

# JavaFX

## Release Notes

Release 25

G52597-02

March 2026

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The following notes describe important changes and information about this release. In some cases, the descriptions provide links to additional detailed information about an issue or a change.

These release notes cover the standalone JavaFX 25.0.2 release. JavaFX 25.0.2 is the initial release of Oracle JavaFX 25.

- [JavaFX 25.0.2 \(GA\)](#)
- [OpenJFX 25.0.1](#)
- [OpenJFX 25](#)

## Supported Runtimes

JavaFX 25 is designed to work with JDK 25.

## Supported Platforms

JavaFX 25 is available for Linux x86\_64, Windows x86\_64, macOS AArch64, and macOS x86\_64.

## JavaFX 25.0.2 (GA)

### List of Enhancements

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#	Link	Area	Summary
1	<a href="#">JDK-8271024</a>	javafx/graphics	Implement macOS Metal Rendering Pipeline

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## List of Fixes

#	Link	Area	Summary
1	<a href="#">JDK-8378507</a>	javafx/accessibility	JavaFX CSS Reference skips heading levels: <h2> followed by <h4>
2	<a href="#">JDK-8378366</a>	javafx/accessibility	Accessibility issues in CSS Reference Guide and Introduction to FXML
3	<a href="#">JDK-8372453</a>	javafx/window-toolkit	[macOS] Iconifying owner may not iconify owned window
4	<a href="#">JDK-8371052</a>	javafx/media	Update libFFI to 3.5.2
5	<a href="#">JDK-8370632</a>	javafx/web	Additional libxslt 1.1.43 fixes
6	<a href="#">JDK-8368879</a>	javafx/graphics	Intermittent crash on exit when disposing MTLRTTextureData
7	<a href="#">JDK-8368691</a>	javafx/web	Update libxml2 to 2.14.6
8	<a href="#">JDK-8368631</a>	javafx/graphics	Avoid updating disposed MTLTexture
9	<a href="#">JDK-8368166</a>	javafx/graphics	Media query should accept multiple rules
10	<a href="#">JDK-8368021</a>	javafx/window-toolkit	Window buttons of extended RTL stage are on the wrong side
11	<a href="#">JDK-8367602</a>	javafx/controls	Regression: TabPane with wrapped label calculates wrong initial size
12	<a href="#">JDK-8367578</a>	javafx/web	Additional WebKit 622.1 fixes from WebKitGTK 2.48.7
13	<a href="#">JDK-8367370</a>	javafx/window-toolkit	Accent color platform preference not updating in macOS 26 (Tahoe)
14	<a href="#">JDK-8366744</a>	javafx/web	Update SQLite to 3.50.4
15	<a href="#">JDK-8366217</a>	javafx/media	Update GStreamer to 1.26.5
16	<a href="#">JDK-8361644</a>	javafx/web	Update ICU4C to 77.1
17	<a href="#">JDK-8350479</a>	javafx/window-toolkit	SW pipeline should use default pipeline in Glass
18	<a href="#">JDK-8335748</a>	javafx/graphics	Rippling of frame on scrolling

## OpenJFX 25.0.1

These release notes refer to the OpenJFX 25.0.1. There is no equivalent JavaFX 25.0.1.

## List of Fixes

#	Link	Area	Summary
1	<a href="#">JDK-8361648</a>	javafx/media	Update Glib to 2.84.3
2	<a href="#">JDK-8360270</a>	javafx/web	Websocket communication issues with Vaadin applications through webview
3	<a href="#">JDK-8356982</a>	javafx/web	Update WebKit to 622.1
4	<a href="#">JDK-8328684</a>	javafx/web	HellowWebView demo crashes when a webpage is scrolled

# OpenJFX 25

These release notes refer to the OpenJFX 25. There is no equivalent JavaFX 25.

## Important Changes

- `javafx/build`
  - **JavaFX 25 Requires JDK 23 or Later** ([JDK-8359387](#))

JavaFX 25 is compiled with `--release 23` and thus requires JDK 23 or later in order to run. If you attempt to run with an older JDK, the Java launcher will exit with an error message indicating that the `javafx.base` module cannot be read.
- `javafx/graphics`
  - **JavaFX Applications No Longer Need `--sun-misc-unsafe-memory-access=allow`** ([JDK-8334137](#))

It is no longer necessary to pass `--sun-misc-unsafe-memory-access=allow` to `java` on the command line when running JavaFX applications. The bug that formerly caused this option to be needed has been fixed.
- `javafx/window-toolkit`
  - **JavaFX Requires GTK 3.20 or Later on Linux** ([JDK-8359396](#))

On Linux platforms, JavaFX requires GTK3 version 3.20 or later. An exception will be thrown when initializing the JavaFX runtime if the GTK 3 library cannot be loaded or is older than 3.20.

## Removed Features and Options

- `javafx/graphics`
  - **A Deprecated `TransitionEvent` Constructor Has Been Removed** ([JDK-8353617](#))

The `TransitionEvent(EventType, StyleableProperty, Duration)` constructor was deprecated for removal in JavaFX 24 and has now been removed. Application developers should use `TransitionEvent(EventType, StyleableProperty, String, Duration)` instead.

## List of New Features

#	Link	Area	Summary
1	<a href="#">JDK-8355774</a>	<code>javafx/controls</code>	<code>RichTextArea</code> : provide mechanism for CSS styling of highlights
2	<a href="#">JDK-8357594</a>	<code>javafx/controls</code>	Additional geometry-based <code>Text/TextFlow</code> APIs
3	<a href="#">JDK-8313424</a>	<code>javafx/graphics</code>	JavaFX controls in the title bar (Preview)
4	<a href="#">JDK-8314482</a>	<code>javafx/graphics</code>	<code>TextFlow</code> : <code>TabStopPolicy</code>
5	<a href="#">JDK-8341670</a>	<code>javafx/graphics</code>	[ <code>Text,TextFlow</code> ] Public API for Text Layout Info
6	<a href="#">JDK-8345348</a>	<code>javafx/graphics</code>	CSS media feature queries

## List of Other Enhancements

#	Link	Area	Summary
1	<a href="#">JDK-8313556</a>	javafx/ accessibility	Create implementation of NSAccessibilitySlider protocol
2	<a href="#">JDK-8313558</a>	javafx/ accessibility	Create implementation of NSAccessibilityStepper protocol
3	<a href="#">JDK-8350316</a>	javafx/ accessibility	Create implementation of NSAccessibilityProgressIndicator protocol
4	<a href="#">JDK-8351773</a>	javafx/ accessibility	Create implementation of NSAccessibilityGroup protocol
5	<a href="#">JDK-8356983</a>	javafx/ accessibility	Create implementation of NSAccessibilityImage protocol
6	<a href="#">JDK-8359257</a>	javafx/ accessibility	Create accessibility protocol for TabGroup component
7	<a href="#">JDK-8361379</a>	javafx/ accessibility	[macos] Refactor accessibility code to retrieve attribute by name
8	<a href="#">JDK-8335547</a>	javafx/controls	Support multi-line prompt text for TextArea
9	<a href="#">JDK-8358255</a>	javafx/graphics	Factor out boilerplate code of EventHandler properties in Scene and Window
10	<a href="#">JDK-8337960</a>	javafx/media	Improve performance of mfwrapper by reusing GStreamer media buffers for decoded video
11	<a href="#">JDK-8349373</a>	javafx/other	Support JavaFX preview features

## List of Fixes

#	Link	Area	Summary
1	<a href="#">JDK-8357157</a>	javafx/animation	Exception thrown from AnimationTimer freezes application
2	<a href="#">JDK-8170720</a>	javafx/base	VetoableListDecorator: Indexes to remove are not aggregated
3	<a href="#">JDK-8233179</a>	javafx/base	VetoableListDecorator#sort throws IllegalArgumentException "duplicate children"
4	<a href="#">JDK-8347753</a>	javafx/base	VetoableListDecorator doesn't accept its own sublists for bulk operations
5	<a href="#">JDK-8351038</a>	javafx/base	ConcurrentModificationException in EventType constructor
6	<a href="#">JDK-8351276</a>	javafx/base	Prevent redundant computeValue calls when a chain of mappings becomes observed
7	<a href="#">JDK-8358770</a>	javafx/build	incubator.richtext pom missing dependency on incubator.input
8	<a href="#">JDK-8361713</a>	javafx/build	JavaFX API docs overview is missing an intro section
9	<a href="#">JDK-8089080</a>	javafx/controls	[TextArea] Caret disappear after pressing backspace to clear the content
10	<a href="#">JDK-8185887</a>	javafx/controls	TableRowSkinBase fails to correctly virtualize cells in horizontal direction

#	Link	Area	Summary
11	<a href="#">JDK-8207333</a>	javafx/controls	[Linux, macOS] Column sorting is triggered always after context menu request on table header
12	<a href="#">JDK-8252566</a>	javafx/controls	TreeTableView: broken row layout for fixedCellSize
13	<a href="#">JDK-8276326</a>	javafx/controls	Empty Cells in TableView supposedly after using setFixedCellSize()
14	<a href="#">JDK-8277000</a>	javafx/controls	Tree-/TableRowSkin: replace listener to fixedCellSize by live lookup
15	<a href="#">JDK-8299753</a>	javafx/controls	Tree/TableView: Column Resizing With Fractional Scale
16	<a href="#">JDK-8299755</a>	javafx/controls	Tree/TableView: Cursor Decouples From Divider When Resizing With Fractional Scale
17	<a href="#">JDK-8333275</a>	javafx/controls	ComboBox: adding an item from editor changes editor text
18	<a href="#">JDK-8335587</a>	javafx/controls	TextInputControl: Binding prompt text that contains linebreak causes exception
19	<a href="#">JDK-8340344</a>	javafx/controls	The first item in TreeView is not aligned in the beginning
20	<a href="#">JDK-8341281</a>	javafx/controls	Root TreeItem with null value breaks TreeTableView
21	<a href="#">JDK-8346824</a>	javafx/controls	Collapsing tree view causes rendering issues
22	<a href="#">JDK-8347392</a>	javafx/controls	Thread-unsafe implementation of c.s.j.scene.control.skin.Utils
23	<a href="#">JDK-8348100</a>	javafx/controls	Tooltips cannot be instantiated on background thread
24	<a href="#">JDK-8349091</a>	javafx/controls	Charts: exception initializing in a background thread
25	<a href="#">JDK-8349098</a>	javafx/controls	TabPane: exception initializing in a background thread
26	<a href="#">JDK-8349105</a>	javafx/controls	Pagination: exception initializing in a background thread
27	<a href="#">JDK-8349255</a>	javafx/controls	TitledPane: exception initializing in a background thread
28	<a href="#">JDK-8349756</a>	javafx/controls	Memory leak in PaginationSkin when setting page count / index
29	<a href="#">JDK-8349758</a>	javafx/controls	Memory leak in TreeTableView
30	<a href="#">JDK-8350976</a>	javafx/controls	MenuBarSkin: exception initializing in a background thread
31	<a href="#">JDK-8351047</a>	javafx/controls	TitledPane should handle titles that are resizable
32	<a href="#">JDK-8351368</a>	javafx/controls	RichTextArea: exception pasting from Word
33	<a href="#">JDK-8351878</a>	javafx/controls	RichTextArea: copy/paste issues
34	<a href="#">JDK-8355012</a>	javafx/controls	JavaFX modena.css -fx-highlight-text-fill bug
35	<a href="#">JDK-8355415</a>	javafx/controls	RichTextArea: NPE in VFlow::scrollCaretToVisible

#	Link	Area	Summary
36	<a href="#">JDK-8355615</a>	javafx/controls	ConcurrentModificationException creating MenuBar on background thread
37	<a href="#">JDK-8357393</a>	javafx/controls	RichTextArea: fails to properly save text attributes
38	<a href="#">JDK-8364049</a>	javafx/controls	ToolBar shows overflow menu with fractional scale
39	<a href="#">JDK-8364088</a>	javafx/controls	ToolBarSkin: NPE in select()
40	<a href="#">JDK-8281384</a>	javafx/graphics	Random chars on paste from Windows clipboard
41	<a href="#">JDK-8318985</a>	javafx/graphics	[macos] Incorrect 3D lighting on macOS 14 and later
42	<a href="#">JDK-8342530</a>	javafx/graphics	Specifying "@Nx" scaling level in ImageStorage should only load that specific level
43	<a href="#">JDK-8349256</a>	javafx/graphics	Update PipeWire to 1.3.81
44	<a href="#">JDK-8350149</a>	javafx/graphics	VBox ignores bias of child controls when fillWidth is set to false
45	<a href="#">JDK-8351067</a>	javafx/graphics	Enforce Platform threading use
46	<a href="#">JDK-8351867</a>	javafx/graphics	No UI changes while iconified
47	<a href="#">JDK-8353632</a>	javafx/graphics	[Linux] Undefined reference to PlatformSupport::OBSERVED_SETTINGS with C++14
48	<a href="#">JDK-8353845</a>	javafx/graphics	com.sun.javafx.css.BitSet.equals(null) throws NPE
49	<a href="#">JDK-8354797</a>	javafx/graphics	Parent.needsLayoutProperty() should return read-only getter
50	<a href="#">JDK-8354813</a>	javafx/graphics	Parent.isNeedsLayout() may return wrong value in property listener
51	<a href="#">JDK-8357004</a>	javafx/graphics	Windows platform color changes are not picked up in some cases
52	<a href="#">JDK-8358454</a>	javafx/graphics	Wrong   tags in cssref.html
53	<a href="#">JDK-8329227</a>	javafx/media	Seek might hang with fMP4 H.265/HEVC or H.265/HEVC over HTTP/FILE
54	<a href="#">JDK-8357714</a>	javafx/media	AudioClip.play crash on macOS when loading resource from jar
55	<a href="#">JDK-8088343</a>	javafx/other	Race condition in javafx.concurrent.Task::cancel
56	<a href="#">JDK-8350048</a>	javafx/other	Enforce threading restrictions for show and hide methods in Window, Control, and Skin
57	<a href="#">JDK-8245602</a>	javafx/samples	Ensemble8: HTMLEditor Toolbar gets scrolled out of view
58	<a href="#">JDK-8146479</a>	javafx/scenegraph	Scene is black after stage is restored (content changed while minimized)
59	<a href="#">JDK-8340322</a>	javafx/web	Update WebKit to 620.1
60	<a href="#">JDK-8352162</a>	javafx/web	Update libxml2 to 2.13.8
61	<a href="#">JDK-8352164</a>	javafx/web	Update libxslt to 1.1.43
62	<a href="#">JDK-8354876</a>	javafx/web	Update SQLite to 3.49.1

#	Link	Area	Summary
63	<a href="#">JDK-8354940</a>	javafx/web	Fail to sign in to Microsoft sites with WebView
64	<a href="#">JDK-8176813</a>	javafx/window-toolkit	Mac: Failure to exit full-screen programmatically in some cases
65	<a href="#">JDK-8348095</a>	javafx/window-toolkit	[Linux] Menu shows up in wrong position when using i3 windows manager in full screen mode
66	<a href="#">JDK-8351733</a>	javafx/window-toolkit	Crash when creating too many nested event loops
67	<a href="#">JDK-8353314</a>	javafx/window-toolkit	macOS: Inconsistent fullscreen behavior
68	<a href="#">JDK-8353548</a>	javafx/window-toolkit	[macOS] DragEvent.getScreenY() returns incorrect value in secondary monitor
69	<a href="#">JDK-8354478</a>	javafx/window-toolkit	Improve StageStyle documentation
70	<a href="#">JDK-8354631</a>	javafx/window-toolkit	[macos] OpenURIHandler events not received by AWT when JavaFX is primary toolkit
71	<a href="#">JDK-8356652</a>	javafx/window-toolkit	Input field ignores custom input source characters
72	<a href="#">JDK-8357584</a>	javafx/window-toolkit	[XWayland] [OL10] Robot.mousePress() is delivered to wrong place
73	<a href="#">JDK-8363813</a>	javafx/window-toolkit	Missing null check in GlassScreen

## JavaFX Release Notes, Release 25

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