

Adapting to the New UI of OS X Yosemite

Session 209 Mike Stern User Experience Evangelist

Rachel Goldeen

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#WWDC14

Cocoa Software Engineer

Patrick Heynen Cocoa Engineering Manager

Yosemite brings a fresh look to the Mac

Yosemite brings a fresh look to the Mac Understand what has changed and why

Yosemite brings a fresh look to the Mac Understand what has changed and why Getting the most out of the New UI in Cocoa

Developer's Tour of Yosemite

Fonts, Colors, and Artwork

App Compatibility

Developer's Tour of Yosemite

Fonts, Colors, and Artwork

App Compatibility

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Fonts, Colors, and Artwork

App Compatibility

Developer's Tour of Yosemite

Fonts, Colors, and Artwork

App Compatibility

Design Themes

Mike Stern User Experience Evangelist

Not an engineer

2014 Yosemite

2014 Yosemite2001 Cheetah

2014 Yosemite

2001 Cheetah

Yosemite 2014 Mavericks Mountain Lion Lion Snow Leopard Leopard Tiger Panther Jaguar Puma Cheetah 2001





















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Q Search



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Pictures For Grandma



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Simplicity





























Mavericks



Yosemite







Helvetica Neue

Lucida Grande





Helvetica Neue





Helvetica Neue





Helvetica Neue
















Consistency























































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► Track: Lead Vocal	1 Drummer M S	Drummer ►+▶-▶++++++++++++++++++++++++++++++++++
	2 Synth Pad Layers	Synth Pad Layers
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0 Input 1 00	6 Drum Machine	Drum Machine
Channel EQ Gain Compressor Compressor	7 Guitar M S R I	Guitar (20)
Space D Channel EQ	8 Funk Bass M S R I	Funk Bass (0)
Bus 1 (9) Stereo Out	9 Lead Vocal M S R 1 O	Lead Vocal () - MMB - Fable - +) ad 425 - 40 5 4 - 4000 - 10 - 40
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Lead Vocal Stereo Out	0	

(10) 🤶 ♦) Wed 9:41 AM Q 📰 MySong - Tracks 10.21 4/4 C 🛛 🙉 🖻 🖉 🗏 🛃 🤉 😘 125 92 C maj $\mathbf{k} = \mathbf{v}$ Snap: Smart 5 8 10 11 6 7 4 9 Drummer Drummer Drum Machine _____ ____ A the last last Funk bass @





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lipput 1	 	6		Drum Machine M S R	Drum Machine
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Movies			Yesterday	Folder
Music			4/10/15	Folder
Pictures			11/17/13	Folder
Public			4/12/14	Folder
Sites			2/8/13	Folder


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2/	8/13	

Folder



Sites -	

9 selected, 670.57 GB available



4/	12/14	
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Content-Focused









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Mavericks

Yosemite









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Mavericks

Yosemite





Yosemite



Developer's Tour of Yosemite

Rachel Goldeen Cocoa Software Engineer









Q Search

MTBwJordan2.jpg























Q Search

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MTBwJordan2.jpg

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Q Search

Double-click a window's title bar to minimize

- Minimize windows into application icon
- Automatically hide and show the Dock
- Show indicators for open applications

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Size

Magnification

Position on screen

Minimize windows using:

Dock	Q Search	
Small Large		
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Left Bottom Right Genie effect		
 Double-click a window's title bar Minimize windows into application Animate opening applications Automatically hide and show the Show indicators for open application 	to minimize on icon Dock ations	

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Magnificatio

Position on scree

Minimize windows using:

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Bottom

Dock

Genie effect 💲

Left

Double-click a window's title bar to minimize

Right

- Minimize windows into application icon
- Animate opening applications
- Automatically hide and show the Dock
- Show indicators for open applications

?

Q Search

Size:

Magnification:

Position on screen:

Minimize windows using:

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Q Search

- Double-click a window's title bar to minimize
- Minimize windows into application icon
- Animate opening applications
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- Show indicators for open applications

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Dock Q Search Size: Small Large Magnification: Min Max Position on screen: Left Bottom Right Minimize windows using: Genie effect Double-click a window's title bar to minimize Minimize windows into application icon

- Animate opening applications
- Automatically hide and show the Dock
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Q Search

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- Minimize windows into application icon
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	S&P 500		1,911.91	+
	AAPL		625.63	+
	GOOG		565.95	+
	Show More			

7:43 PM *◀* Cupertino

Tomorrow

WWDC14

Apple Worldwide Developers Conference. June 2–6, San Francisco.

Over the past six years, a It's changed how we intera Entertain ourselves. Do All because of devel

- Over the past six years, a massive cultural shift has occurred.
- It's changed how we interact with one another. Learn new things.
 - Entertain ourselves. Do our work. And live our daily lives.
 - All because of developers and the apps they create.

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Add Invitees		15	16
Add Notes, Attachments	, or URL		
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27	28	29	30
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Translucent Toolbars





Translucent Toolbars







Use window style mask NSFullSizeContentViewWindowMask







Use window style mask NSFullSizeContentViewWindowMask window.styleMask |= NSFullSizeContentViewWindowMask;







Use window style mask NSFullSizeContentViewWindowMask window.styleMask |= NSFullSizeContentViewWindowMask;

Example: translucent toolbars and titlebars that show and hide







Related Session

 Adopting Advanced Features of the New UI of OS X Yosemite

Marina

Wednesday 2:00PM









Non-directional sliders only







Non-directional sliders only
slider.numberOfTickMarks = 0;







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h.Alinis













Fullscreen Button





Fullscreen Button

Press Option to zoom





n. An is life





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Separated Segmented Control







Separated Segmented Control

Navigation, incremental steps







Separated Segmented Control

Navigation, incremental steps segmentedControl.segmentStyle = NSSegmentStyleSeparated;













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MTBwJordan2.jpg

1 item, 21.09 GB available

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For free, if...



For free, if... NSOutlineView or NSTableView



For free, if... NSOutlineView or NSTableView Highlight style set to Source List



For free, if... NSOutlineView or NSTableView Highlight style set to Source List

Source List Highlight




Example: SidebarDemo From http://developer.apple.com















Hidden Window Title



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Hidden Window Title

New NSWindow property: titleVisibility



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Hidden Window Titles

New NSWindow property: titleVisibility window.titleVisibility = NSWindowTitleHidden;





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Animated Controls

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Animated Controls Search field



Animated Controls Search field



Animated Controls Radio buttons

Position on screen:



Animated Controls Radio buttons

Position on screen:



Animated Controls Checkboxes

Animate opening applications Show indicators for open applications

- Double-click a window's title bar to minimize
- Minimize windows into application icon
- Automatically hide and show the Dock

Animated Controls Checkboxes

Animate opening applications Show indicators for open applications

- Double-click a window's title bar to minimize
- Minimize windows into application icon
- Automatically hide and show the Dock

Animated Controls Popup buttons

Minimize windows using:



Animated Controls Popup buttons

Minimize windows using:







	Today		Notifica	atic
	Tuesda June 3	ay, 3 rd		
Cal	endar			
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	DOW J	1	6,675.50	+
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	AAPL		625.63	+
	GOOG		565.95	+
	Show More			

7:43 PM *◀* Cupertino

Tomorrow



























Vibrant Dark appearance







Vibrant Dark appearance NSVisualEffectView *effectView = [NS



NSVisualEffectView *effectView = [NSVisualEffectView initWithFrame:frame];





Vibrant Dark appearance
NSVisualEffectView *effectView = [NS
NSAppearance *darkAppearance =
[NSAppearance appearanceNamed



NSVisualEffectView *effectView = [NSVisualEffectView initWithFrame:frame];

[NSAppearance appearanceNamed:NSAppearanceNameVibrantDark];





Vibrant Dark appearance NSAppearance *darkAppearance = effectView.appearance = darkAppearance;



NSVisualEffectView *effectView = [NSVisualEffectView initWithFrame:frame];

[NSAppearance appearanceNamed:NSAppearanceNameVibrantDark];







WWDC14

Apple Worldwide Developers Conference. June 2–6, San Francisco.

Over the past six years, a It's changed how we intera Entertain ourselves. Do All because of devel



- Over the past six years, a massive cultural shift has occurred.
- It's changed how we interact with one another. Learn new things.
 - Entertain ourselves. Do our work. And live our daily lives.
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MMDC14

Apple Worldwide Developers Conference. June 2–6, San Francisco.

- Over the past six years, a massive cultural shift has occurred.
- It's changed how we interact with one another. Learn new things.
 - Entertain ourselves. Do our work. And live our daily lives.
 - All because of developers and the apps they create.









Open Image in New Tab Open Image in New Window

Save Image to "Downloads" Save Image As...

Use Image as Desktop Picture

Copy Image Address Copy Image



Vibrant Light appearance



Open Image in New Tab Open Image in New Window

Save Image to "Downloads" Save Image As...

Use Image as Desktop Picture

Copy Image Address Copy Image



Vibrant Light appearance NSVisualEffectView *effectView = [NS



NSVisualEffectView *effectView = [NSVisualEffectView initWithFrame:frame];





Vibrant Light appearance
NSVisualEffectView *effectView = [NS
NSAppearance *lightAppearance =
[NSAppearance appearanceNamed



NSVisualEffectView *effectView = [NSVisualEffectView initWithFrame:frame];

[NSAppearance appearanceNamed:NSAppearanceNameVibrantLight];





Vibrant Light appearance NSAppearance *lightAppearance = effectView.appearance = lightAppearance;



<u>NSVisualEffectView *effectView = [NSVisualEffectView initWithFrame:frame];</u>

[NSAppearance appearanceNamed:NSAppearanceNameVibrantLight];





Related Session

 Adopting Advanced Features of the New UI of OS X Yosemite

Marina

Wednesday 2:00PM

Vibrancy

Patrick Heynen Cocoa Engineering Manager

Vibrancy A visual building block for OSX

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4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	6	7	8	9	1	1	1
Vibrancy A visual building block for OSX



Vibrancy What is it?

Advanced Blending on Dynamic Backgrounds

2 + 2 = 4

2 + 2 = 5

The whole is greater than the sum of the parts























The whole is greater than the sum of the parts

Menus/popovers

Menus/popovers Light (sidebar)

Menus/popovers Light (sidebar) Titlebars

Menus/popovers Light (sidebar) Titlebars Dark

Source lists

Source lists Translucent titlebar

Source lists Translucent titlebar Menus and popovers

Source lists Translucent titlebar Menus and popovers Menu bar and status items

Using Vibrancy in Your Apps NSVisualEffectView + NSAppearance

Background view containing blurred version of window or desktop contents

Background view containing blurred version of window or desktop contents Offered in light and dark material flavors

Background view containing blurred version of window or desktop contents Offered in light and dark material flavors Automatically updates as content underneath changes

NSAppearance

NSAppearance

NSAppearanceNameVibrantLight and NSAppearanceNameVibrantDark

NSAppearance

NSAppearanceNameVibrantLight and NSAppearanceNameVibrantDark Provide colors, controls, and template image treatments suitable for vibrant rendering
NSAppearance

NSAppearanceNameVibrantLight and NSAppearanceNameVibrantDark Foreground content source for NSVisualEffectView materials

Provide colors, controls, and template image treatments suitable for vibrant rendering

NSAppearance

NSAppearanceNameVibrantLight and NSAppearanceNameVibrantDark Foreground content source for NSVisualEffectView materials AppKit controls automatically pick up vibrant rendering where appropriate

- Provide colors, controls, and template image treatments suitable for vibrant rendering

Demo Using vibrancy in your apps

Vibrancy

More in-depth details on using NSVisualEffectView

 Adopting Advanced Features of the New UI in OS X Yosemite

Marina

Wednesday 2:00PM

Fonts, Colors, and Artwork

What's New in Fonts?

System Font



w Go Window Help





Go Window Help







Window Go Help





Helvetica Neue, optimized for OSX

Helvetica Neue, optimized for OSX Font metrics tuned to balance layout compatibility with aesthetics

Font Metrics Lucida Grande





Font Metrics Lucida Grande







3.8 1.5 3.6 4.2 4.1 3.2

Font Metrics Helvetica Neue



4.2 1.1 2.7 3.3 2.8 2.1









Compression applied if in danger of clip



Compression applied if in danger of clip Active for apps built against 10.9 or earlier only



Compression applied if in danger of clip Active for apps built against 10.9 or earlier only No silver bullet!



Layout compression can affect legibility

Layout compression can affect legibility

Use System Font Selectors

Use System Font Selectors

- +[NSFont systemFontOfSize:]
- +[NSFont boldSystemFontOfSize:]
- +[NSFont labelFontOfSize:]

Do not explicitly set your font to "Helvetica Neue"

Colors

Use colors as a 'system' not a set of numbers!

Use colors as a 'system' not a set of numbers! Many standard system colors have been adapted to the new UI

Use colors as a 'system' not a set of numbers! Many standard system colors have been adapted to the new UI Information hierarchy

+[NSColor labelColor]
+[NSColor secondaryLabelColor]

System Colors Control text adapts to control state

System Colors Control text adapts to control state

Sample Sample Sample

Sample



Sample

Sample

Sample

Sample

System Colors Control text adapts to control state



Inactive

Sample

Sample

Sample

Sample

Sample

System Colors Adapt to vibrant NSAppearances

Primary Label Color

Secondary Label Color

Primary Label Color

Secondary Label Color
Artwork

Image provides shape

Image provides shape



Image provides shape Transformed by AppKit with context specific appearance



Image provides shape

- Transformed by AppKit with context specific appearance
- Template styling will automatically follow control state



New OS X UI brings big changes to your app's look and feel

New OS X UI brings big changes to your app's look and feel



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	Qaesthetic	\otimes
Wikipedia		

aesthetic | es'THetik | (also esthetic)

concerned with beauty or the appreciation of beauty: the pictures give great aesthetic pleasure.
giving or designed to give pleasure through beauty; of pleasing appearance.

noun [in sing.]

New OS X UI brings big changes to your app's look and feel



Make it awesome on Yosemite

Make it awesome on Yosemite What about deploying on Mavericks?







App Compatibility Suggested techniques

Stick with the System!

App Compatibility Suggested techniques

Use Runtime checks to tailor your code and resources for each design

App Compatibility Symbol check

App Compatibility Symbol check

// Check to see if we can go vibrant if (&NSAppearanceNameVibrantDark!=0) { NSAppearance *vibrantDarkAppearance = [NSAppearance] appearanceNamed:NSAppearanceNameVibrantDark];

initWithFrame:self.inspector.frame]; }

NSVisualEffectView *fxView = [[NSVisualEffectView alloc]

App Compatibility Symbol check

// Check to see if we can go vibrant if (&NSAppearanceNameVibrantDark!=0) { NSAppearance *vibrantDarkAppearance = [NSAppearance appearanceNamed:NSAppearanceNameVibrantDark];

NSVisualEffectView *fxView = [[NSVisualEffectView alloc]

initWithFrame:self.inspector.frame];

}

App Compatibility Version check

App Compatibility Version check

if (rint(NSAppKitVersionNumber) > NSAppKitVersionNumber10_9) { } else { }

- self.infoView.image = [NSImage imageNamed:@"InfoImageNew"];
- self.infoView.image = [NSImage imageNamed:@"InfoImageOld"];

App Compatibility Version check

if (rint(NSAppKitVersionNumber) > NSAppKitVersionNumber10_9) {
 self.infoView.image = [NSImage imageNamed:@"InfoImageNew"];
} else {
 self.infoView.image = [NSImage imageNamed:@"InfoImageOld"];
}

Look for opportunities to freshen your design everywhere When in doubt, favor the new visual style!

New User Interface design for OS X

New User Interface design for OS X Understanding vibrancy

New User Interface design for OS X Understanding vibrancy Adapting your applications

New User Interface design for OS X Understanding vibrancy Adapting your applications See advanced session for more in-depth exploration

Summary

Exciting changes to design of OS X Cocoa frameworks can guide you through

More Information

Jake Behrens Developer Evangelist behrens@apple.com

Documentation http://developer.apple.com

Apple Developer Forums http://devforums.apple.com

Related Sessions

- What's New in Cocoa
- Adopting Advanced Features of the N X Yosemite
- Creating Extensions for iOS and OS X,
- What's New in Interface Builder
- Designing Intuitive User Experiences

	Presidio	Tuesday 11:30AM
lew UI of OS	Marina	Wednesday 2:00PM
Part 1	Mission	Tuesday 2:00PM
	Mission	Wednesday 3:15PM
	Presidio	Tuesday 4:30PM



User Interface Design Lab

New UI and Cocoa Lab

- Cocoa Lab
- Interface Builder and Live Views Lab

Xcode and Interface Builder Lab

User Interface Design Lab	Everyday 9:00AM
Frameworks Lab B	Wednesday 3:15PM
Frameworks Lab B	Thursday 4:30PM
Tools Lab C	Wednesday 9:00AM
Tools Lab C	Thursday 9:00PM

