

# Customizing windows and panels;↵Customizing windows and panels

- [arrow.eps ↵](#) Set the window title.
- [arrow.eps ↵](#) Determine how the Window Server buffers window contents.
- [arrow.eps ↵](#) Choose the window's controls.
- [arrow.eps ↵](#) Set the window's options.

A single Attributes display serves for both windows and panels.

[\\_AttributesDisplay1.eps ↵](#)

## Window Backing

The backing determines how to redraw part of a window when that part is re-exposed after being covered by another window.

[SquareBullet.eps ↵](#)**Nonretained:** The application is responsible for all drawing on the screen because there is no buffer. If the application does nothing, the re-exposed part is replaced by the background color. Nonretained windows are appropriate for transitory images that you don't need to save.

[SquareBullet.eps ↵](#)**Retained:** The Window Server copies the covered part's pixels to a buffer. When the obscured part of the window is later revealed, the Window Server redraws only that part, not the rest of the window. A retained window is the appropriate choice for most situations.

[SquareBullet.eps ↵](#)**Buffered:** The Window Server first draws in the buffer and then copies the buffer to the screen. When an obscured part is revealed, the Window Server refreshes the entire window using the

buffer. A buffered window is appropriate when you don't want users watching complicated images being rendered on-screen. It is also the best choice for animation or for redrawing lines of rapidly typed text.

## Window Controls

\_AttributesDisplay2.eps ↗

## Window Options

Option	Description
<b>TableHeadRule.eps ↗</b>	
Release when closed	The window object is sent a <b>release</b> message when it is closed.
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Hide on deactivate	The window should disappear when the application is deactivated.
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Visible at launch time	The window should appear when the nib file is loaded.
TableRule.eps ↗	
Deferred	A window device for this object is deferred until it's placed on-screen.
TableRule.eps ↗	
One shot	The window device is released when it is removed from the screen.
TableRule.eps ↗	
Dynamic depth limit	The window's depth limit can change to match the depth of the screen.
TableRule.eps ↗	
Wants to be color	The window is displayed on a color screen (2-monitor systems only).
TableRule.eps ↗	

**Related Concept:** [SettingAttributesConcepts.rtf](#);linkMarkername  
What'stheDifferenceBetweenaWindowandaPanel?;, What's the Difference Between a Window and a Panel?