

Welcome

To Advance through Presentation  
Use Page Up and Page Down Keys



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# Mac OS X Update

Ken Bereskin

Director,  
Product Marketing

# Mac OS X Goals

- Mac OS for the next decade
- Modern OS, Modern Apps
- Embrace Industry Standards
- Innovate in key areas



# Mac OS 8



# Mac OS X Server



# Combining Strengths



# Combining Strengths





# Mac OS X Engineering Update

Bertrand Serlet  
VP, Mac OS X



# Design Goals

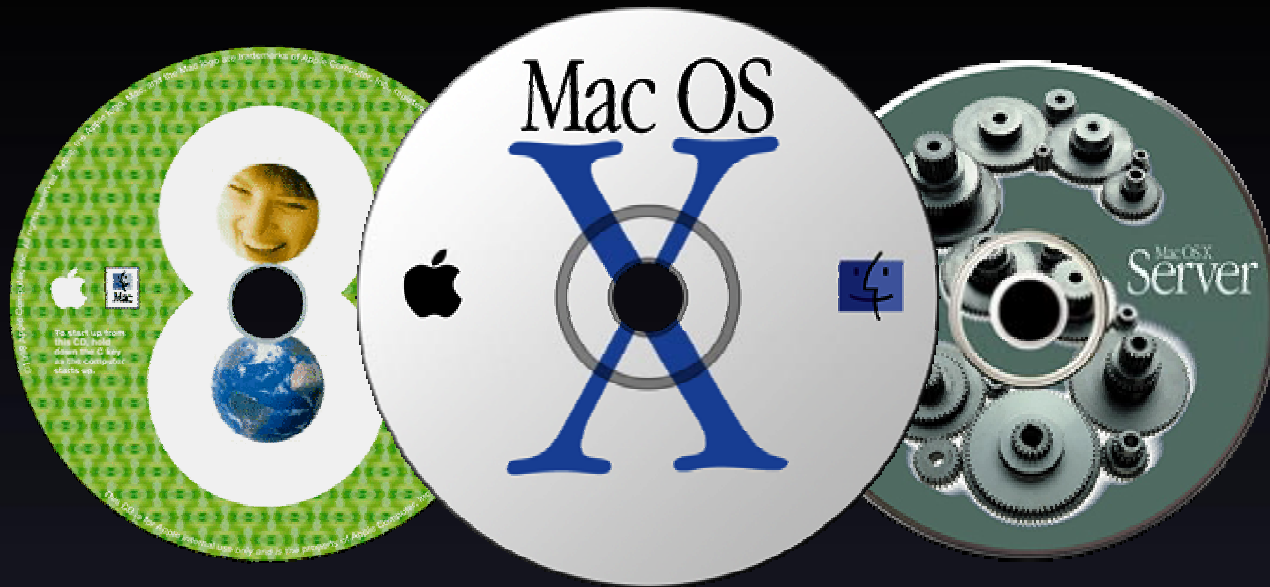
- Protected and preempted Carbon apps
- A foundation for the next decade
- Layered system
- Same basis for Desktop and Server
- Leverage open industry standards
- Technology leadership



# Combining Strengths



# Combining Strengths



# Combining Strengths



**User Experience**

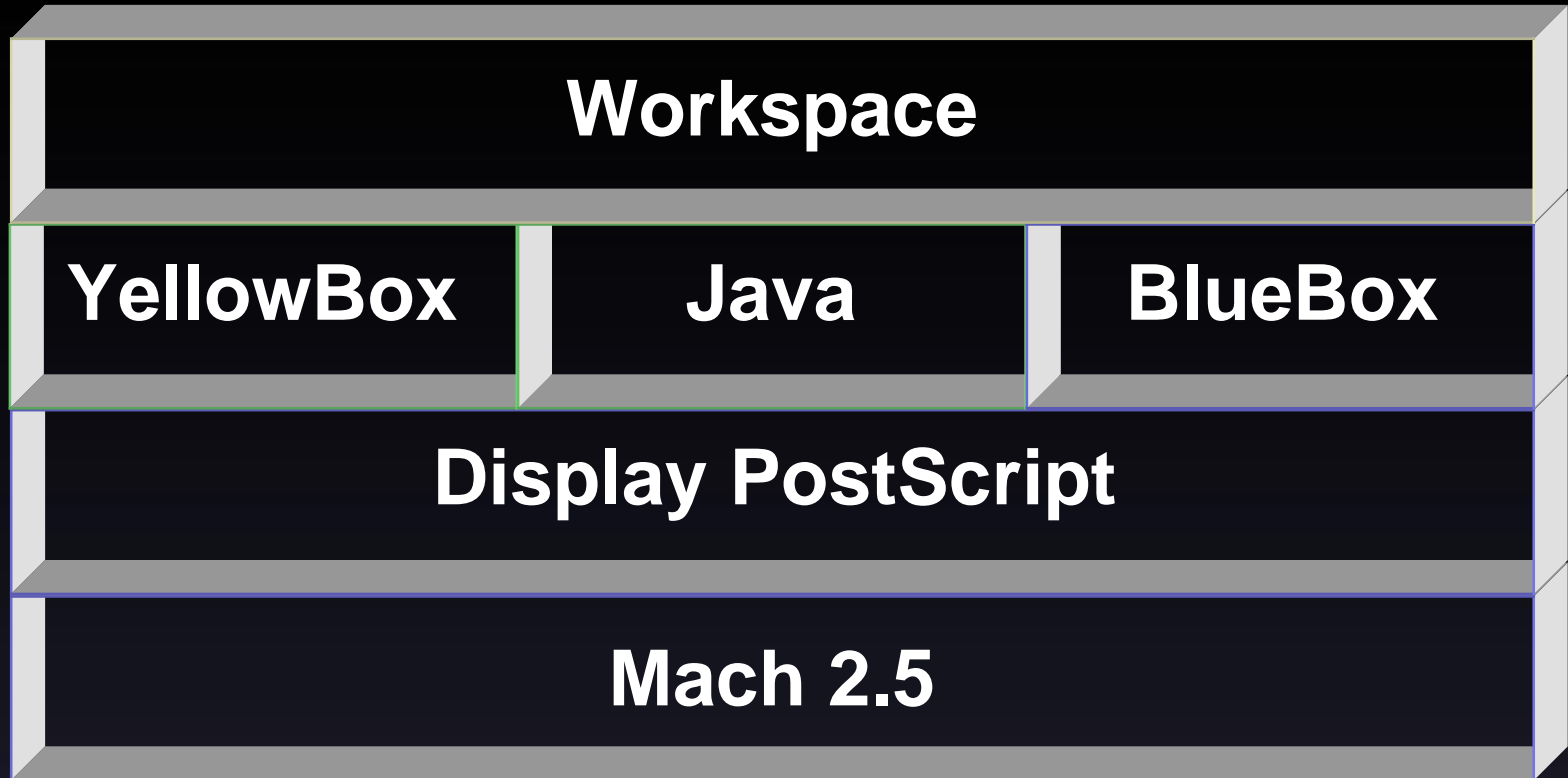
**Application Frameworks**

**Graphics**

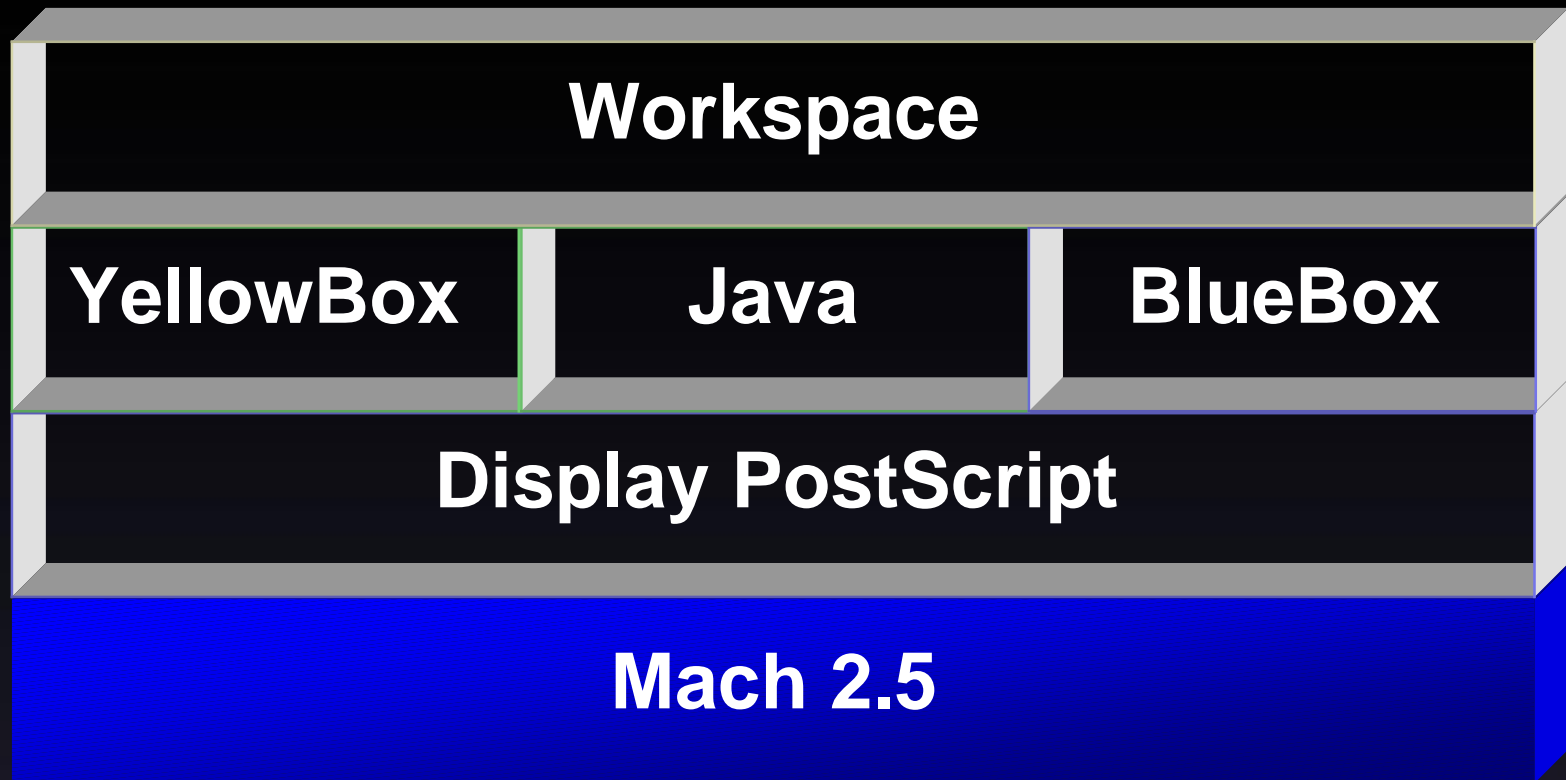
**Kernel**



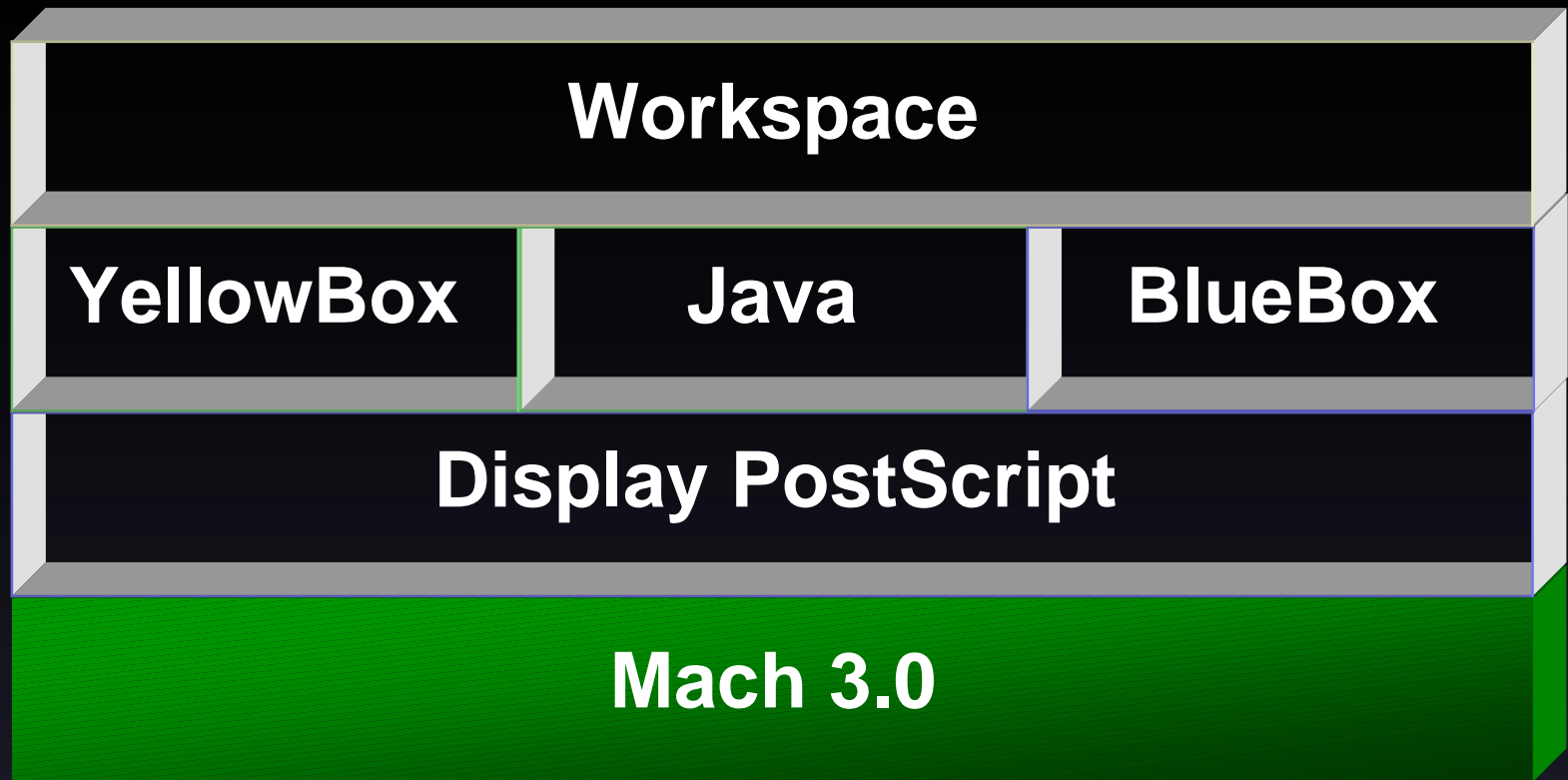
# Mac OS X Server



# Focus: Kernel



# Foundations for the Next Decade

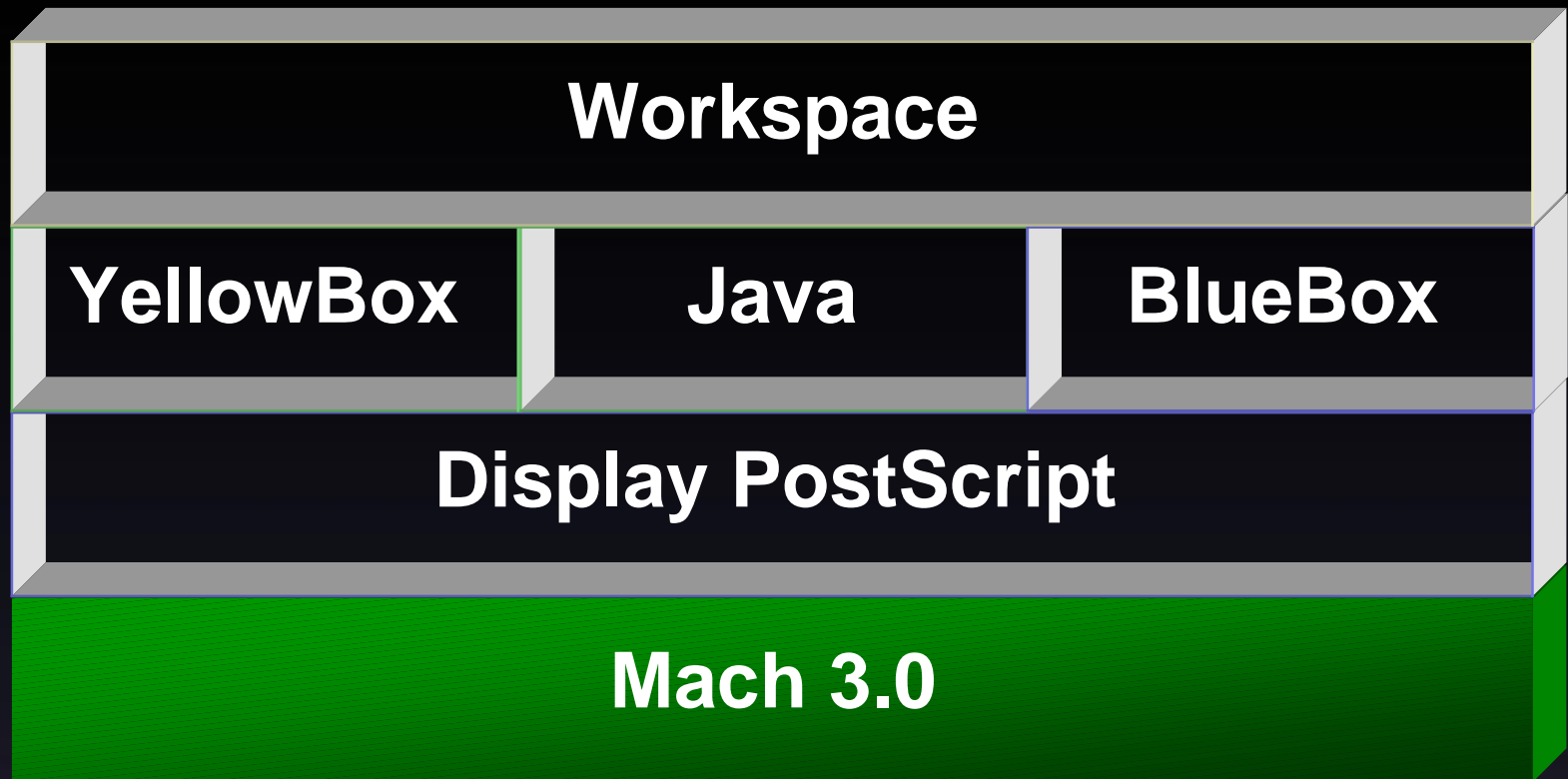




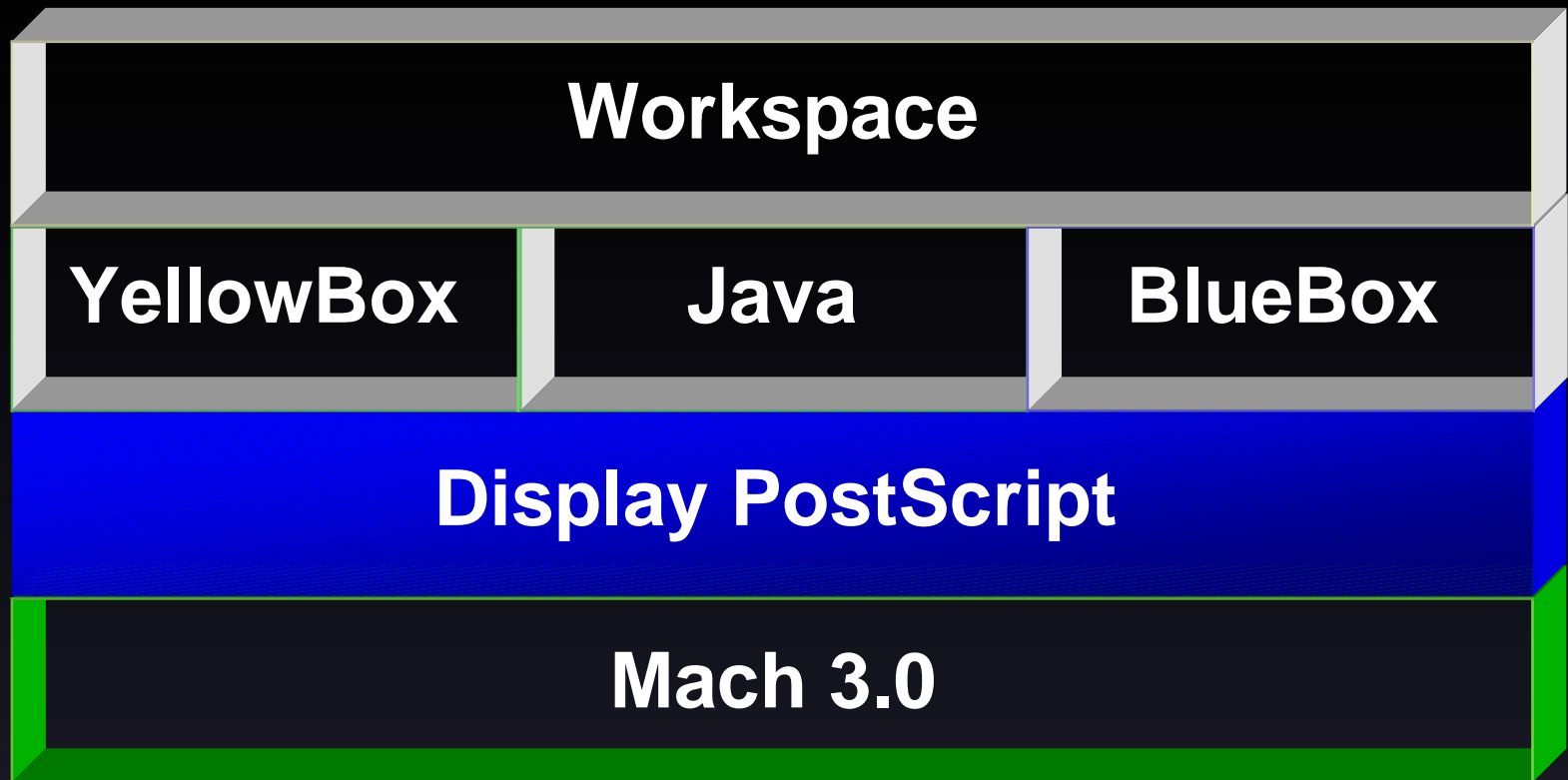
# Mach 3.0

- Evolution of Mach 2.5
- Preemptible
- SMP
- IOKit for drivers
- Foundation for BSD 4.4
- OpenSource!

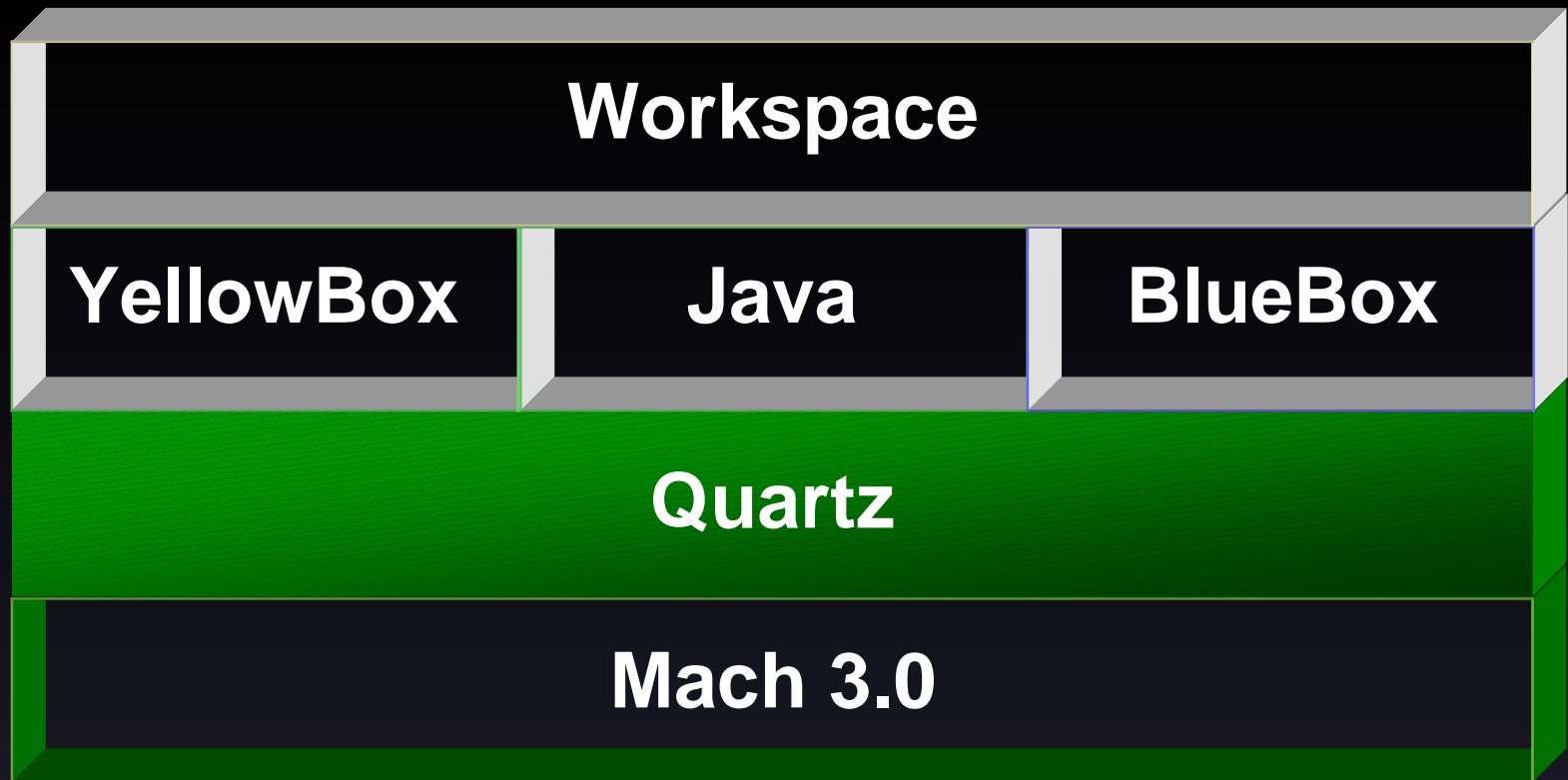




# Focus: Graphics



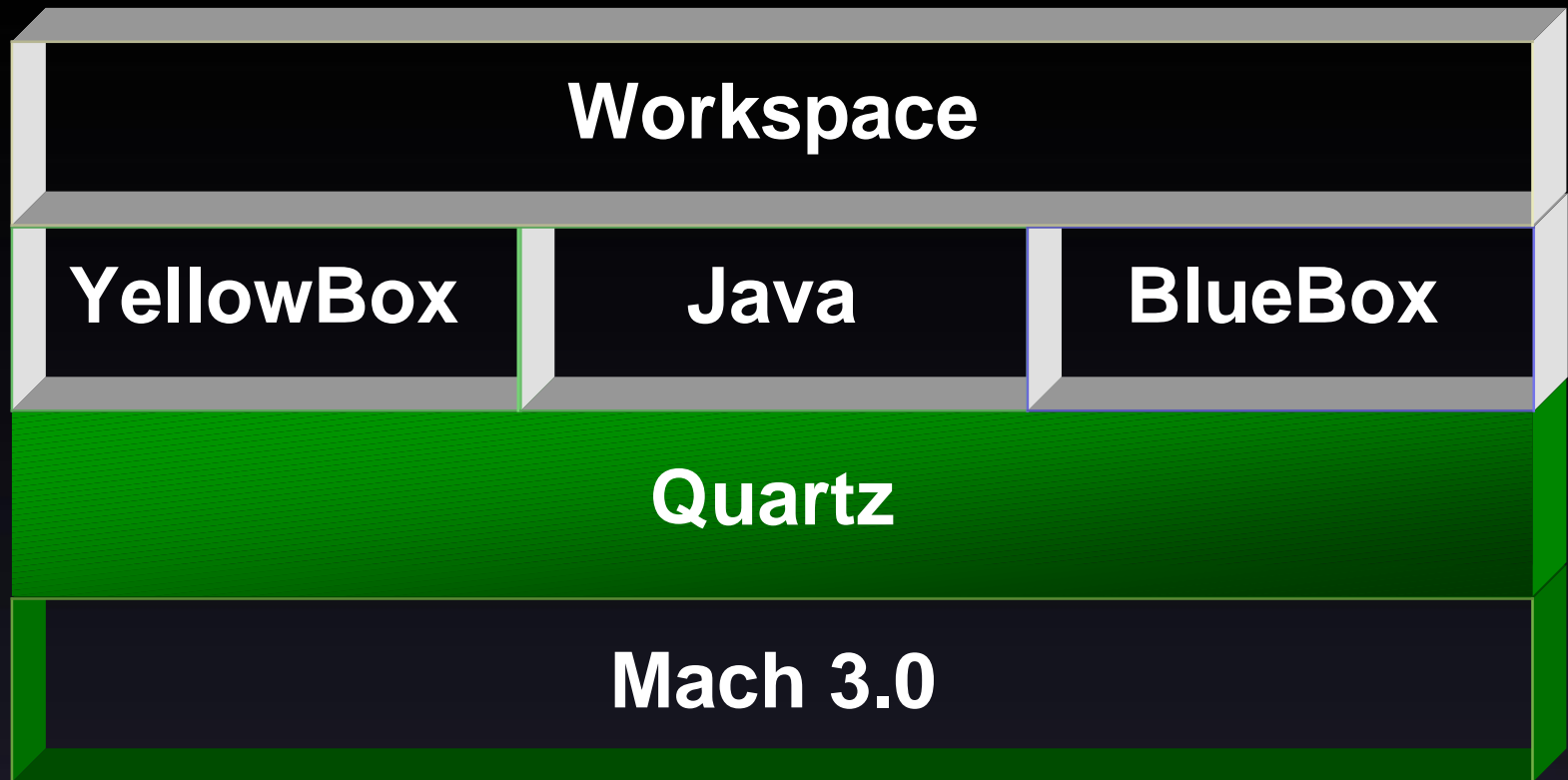
# Quartz: The Best of Both Worlds



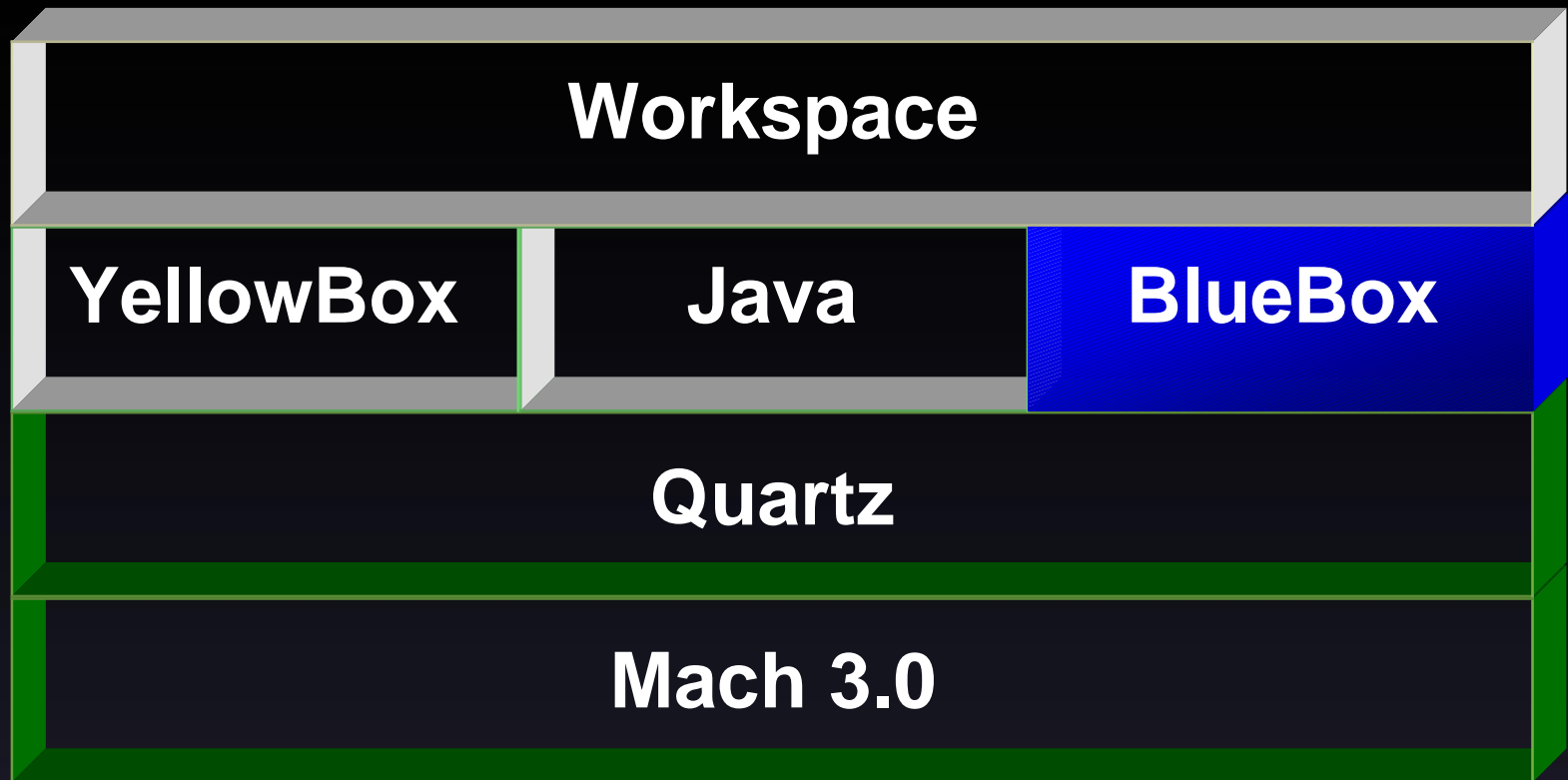
# Quartz

- Window server, client drawing
- Multiple client libraries: QuickDraw, OpenGL
- PostScript imaging model, PDF centric
- Advanced imaging
- Supports HW acceleration, AltiVec
- Supports a better BlueBox

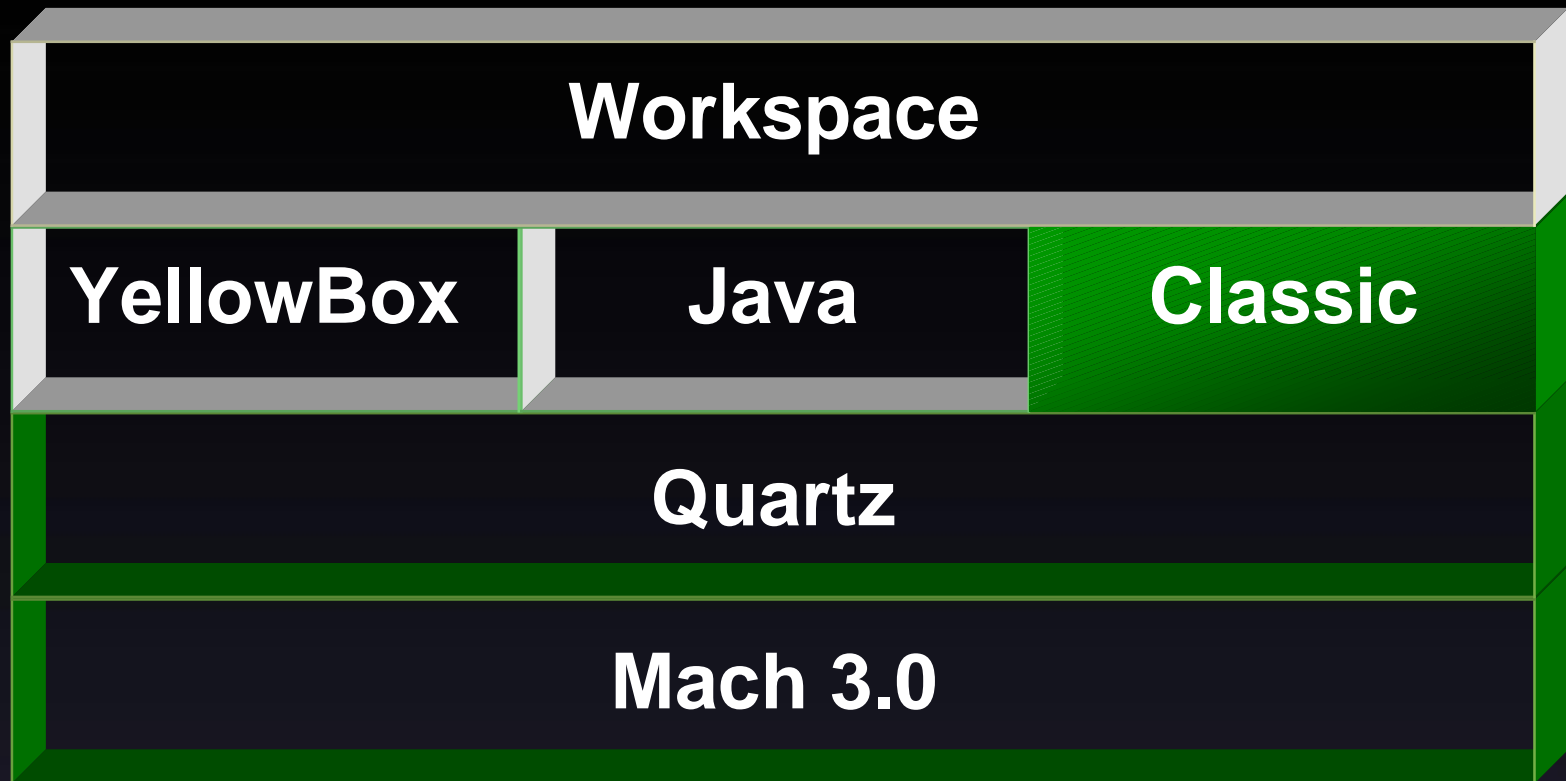




# Mac OS Compatibility Environment, aka BlueBox



# Without a Box





# Classic Applications

- Requirement for desktop
- Same high level of compatibility
- Same high level of performance

Believed impossible



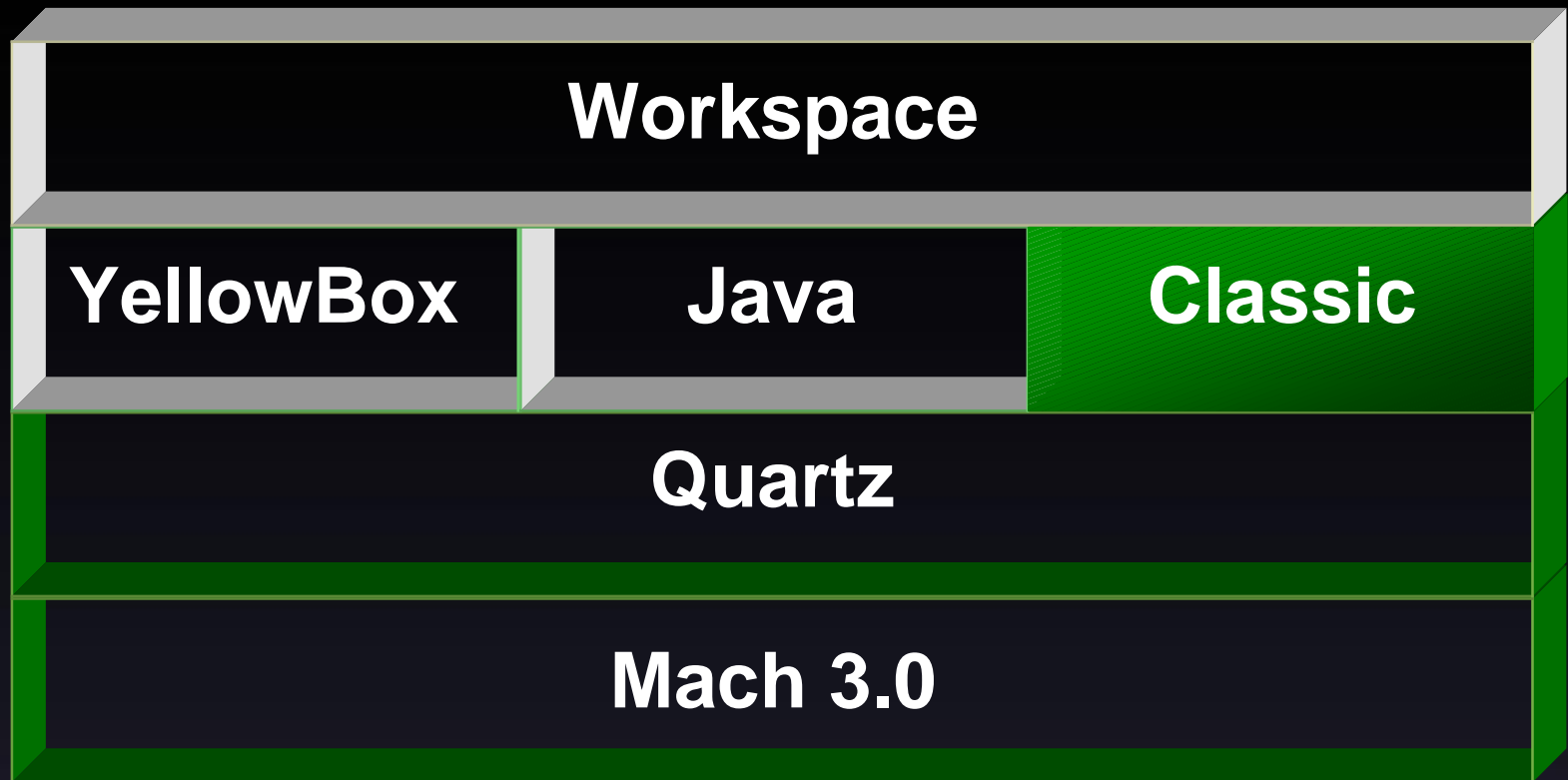


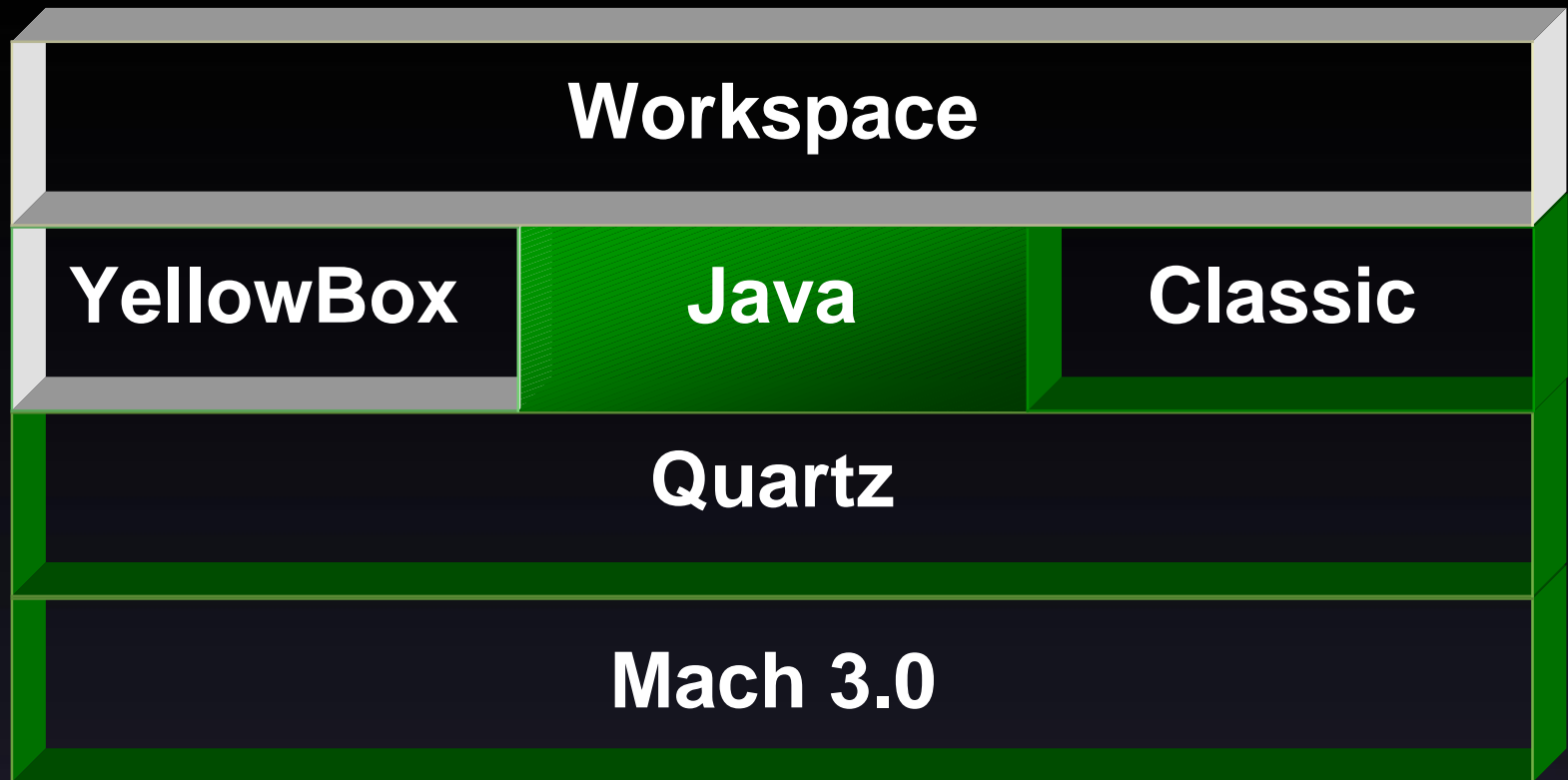
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# Demo: Classic

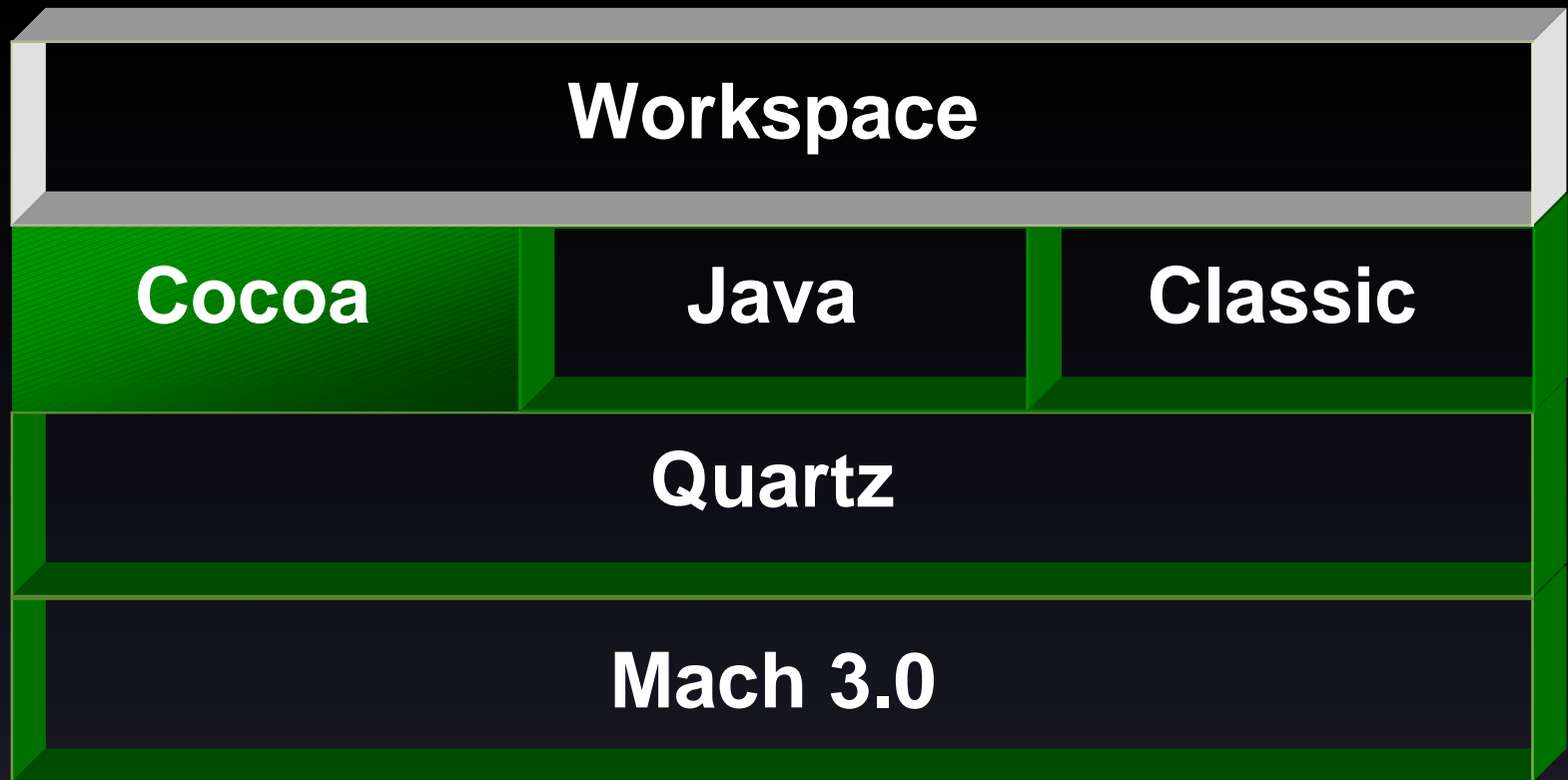
Roger Pantos

BlueBox Engineering





# Focus: Cocoa (YellowBox)



# Cocoa

- Fully OO
- Rich yet simple
- Expressive yet compact
- Great development environment  
Interface Builder
- Used for key system apps



**Workspace**

**Cocoa**

**Java**

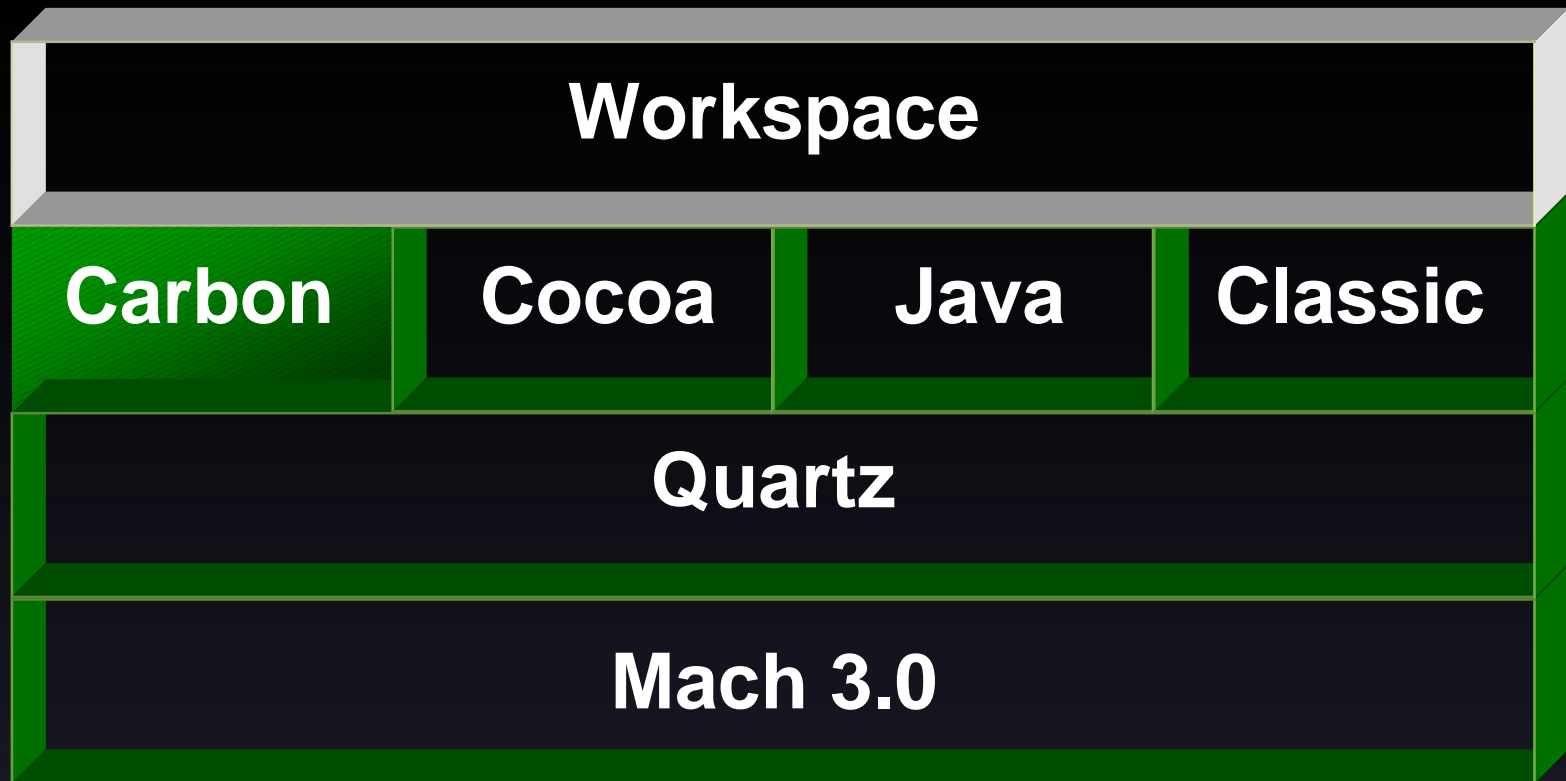
**Classic**

**Quartz**

**Mach 3.0**



# Add Carbon





# Tune-up

**8000  
Functions**

- 15 years of API development for Mac OS
- Many are essential
- Many prevent progress



# Tune-up

**2000**

**6000**



# Tune-up

**Carbon**



# Carbon

- An API  
Finalized spec—CarbonDataer
- Implementation on Mac OS X  
Latest Mac OS 8 code base
- Implementation on Mac OS 8  
Synchronized CarbonLib (8.1 and above)



**Workspace**

**Carbon**

**Cocoa**

**Java**

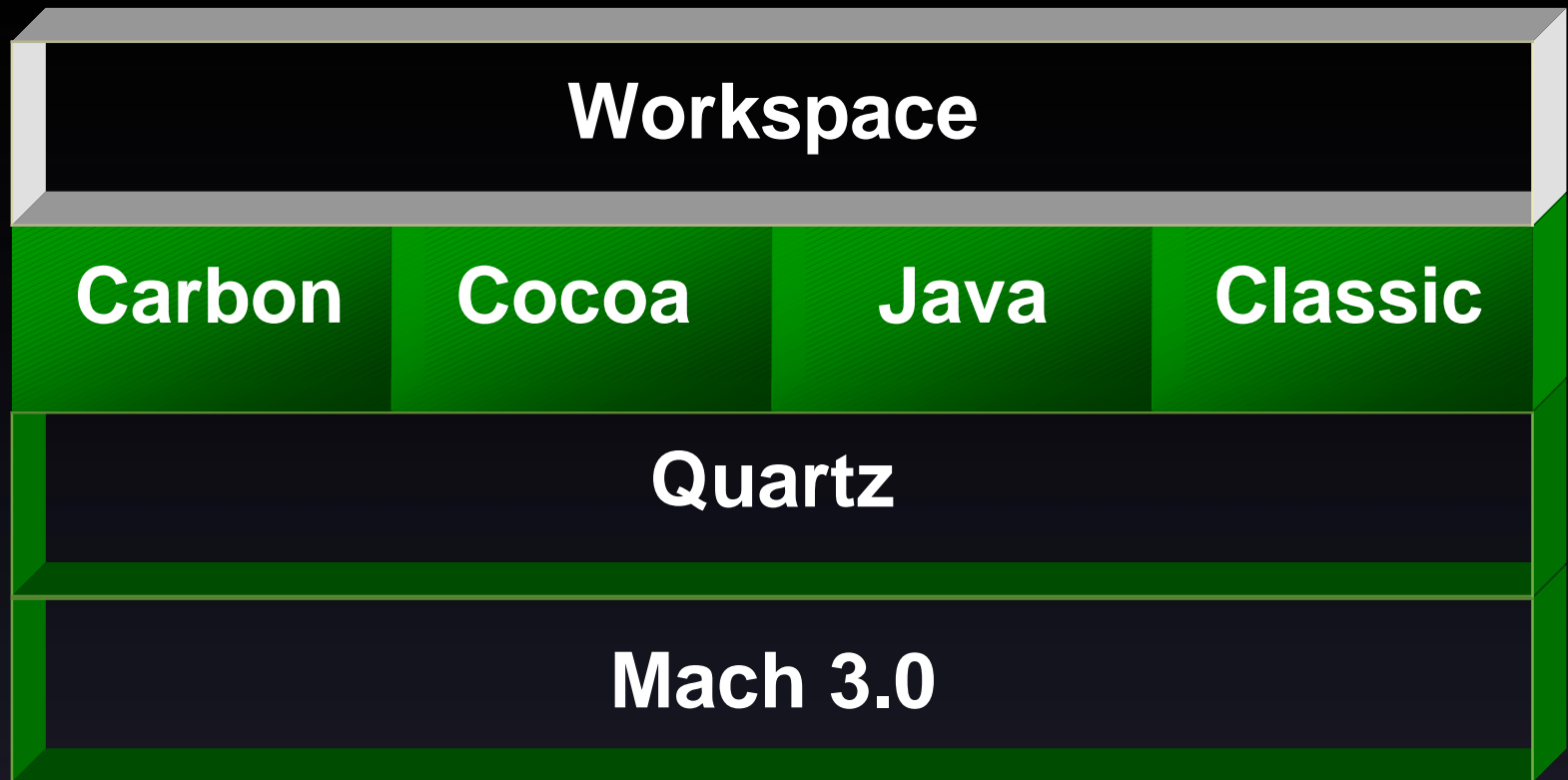
**Classic**

**Quartz**

**Mach 3.0**



# Application Frameworks



# Application Frameworks

- Equal citizens
- Simplified packaging
  - Single package, multiple localizations
- Shared infrastructure
  - Core Services: AppleEvents, Drag, . . .
  - Core Foundation





# Demo: Applications Integration

Christine O'Sullivan  
Director,  
Mac OS X Integration



**Workspace**

**Carbon**

**Cocoa**

**Java**

**Classic**

**Quartz**

**Mach 3.0**





# Integrate Familiar Desktop

## 8.5 User Experience

**Carbon**

**Cocoa**

**Java**

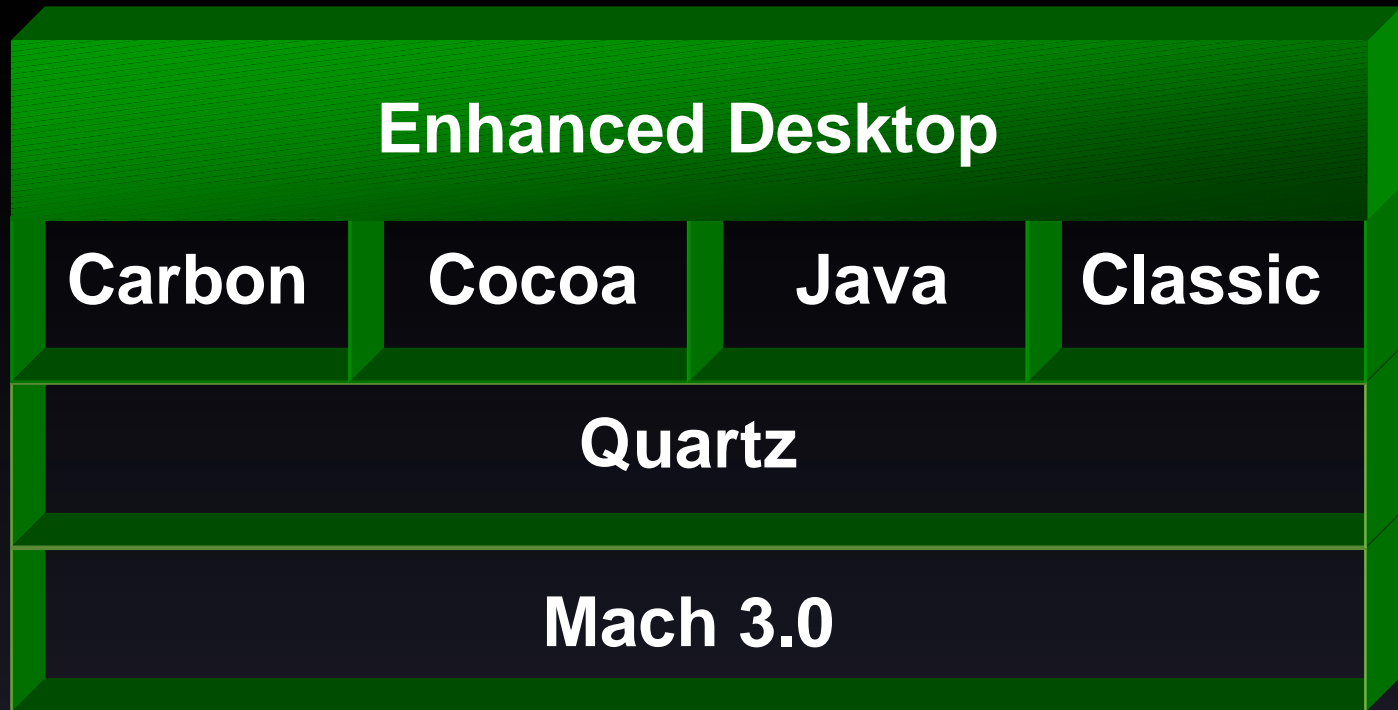
**Classic**

**Quartz**

**Mach 3.0**



# Enhance Familiar Desktop





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# Demo: Carbon Finder

Ken Bereskin

Director,  
Product Marketing

## Enhanced Desktop

**Carbon**

**Cocoa**

**Java**

**Classic**

**Quartz**

**Mach 3.0**



# Mac OS X

**Enhanced Desktop**

**Carbon**

**Cocoa**

**Java**

**Classic**

**Quartz**

**Mach 3.0**

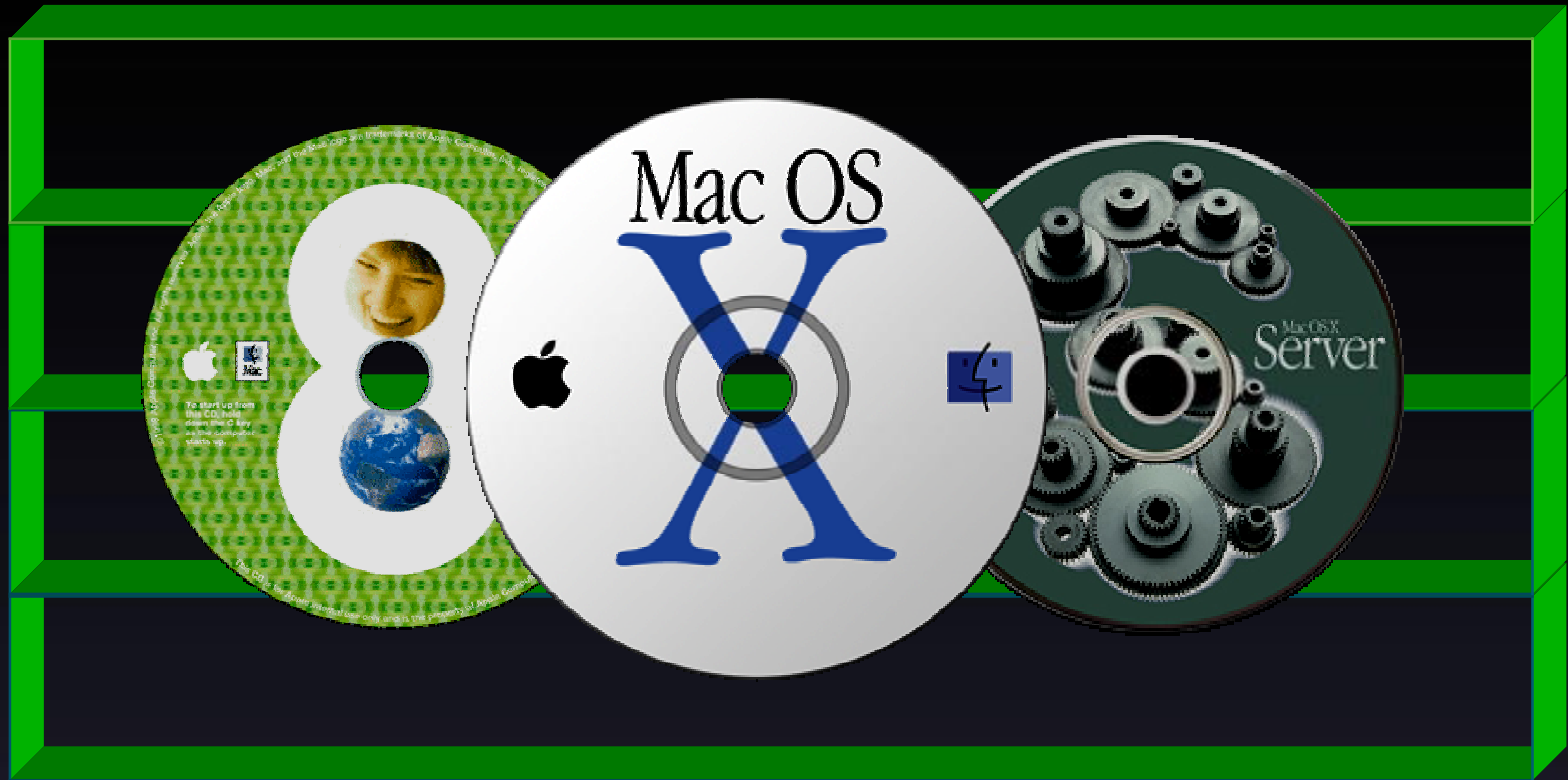


# Mac OS X





# Combining Strengths



# Developer Preview

- Mach 3.0—IOKit
- Quartz
- Carbon for Mac OS X
- CarbonLib for 8.1, 8.5, 8.6
- Cocoa, Classic
- Tools to build Carbon and Cocoa apps
- Final Carbon Spec



# Upcoming...

- Full Carbon
- Switch from Workspace to Carbon Finder
- Performance, Tools enhancements
- Developer Preview 2 late summer
- IOKit DDK
- Darwin update
- Mac OS X by early '00



# Pointers...

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**Core OS Overview:**

Foundation for the next decade

Hall A1

**Tues., 1:00PM**

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**Mac OS X Graphics Architecture  
(Quartz):** Crystalline graphics

Hall 2

**Wed., 9:00AM**

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**Carbon Overview:**

Tune-up your Mac application

Hall 2

**Tues., 1:00PM**

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**What's New in Cocoa:**

The best OO toolbox on the planet

Hall B

**Fri., 10:15AM**

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**Core Foundation Overview:**

Base for Carbon and Cocoa

Hall 2

**Wed., 1:00PM**

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**Mac OS 8 Compatibility (Classic):**

High compatibility, high performance

Hall 2

**Wed., 4:00PM**

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**And many more...**





Think different.<sup>TM</sup>

Think X



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