for bufImgOps (RescaleOp, LookupOp, ConvolveOp)</li> <li>8246331: Lanai: do not update AA clip info in nonAA mode</li> <li>8246239: Revert JDK-8244193 as it causes performance regression</li> </ul>
EA-3	10 Jul 2020	Fixes on top of EA-2 <ul style="list-style-type: none"> <li>8242950: Files which can't be selected has different color with metal than opengl in JFileChooser</li> <li>8247772: Lanai: Several jtreg tests fails with assertion validateTextureDimensions: 759: failed assertion 'MTLTextureDescriptor has width greater than maximum allowed size of 16384'</li> <li>8248301: Lanai - Change MTLStorageMode of MTLSurfaceData texture (render backbuffer) to private</li> </ul>

EA-4	08 Aug 2020	<p>Fixes on top of EA-3</p> <ul style="list-style-type: none"> <li>• 8233226: Implement XOR Mode rendering option</li> <li>• 8247564: Lanai - SwingSet2 - Motif LF - UI controls border is incorrectly drawn with uiScale=1.0</li> <li>• 8244402: Lanai - Motif L&amp;F - Non selected Radio button is barely rendered on non-retina display</li> <li>• 8248831: Lanai : SwingSet2Demo Input dialog is not proper for MetalLookAndFeel with default non-retina display</li> <li>• 8240221: XOR mode rendering option does not work with Texture paint and Gradient Paint</li> <li>• 8247556: Lanai : J2DDemo - ImageOps demo - Few options are not working...</li> <li>• 8247831: Clamp texture height to maxTextureSize(16384)</li> <li>• 8249174: Fix improper glyph cache initialization logic for text rende...</li> <li>• 8243953: Optimize encoder creation/deletion logic for LCD text rendering</li> </ul>
EA-5	18 Sep 2020	<p>Fixes on top of EA-4</p> <ul style="list-style-type: none"> <li>• 8252845: Regressions in Sanity tests after JDK-8251032</li> <li>• 8252798: Cleanup LCD text rendering code</li> <li>• 8252386: Lanai: Implement RadialGradientPaint in shader</li> <li>• 8252706: Enable usage of rowBytesOffset for LCD non cache rendering</li> <li>• 8251032: Colors with texture background look different with Alpha Com...</li> <li>• 8252385: Lanai: Implement LinearGradient paint in shader</li> <li>• 8243547: Lanai - Netbeans IDE has BLACK background for the Toolbar and Statusbar</li> <li>• 8240164: Test java/awt/Window/TranslucentShapedFrameTest/TranslucentShapedFrameTest.java fails for metal</li> <li>• 8240074: Test java/awt/Window/TranslucentJAppletTest/TranslucentJAppletTest.java fails for metal</li> <li>• 8251027: DrawString with TexturePaint is corrupted</li> <li>• 8242920: Gradient Paint doesn't work with metal</li> <li>• 8252371: LCD text rendered with Metal pipeline is corrupted</li> <li>• 8252217: Crash in metal pipeline which running J2DBench test</li> <li>• 8252057: Crash in metal pipeline when dragging any Swing app to other...</li> <li>• 8251484: Performace drop in FlatBoxAA renderperf test for metal pipeline</li> <li>• 8251242: Tile based rendering results in artifacts in last column while using metal pipeline</li> <li>• 8249659: [Lanai] Crash while running RenderPerfTest with metal pipeli...</li> <li>• 8251167: Drawing polyline twice in XOR mode leaves out some traces on screen (only with uiScale=1.0)</li> </ul>