

WWDC 2009 Session Videos



Session	Name	iPhone	Mac	Level
100	iPhone User Interface Design Gain key insights into delivering a phenomenal user experience in your iPhone application. Learn the latest in best practices, methodology, and prototyping techniques.	√		Intermediate
101	Perfecting Your iPhone Table Views Table views present list information in thousands of iPhone applications, from games to utilities. Well-designed table views are critical to a responsive and effective user interface. Find out how to build yours to achieve a unique look and feel, maximize scrolling speed, and minimize memory consumption.	√		Expert
102	Mastering iPhone Scroll Views Scrollable content can be found in nearly every iPhone application. Find out how to do it right. Learn to process events in subviews and combine horizontal paging with vertical scrolling. Understand the best practices for zooming, scaling, and tiling inside your scroll views. This session gives you everything you need to produce efficient, high quality scroll views in your iPhone app.	√		Expert
103	Processing Multi-Touch Events on iPhone Get a strong understanding of the Multi-Touch technology built into iPhone OS. See the path that touch events take through the user interface and how to properly pinpoint an event's origin. Learn to recognize common gestures and make use of new accelerometer events to give users the intuitive experience they expect from an iPhone application.	√		Intermediate
104	What's New in Cocoa Touch iPhone OS 3.0 includes many enhancements to the UIKit framework that accelerate your development and improve your iPhone application's user experience. Familiarize yourself with new additions including In-App email, new table cell styles, an improved user interface for search, and much more.	√		Intermediate
105	Cut, Copy, and Paste on iPhone Cut, copy, and paste is a major new feature of iPhone OS 3.0. Learn how it can enrich your applications and how best to take advantage of it. Find out how to enable cut, copy, and paste in your custom controls, add undo support to your application, and use the system pasteboard to share data with other iPhone applications.	√		Intermediate
106	Building Localized Mac and iPhone Applications Users from across the globe are downloading more Mac and iPhone applications than ever. Internationalization is a critical part of the application design process that lets you easily expand your audience to new languages and countries. Learn the practical techniques behind efficient Mac and iPhone app localization and see how Xcode and Interface Builder help you build a multilingual application.	√	√	Intermediate
107	iPhone OS Networking Efficient networking code is essential to an iPhone application's overall performance. Learn all about the networking infrastructure on iPhone OS, as well as the BSD and Core Foundation networking APIs available to you. Understand how to write solid networking code for low-power, high-performance iPhone applications.	√		Expert
108	Concurrent Programming in Cocoa Snow Leopard has increased concurrency support in the Foundation and Application Kit frameworks. Find out how to make effective use of NSOperation to manage tasks and write multithreaded code to maximize your application's use of multiple CPU cores.		√	Intermediate
109	Pasteboards, Services, and Interoperability on Mac NSPasteboard provides the foundation for the application interoperability that all Mac users expect such as copy, paste, drag, and drop. Services harness the pasteboard, allowing users to integrate your app into their workflows across applications. Learn about significant enhancements to NSPasteboard and Services and how to leverage these capabilities in your app.		√	Expert

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110	Presenting User Data with Table Views and Browsers NSTableView and NSBrowser allow extensive customization that can add polish and ease of use to your application. Learn to create user interface elements such as inline cell editors, custom column headers, and preview columns. See how to combine them with the dynamic animation support in Leopard and Snow Leopard to add the sophistication your customers expect.		√	Expert
111	NSImage in Snow Leopard NSImage gives you easy access to the powerful image handling capabilities of Mac OS X. Learn the basics of NSImage and how it works with other Mac OS X graphics technologies including Core Animation, Core Image, and Quartz. Discover the latest best practices and performance tips for harnessing the full potential of NSImage in your application.		√	Intermediate
112	Text Processing in Cocoa As native applications receive more and more content from the Internet, text processing gains more importance. Snow Leopard adds several new Cocoa APIs and features to process text, performing most of the heavy lifting for you. Learn how these new and existing APIs help you to manage URLs; format dates, times, and addresses; read and write rich and plain text documents; and detect spelling mistakes.		√	Intermediate
113	Mac Programming for iPhone Developers iPhone OS and Cocoa Touch have already enlisted thousands of new developers to Apple's platform. The UIKit skills cultivated for iPhone programming translate extremely well to adopting the Cocoa AppKit framework for Mac OS X development. Learn how easy it is to add the growing Mac user base to your list of target customers.		√	Beginner
114	What's New in Core Data Both Mac and iPhone developers now have the power of Core Data at their disposal. See what's new in Core Data for both iPhone OS 3.0 and Snow Leopard. Learn the most efficient ways to employ Core Data in your next project while taking advantage of recommended design patterns. Walk through solutions to the most common problems facing experienced Core Data programmers.	√	√	Intermediate
115	What's New in Cocoa The Cocoa frameworks give you high-level access to the underlying power of Mac OS X. Get an overview of the latest Snow Leopard advances in key Cocoa frameworks such as Foundation and Application Kit. This session will orient you for the other Cocoa sessions that cover these technologies in further detail.		√	Intermediate
116	Cocoa Tips and Tricks With a few small changes to your code you can turn a good application into a great one. See how you can make efficient use of amazing new technology in Snow Leopard to make your application feel snappier, look better, and behave more elegantly. Learn the keys to avoiding common pitfalls, debugging efficiently, and using best practices throughout your entire development process.		√	Intermediate
117	User Events in Cocoa Understanding the flow of user events is an essential skill for every Cocoa developer. Learn how the responder chain routes user input events through your Cocoa application and use that knowledge to insert detours into the event path and monitor events effectively. These practices are sure to make your Mac application more interactive and responsive than ever.		√	Intermediate
118	Embedding Maps in iPhone Applications Using the new Map Kit framework that works with the Google Mobile Maps Service, you can now embed maps within your applications. Find out how to effectively display a map, create custom annotations that highlight places of interest, and turn location coordinates into readable addresses.	√		Intermediate
119	Finding Your Place with Core Location Core Location allows your apps to determine where your users are. Whether they're taking a picture, searching for nearby restaurants, or just looking on a map, there are many ways to leverage a user's location in your apps. Get the best practices for accuracy, performance, and battery life, and learn how to report information to your users in an efficient and elegant manner.	√		Intermediate
120	Apple Push Notification Service The Apple Push Notification service provides a way to alert your users to new information, even when your application isn't running. Send text notifications, trigger audible alerts, or add a numbered badge to your application icon. Learn best practices for optimal performance, consistency, and user experience.	√		Expert

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121	iPhone accessibility: Make your app compatible with VoiceOver iPhone 3.0 includes new technologies that can enable your application to meet the needs of customers with disabilities, and address guidelines for product accessibility. Get an introduction to the accessibility APIs in iPhone 3.0 and how to implement them in your application.	√		Intermediate
122	In-App Purchase on iPhone With iPhone 3.0 SDK you can request payment for subscriptions, additional game levels, or other content from within your applications. This session covers the entire purchase life cycle for in-app payments, including use of the new Store Kit APIs, the product submission process, proper product presentation, purchase authentication, and transaction validation.	√		Intermediate
123	iPhone View Controller Techniques iPhone OS 3.0 adds tremendous power to the view controllers behind your application's user interface. Explore the new support for alternate landscape views, contextual toolbars, and modal transition styles. Gain a strong understanding of a view controller's role, and learn how to apply that knowledge effectively throughout your application. These new features and best practices will save you time and dramatically improve your application's user experience.	√		Expert
124	Displaying Web Content in iPhone Applications iPhone SDK makes the WebKit engine that powers Safari available to every iPhone application. Using the UIWebView class, you can load web pages directly inside your application, display styled text with HTML and CSS, and display PDF and iWork documents. Learn to leverage your existing web content inside a native iPhone application with communication between your JavaScript and Objective-C code. Find out how to make the most of UIWebView in a clean and efficient manner.	√		Intermediate
125	Effective iPhone App Architecture Whether your iPhone app is in development or on the App Store, strong code architecture is an essential part of your daily process. Learn about good data modeling, communication between view controllers, and when to use delegates and notifications. Find out how to make important decisions about memory, speed, and a responsive UI. Developers of all skill levels can benefit from this thorough examination of iPhone SDK best practices.	√		Intermediate
126	Enabling Your Mac Applications for Assistive Technologies Mac OS X includes VoiceOver, a screen access technology for blind and low vision users that translates your graphical Mac application into an interactive, descriptive, spoken audio experience. Introduce yourself to the amazing capabilities of VoiceOver and learn how to implement the Accessibility APIs. Learn how just a few modifications can make a shipping application accessible.		√	Beginner
127	Advanced Accessibility: Best Practices and New APIs in Snow Leopard Mac users rely on the accessibility of your application in a growing number of ways, whether using VoiceOver, using AppleScript and Automator to build custom workflows, or using any one of the many third party assistive applications. Discover how to make your custom Cocoa views accessible to all of these users by implementing the NSAccessibility protocol, including many tips and best practices. Also learn about Snow Leopard accessibility additions and how to use them for your custom views.		√	Expert
128	Prototyping iPhone User Interfaces Learn how to turn your personal vision into an elegant iPhone application design. Explore your ideas through rapid prototyping and experience the iterative design process that leads to a truly innovative user interface. With some cool tricks and a few lines of code, see how a working prototype provides insight far beyond a static mockup. Watch your design evolve from good to great.	√		Intermediate
129	Text-to-Speech: Adventures with Alex Speech technologies have matured and are now mainstream, pervading personal computing, cell phones, cars, and telephone networks. Bring your application into the 21st century by adopting these technologies in your application. Speech synthesis, also called text-to-speech (TTS), converts text into human-sounding audible speech, delivering information to users without requiring them to shift attention from their current task. Learn about new speech synthesis features and APIs on Mac OS X Snow Leopard that help you easily incorporate speech synthesis into your application.		√	Expert
130	Performance Tuning with Shark and Intel's Processor Performance Events Intel processors have numerous hardware performance events that can be monitored as your program executes. These events offer valuable insights that can help you tune your application. Using Shark to collect these hardware events, Intel engineers will demonstrate strategies and techniques for improving your application's performance.		√	Expert

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131	Scaling Performance Using Grand Central Dispatch & Intel Libraries Scaling the performance of your application to get the most out of a multi-core Mac requires an understanding of the various tools and libraries available at your disposal. Intel engineers will demonstrate, with the help of a real-world use case, how you can use Apple's Grand Central Dispatch with Intel's Threading Building Blocks & Intel's Performance Primitives to improve application performance on Mac OS X.		√	Expert
132	iPhone Views and Animations The iPhone SDK provides a rich library of views and controls that you can use to build your user interface. Find out how to add your own capabilities to custom views and controls and make the best use of Core Animation to produce a truly unique iPhone application. Understand the design decisions and best practices for drawing and layout that go into a polished user interface.	√		Expert
200	Leveraging Web Content in Mac OS X Applications with WebKit WebKit lets you build Mac OS X applications that combine the rich user experience of Cocoa applications with dynamic web content. Walk through the development process of building an application that uses WebKit and learn design principles for making your application extensible for new features or updated content. See how to maintain a uniform look and feel in hybrid applications and discover the best practices for performance and error handling.		√	Intermediate
201	Safari and WebKit Overview Safari and WebKit have changed the way people design and interact with web content. Groundbreaking performance improvements, early adoption of cutting-edge web standards, and an intuitive set of integrated developer tools make Safari and WebKit the optimal platform for web developers on iPhone, iPod touch, Mac OS X, and Windows. Hear about the latest developments in Safari and WebKit and discover the emerging web technologies and trends of tomorrow.	√	√	General
202	Adding Innovative Styling and Animation to Webpages with CSS Effects Safari brings a new level of interactivity to the web by supporting the latest innovations in CSS on both the desktop and iPhone. Learn to take advantage of CSS animations and effects to create exceptional user interfaces and stylized content that make your web application more intuitive and visually appealing. Discover best practices for implementing the latest CSS technologies to deliver optimal performance.	√	√	Intermediate
203	Local Data Storage and Offline Web Applications for Safari Web developers can now create web applications that you can use even when you don't have access to the Internet. Discover how to cache web applications and store data locally so that the application is always accessible. Learn how to employ the latest HTML 5 offline storage technologies including simple key/value storage, local database storage for complex structured data, and application cache storage for your HTML, JavaScript, CSS and other webpage resources.	√	√	Intermediate
204	Building Compatible Websites Using Emerging Web Technologies Safari pushes the web forward by implementing the latest, most innovative HTML and CSS technologies. Adopt these technologies without creating multiple versions of your website to stay compatible with other browsers. Discover how to use object detection and fallback techniques to create a single web application that takes advantage of cutting-edge web standards and gracefully remains compatible with less sophisticated rendering engines.		√	General
206	iPhone Web Applications from Start to Finish Safari on iPhone provides a rich platform for delivering web applications that look like built-in, native applications. Get an overview of the technologies available for iPhone web applications and learn how to add advanced features such as location-based services, offline data storage, touch events through JavaScript, and rich accelerated graphics through CSS. Discover how to tailor your iPhone web application to hide the Safari user interface components and run in full-screen mode and learn how to create a version of your iPhone web application that is fully functional even when there is no Internet connection available.	√		Intermediate
207	Rapid Development with Safari's Integrated Developer Tools Safari contains the best set of development tools ever included in a browser. Discover how to effectively use these tools to fine tune your website. Learn how to efficiently debug JavaScript, profile JavaScript performance, inspect and edit CSS, optimize page load time, and test pieces of code on the fly.		√	Intermediate
208	Creating Safari Web Applications in Dashcode Dashcode 3.0 adds support for creating web applications optimized for Safari on iPhone and the desktop. See how to take your web application from design to deployment with Dashcode's built-in templates, drag-and-drop UI designer, and rich set of developer tools. Learn to use Dashcode to take advantage of the latest HTML 5 web standards such as <audio> and <video> tags, local data storage, and CSS animation to make your web application stand out.	√	√	Beginner

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209	Improving Accessibility in Web Applications Universal design describes a philosophical approach for improving product usability and accessibility for everyone, regardless of their degree of technical or physical ability. Explore the principles of universal design and discover specific techniques for implementing the W3C Web Content Accessibility Guidelines (WCAG). Learn to take advantage of new web technologies such as the W3C Working Draft for Accessible Rich Internet Applications (ARIA) to create advanced, AJAX-based web applications that meet the needs of those with disabilities-including those who use assistive technology like VoiceOver to interact with your web content.		√	Intermediate
300	Graphics and Media State of the Union Apple's Graphics and Media frameworks bring sweeping advances to developers with an incredible array of technologies for rich graphics, GPU computation, cutting-edge game development, and platform-optimized audio and video experiences. Learn how you can harness these capabilities in this overview session filled with in-depth information and captivating technology demonstrations.	√	√	General
301	Color Management for Snow Leopard Mac OS X uses advanced standards-based color management techniques to ensure that images, graphics, and video always look great on screen and on paper. See how ColorSync, Quartz, and QuickTime X can automatically color match digital media in your application. Learn color management best practices and understand how changes to system gamma may affect your application.		√	Intermediate
302	Getting Started with Graphics for iPhone iPhone OS provides an incredible suite of graphics technologies to handle your application's 2D and 3D graphics tasks. Get an introduction to the iPhone display architecture and learn essential details on UIKit, Core Animation, Quartz, and OpenGL ES. See which graphics technologies are right for your application. This session is perfect for new iPhone developers.	√		Beginner
303	Core Animation Techniques for iPhone and Mac Core Animation powers the dynamic user interfaces and visual effects seen on iPhone OS and Mac OS X. Come see Core Animation in action and learn about its layer-based architecture, advanced capabilities, and recommended practices. Find out how to use Core Animation in your application and go beyond the built-in animations provided with Cocoa and Cocoa Touch.	√	√	Intermediate
304	Game Development for iPhone, Part 1 The iPhone SDK delivers an amazing lineup of graphics, media, and mobile technologies for developing cutting-edge handheld games. Learn the insider techniques and best practices to harness iPhone capabilities in the most efficient and sophisticated way possible. Understand the existing technologies leveraged by thousands of game titles and the new features added in iPhone OS 3.0. We'll examine the many capabilities iPhone OS provides for game developers in this first of two sessions.	√		Intermediate
305	Game Development for iPhone, Part 2 The iPhone SDK provides a phenomenal platform for mobile game development. Explore the technologies available to iPhone game developers and learn essential best practices for your titles. Understand how the best games harness the rich capabilities of iPhone OS and receive expert guidance for creating a compelling and entertaining experience of your own. This is the second of two sessions covering iPhone game development techniques.	√		Intermediate
306	Quartz Composer Advances in Snow Leopard Quartz Composer is a powerful and extensible visual programming tool that seamlessly combines many of the core technologies of Mac OS X. Learn about the latest advances in Quartz Composer for Snow Leopard and the imaginative compositions that are now possible. Understand the improvements in the Quartz Composer workflow and learn about its integration with other Snow Leopard technologies.		√	Expert
307	Introduction to OpenCL OpenCL (Open Computing Language) lets a Mac OS X application tap into the vast computing power of the modern graphics processor (GPU). Discover the OpenCL architecture, its approachable C-based language, and powerful API for managing parallel computations. Attend this session to see how OpenCL can dramatically improve the speed and responsiveness of your application.		√	Intermediate
308	Harnessing the Power of OpenCL Dive deeper into the practical applications of OpenCL and learn techniques that yield incredible performance increases. See how experts refactor application code into optimized OpenCL kernels and gain insight into the best ways to take advantage of the OpenCL execution model and memory hierarchy. This is a perfect session for developers looking to push the performance envelope of their applications.		√	Intermediate

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309	Mastering OpenCL Discover the advanced OpenCL techniques that let you access the full computational capabilities of different GPU and CPU architectures. Gain vendor-specific kernel programming and dataflow best practices to realize the ultimate performance potential of OpenCL.		√	Expert
310	OpenGL Techniques for Snow Leopard OpenGL is the foundation for high-performance, hardware-accelerated graphics on Mac OS X. Attend this session to explore the full power of OpenGL through key best practices. See how to use OpenGL from multiple threads, across multiple GPUs, and with multiple displays. Learn how to integrate high-performance OpenGL graphics with the computational capabilities of OpenCL.		√	Expert
311	OpenGL ES Overview for iPhone OS OpenGL ES provides access to the stunning graphics power of iPhone and iPod touch. Learn what makes OpenGL ES unique on the iPhone and how it compares to desktop OpenGL. Learn how to access OpenGL ES from Cocoa Touch, and see how OpenGL ES can drive iPhone games and other mobile 3D applications.	√		Intermediate
312	OpenGL ES Tuning & Techniques Your application can create incredible visuals while maintaining high frame rates using OpenGL ES. Get specific recommendations to harness the iPhone and understand the best practices to keep your application on the fast path. Delve into advanced techniques for rendering visual effects and master the tools to measure and streamline their efficiency.	√		Intermediate
313	HTTP Live Streaming Introduction HTTP Live Streaming is a revolutionary new way to deliver a live video experience using the same technology that powers the web. Learn about the HTTP Live Streaming architecture, technology requirements, and how to prepare content for streaming. See the easy steps to integrate streaming into your application to provide live or on-demand video to your users.	√	√	Expert
314	Transitioning to QuickTime X Snow Leopard introduces QuickTime X, the next-generation path for efficient playback of modern standards-based media. Explore QuickTime X architecture, codec support, and color management details. See how QTKit delivers the power of QuickTime X through an object-oriented Cocoa framework. Learn how to transition your QuickTime 7-based application to the rich capabilities of QuickTime X.		√	Intermediate
315	Audio Development for iPhone OS iPhone features a state-of-the-art audio engine, enabling the most innovative mobile music and audio applications available. Get introduced to the range of powerful audio APIs provided in the iPhone SDK and understand how the audio system works with popular audio formats. Learn the recommended practices for handling audio interruptions, responding to user actions, and playing multiple sounds simultaneously.	√		Intermediate
316	Audio Processing and Playback Core Audio delivers professional-grade audio processing and playback capabilities to any application. Dive deeper into the functionality of Core Audio and see how to take advantage of its richness in your own code. See how to apply the AV Foundation API to play sounds or record audio. Understand the best practices to adopt when using OpenAL for game audio, and uncover the power of I/O units for low-latency input and output.	√	√	Intermediate
317	Accessing the iPod Library Bring the user's music into your application through the updated Media Player in iPhone OS 3.0. See how to access songs, podcasts, or audio books stored in the iPod library. Learn the mechanism to play, repeat, and shuffle songs or whole playlists. See how to create sequences of songs using custom searches and built-in user interface controls.	√		Intermediate
318	Peer to Peer Networking with Game Kit Add multi-player functionality to your games using the peer to peer networking capabilities of Game Kit, a new framework in iPhone OS 3.0. See how to access the standard interface for discovering remote players and sending data or game state over a Bluetooth connection. Learn how this new framework can be used for more than just games and discuss how you can take advantage of in-game voice over Wi-Fi.	√		Intermediate
319	OpenGL ES Shading & Rendering The OpenGL ES Shading Language lets you tap into the programmable pipeline enabled by OpenGL ES 2.0. Learn how to create spectacular visual effects with vertex and fragment shaders. Find out how programmable shaders can accelerate complex renderings and transform your application.	√		Expert

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320	Image Processing and Effects with Core Image Create stunning visual effects and perform sophisticated imaging operations with Core Image. Discover how you can use Core Image to adjust still images, enhance video playback, and process digital camera RAW files. Learn how to create your own custom image-processing filters and see how to optimize their performance.		√	Intermediate
400	Developer Tools State of the Union See the latest innovations in Apple's developer tools for Mac and iPhone. The Developer Tools Engineering team will demo the latest features in Xcode, Interface Builder, and Instruments and show you how to take advantage of the great new technologies in Snow Leopard and iPhone OS 3.0. This session will get you excited for the introductory, new technology sessions and the deep-dive sessions to be presented throughout the week.	√	√	General
401	Improving Your Application with the Xcode Static Analyzer Xcode in Snow Leopard introduces a radical new static code analysis feature for identifying potential coding mistakes, security concerns, and other issues beyond normal compiler warnings and errors. The analyzer's lead engineers will demonstrate how the analysis works and how Xcode's integrated workflow can help you write better applications.	√	√	General
402	Compiler Overview Catch up on the latest innovations in Apple's rapidly advancing compiler technologies. See how to use GCC and LLVM in your own projects to maximize application performance. Understand the innovations in LLVM-GCC and find out how you can use it in your own testing and development.	√	√	Intermediate
403	AppleScript and Cocoa Bridge AppleScript is now a first-class language for Cocoa development thanks to the updated Cocoa Bridge in Snow Leopard. Discover how the Cocoa Bridge gives AppleScript consistent access to all the Cocoa frameworks, including full support for bindings and connections in Interface Builder. Learn how to transition your applications from AppleScript Studio to this more powerful, efficient architecture.		√	General
404	Using Automator and Services to Integrate with Mac OS X Automator has been enhanced to enable creation of system Services in Snow Leopard. Learn how to build Services, create custom Automator actions and extend the flexibility of your application using Automator workflows. See how your application can become more integrated into your users' daily lives, enhancing the power of the entire system.		√	General
405	Java SE 6 on Snow Leopard As Snow Leopard moves to Java 6, learn modern techniques for the best possible Mac experience while maintaining cross-platform compatibility using the latest version of Java. Find out how Mac OS X continues to build on its strong Java support with new UI enhancements, new APIs, and a next-generation Java Applet browser plug-in.		√	Expert
406	Programming with Blocks and Grand Central Dispatch Grand Central Dispatch (GCD) is a revolutionary system technology in Snow Leopard that allows your application to take full advantage of today's multi-core Macs. Learn about the new blocks feature for Objective-C, C, and C++ as well as the key concepts and APIs necessary to understand and use GCD. Learn to incorporate these new features into your modern, multi-core Mac OS X application.		√	General
407	Migrating Your Application to Grand Central Dispatch Grand Central Dispatch (GCD) lets you write concurrent and asynchronous code without the burden of direct thread management. Learn from the experts how to simplify your multithreaded code base by transitioning to GCD. A must-attend session for anyone interested in GCD with experience in other threading models.		√	Expert
408	Understanding Grand Central Dispatch in Depth Grand Central Dispatch (GCD) offers you unprecedented power and ease in optimizing your code for maximum clarity and performance. Build on your knowledge of GCD by exploring the architecture and design patterns that will make your application perform at its best. This deep dive is highly recommended for anyone looking to master GCD.		√	Intermediate
409	Getting Started with Interface Builder Interface Builder lets you rapidly design your application's user interface on Mac and iPhone. Jump-start your next application by learning how to integrate Interface Builder into your Xcode workflow, connect your code to your interface elements, and visually design your application's interface. Build a strong set of skills that will help you create quality applications quickly and easily.	√	√	Beginner

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410	iPhone Application Design Using Interface Builder Interface Builder provides the easiest route to an elegant and well-designed iPhone application, letting you seamlessly implement many popular interface styles. Take your experience with Interface Builder to the next level and learn how to efficiently build and structure your iPhone interface. Find out how to create a multi-screen interface, work with view controllers, employ navigation controllers, and properly isolate data across master-detail interface pairs.	√		General
411	What's New in Instruments Instruments is a versatile and powerful analysis tool for visualizing, understanding, and optimizing your Mac or iPhone application. Discover how Instruments has evolved to analyze Grand Central Dispatch, profile launchd, perform fine-grained sampling, and offer other new data collection views for tuning your application.		√	Expert
412	Advanced Debugging and Performance Analysis Learn from the experts as they dive into the depths of an application to track down, identify, and fix the most difficult bugs. Get the most out of Xcode's debugger and symbolicate crash traces, add DTrace scripts to your tool set, and learn other advanced debugging skills.		√	Expert
413	Performance Tuning with Shark on Mac and iPhone Shark is a powerful, low-overhead tool for collecting accurate information about the performance of your Mac or iPhone application. Move beyond the basics to discover how to interpret what Shark reveals about the inner workings of your application and to identify and fix difficult performance problems.	√	√	Intermediate
414	iPhone Performance Optimization with Instruments Instruments is a powerful tool for visualizing what is happening within your iPhone or Mac application. This iPhone-focused session walks you through the collection of valuable runtime data from your application. Drill down using Instruments' latest data mining capabilities to understand memory usage and identify leaks, analyze drawing performance, and relate this information back to your source code.	√		Expert
415	Optimizing Performance on iPhone To create an immersive iPhone experience, your apps need to respond instantly to your users, start up quickly, and use power efficiently. Learn the techniques that optimize CPU usage to minimize power drain, make efficient use of available memory, and give your table views the smooth scrolling users expect. Discover this and a wealth of other best practices for making your iPhone applications perform at their best.	√		Intermediate
416	Understanding Memory Management on iPhone Memory management is a key skill for any iPhone developer. Efficiently using the available RAM on iPhone will keep your application running smoothly. Walk through techniques that will keep your app's memory footprint to a minimum, understand how the reference counting model works, and learn to properly respond to the memory warnings iPhone OS provides. The best practices covered belong in every iPhone code's toolbox.	√		Intermediate
417	Managing the iPhone Development Process Xcode provides powerful tools for managing your iPhone development process. Learn to use Xcode's Organizer for device and profile management, use the iPhone Developer Portal to manage your devices and team, track down bugs by symbolivating crash reports, and run an effective beta program for your application.	√		Intermediate
418	Customizing Xcode for Your Development Workflow Learn to customize Xcode features such as code completion, the code editor, and key bindings to suit your taste. Discover new Xcode shortcuts to documentation, sample code, build-results views, and build settings. Find other useful ways to enhance your coding sessions, whether you are a new or experienced Xcode user.	√	√	Intermediate
419	Objective-C and Garbage Collection Advancements Objective-C for Mac OS X continues to advance at a rapid pace with the addition of properties, garbage collection, and now with Snow Leopard, blocks and other performance-oriented improvements. Learn to take full advantage of the modern Objective-C runtime. Explore how to utilize garbage collection in conjunction with Grand Central Dispatch to create lightning-fast applications all while the runtime manages memory for you. Get on the path to becoming an expert Objective-C developer.		√	Intermediate
420	Introduction to Objective-C Objective-C is the language of choice for development on both Mac OS X and iPhone OS. Understanding Objective-C basics is key to creating great applications. Learn about its syntax, common classes, design patterns, memory model, and runtime engine. If you're new to Objective-C or just need a good refresher, this session is for you.	√	√	Beginner

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421	Introduction to Core Data on iPhone Core Data is a powerful, efficient framework for data management and persistence on Mac OS X and iPhone. Learn how Core Data uses entity relational mapping, makes data storage and retrieval more efficient, and even helps you to display your data more easily. Explore the key components of the Core Data architecture and discover how Core Data can accelerate your iPhone application development.	√		Beginner
422	State of the Art Cocoa: Application Design Innovations are a core element of Cocoa development on Mac OS X, from new compiler technologies, runtime advancements, and multi-processing APIs to high-level frameworks for application design, interaction, and presentation. Add your own creativity, and the result is a truly modern application. Discover how all of the core Cocoa technologies come together to help you create state-of-the-art products.	√	√	Intermediate
423	Introduction to iPhone Development Tools Work through the iPhone application development process step by step, as you see the developer tools put through their paces. Learn how your team can efficiently manage certificates and provisioning profiles within your project, how to use Instruments to analyze memory and performance in your application, and compare testing both on iPhone and in the Simulator.	√		Beginner
424	Introduction to Cocoa and Cocoa Touch Development with Xcode The Xcode project system scales from building the simplest Mac and iPhone applications to the most complex. Get a complete overview of the system, including how to create custom build configurations, support unit tests, use compiler settings to track down coding errors, build 32- and 64-bit universal applications, and use SDK settings to ensure compatibility for your target customers.	√	√	Beginner
425	Designing Your Cocoa Application for Concurrency Concurrency is a powerful but complex opportunity for modern applications. Explore challenges and solutions for designing multi-threaded applications. Examine strategies for working with notifications between threads, processing data asynchronously, and maximizing your application's efficiency with the file system and network.		√	Intermediate
426	State of the Art Cocoa: User Interface Design Often, the difference between an amazing application and a merely adequate one lies in the level of polish applied to the user interface. Learn how to take a functional Interface Builder project and add the subtle details that make the user experience feel intuitive and look more attractive. Find out how to add custom drawing and controls to get the exact effect desired, and even how to add Core Animation to make your application shine.		√	Intermediate
500	Managing Processes with launchd launchd is the primary tool on Mac OS X for automatically launching processes on behalf of the system (daemons) or individual users (agents). Find out how launchd's dynamic architecture makes your Mac more robust and responsive while simplifying the development and deployment of many kinds of helper programs. Dive into the details of the launchctl utility and launchd property lists. Learn how to restructure your programs to take advantage of the services provided by launchd. Explore the many levers launchd provides for system administrators to fine-tune the performance and behavior of Macs on their network.		√	Intermediate
501	Managing Kernel Extensions Snow Leopard provides a new kernel linker and kernel extension loading system that makes managing kernel extensions easier than ever, especially when dealing with multiple architectures. See new features, such as architecture-specific properties and cross-architecture symbol generation. Find out how to streamline your KEXT development process and adapt your KEXT to work with both 32-bit and 64-bit kernels.		√	Expert
502	Creating I/O Kit Drivers for Multiple Architectures and OS Versions Learn how to structure your I/O Kit device driver project to support multiple operating system versions and both 32-bit and 64-bit kernels, all from a single code base. Explore how Mac OS X tools support building, loading, and debugging kernel extensions for a universal environment.		√	Expert
503	Creating Secure iPhone and Mac OS X Applications Security is a critical facet of any successful application. Mac OS X and iPhone provide a great foundation for security, and your app can build on that foundation. Discover emerging security threats and learn preferred techniques for securely coding, reviewing, testing, and installing your software. Gain insight into high-priority areas such as string handling, media playback, and file system permissions.	√	√	Intermediate

Session	Name	iPhone	Mac	Level
504	Assigning Your Application an Identity with Code Signing Code signing allows Mac OS X to establish and verify your application's identity without user interaction--even after you've updated your application. Find out how digitally signing your application ensures the integrity and security of your code and enables the system to recognize and alert users to unauthorized changes. Learn how signed applications work, how to sign your Mac OS X applications, and how signing improves your customers' experience.		√	Intermediate
505	Managing User Privileges and Operations with Authorization Services Authorization Services provide a secure, consistent way to manage privileged operations -- those that access restricted portions of Mac OS X or your application. Learn best practices for factoring your application to more safely carry out privileged operations. Also learn how to improve the user experience of your application by creating custom authentication and authorization plug-ins that deal with restricted data.		√	Intermediate
506	Designing USB Audio Class Devices for Mac OS X Designing USB audio class devices that take full advantage of Mac OS X is a critical skill for those developing USB Audio Class 1.0 and 2.0 devices. Discover key details of the Snow Leopard USB audio driver and learn about high-speed streaming, clock domains, latency reporting, and device status. See how to optimally configure descriptors to ensure that your device accurately publishes audio controls and device names.		√	Expert
507	Creating iPhone Apps that Communicate with Accessories iPhone OS 3.0 applications can now communicate with accessories, through either the 30-pin dock connector or wirelessly using Bluetooth. Your applications can now retrieve data from external sensors or even control accessories with a sophisticated, Multi-Touch interface. This session covers how to use the new External Accessory framework: a standard interface for sending and receiving data and instructions between your app and an external accessory.	√		Intermediate
508	Zero Configuration Networking Using Bonjour Bonjour is a key networking technology used in all of Apple's network products, from iMacs and MacBooks to AirPort Extreme, Apple TV, and iPhone. Learn how to use the Bonjour APIs to make your network application work with Back to My Mac and how to use the Bonjour APIs on iPhone and iPod touch to make amazing handheld network applications.	√	√	Intermediate
601	Integrating iPhone into the Enterprise iPhone has become a leading choice for mobile professionals. Find out about configuring and deploying iPhone in your organization, learn tools and techniques for configuration and deployment of native and web-based iPhone applications, and discover how server-side technologies integrate with iPhone, all from the IT professional's perspective.	√		Intermediate
602	iPhone Configuration Creation and Deployment iPhone configuration profiles make mass configuration of iPhones a snap. With configuration profiles, your organization can deploy account information, password policies, secure access settings, certificates and more, all within a single package. Get the latest details on the iPhone configuration profile file format, new additions to the managed services they support, Apple's profile creation tools for Mac OS X and Windows, and new deployment options that make profile distribution even easier.	√		Intermediate
603	In-House App Development for iPhone iPhone SDK provides in-house developers a compelling platform for the creation and deployment of mission-critical business applications. Come learn the networking, security, and web services capabilities most relevant to an in-house developer, including tips and techniques useful for creating web, native, or hybrid applications that leverage existing IT resources.	√		Intermediate
604	Managing Home Directories with Mac OS X Server Mac OS X Server delivers flexible options for managing your organization's user home directories including Network Home Directories, Mobile Home Directories, Portable Home Directories, and External Accounts. Learn which of these options is best suited for your environment, while getting field-tested best practices for home directory deployment and management. See how new features in Snow Leopard Server enhance your options for managed home directories.		√	Expert
605	Contact Management with Snow Leopard Server, Snow Leopard, and iPhone Centralized contact management is critical to organizations of all sizes. Learn how Address Book Server in Snow Leopard Server provides CardDAV standards-based contact management services. Also learn how Address Book in Snow Leopard and Contacts in iPhone connect with enterprise contact management systems such as Address Book Server, LDAP, and Microsoft Exchange.	√	√	Intermediate
606	Adding Authentication, Authorization, and Access Controls with the Open Directory Framework Integrating Snow Leopard's Open Directory framework allows your application to provide authentication, authorization, and access controls. Learn how to implement common features such as record lookup, search and authentication, best practices for doing it right the first time, and critical debugging techniques and tools.		√	Intermediate

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607	Using Services in Snow Leopard for Scripting IT Tasks The power of IT is expressed not only in the management of systems, but in enabling others to do their jobs smoothly and efficiently. The dramatically redesigned Services architecture in Snow Leopard lets you put management tools at the "point-of-need" where staff and managers require them the most. Join the experts as they demonstrate Services integration strategies involving a range of standard computer languages and applications.		√	Intermediate
608	Snow Leopard Server Setup: Under the Hood Snow Leopard Server includes a powerful new Setup Assistant that streamlines the configuration of your server. Learn from the experts about the rich set of functionality that the new setup experience provides for several different network topologies. Get a behind-the-scenes glimpse of how the Setup Assistant can automatically configure other network devices such as client computers, Airport Extreme, and Time Capsule to provide seamless network connectivity for local networks as well as the Internet.			Intermediate
609	Podcast Composer In-Depth Podcast Composer provides a visual step-by-step approach to easily build powerful workflows for Podcast Producer. Get in-depth information from the experts as they show you how to get the most out of this new application. Find out best practices for integrating with Podcast Library and learn how you can incorporate your own content and customize workflows to meet the needs of your organization.			Intermediate
610	Mac OS X Server State of the Union Mac OS X Server uniquely combines a wealth of powerful--yet easy to use and configure--services that elegantly simplify communication and collaboration in organizations of all sizes. Learn the latest on Mac OS X Server's technologies for streamlined mobile access; enhancements to mail, calendar, contacts, and wiki services; advanced capabilities in Podcast Producer 2; and an update on Mac OS X Server's performance and storage capabilities.	√	√	General
611	What's New for Wiki Server 2 Wiki Server 2 in Snow Leopard Server allows any organization's users to collaborate more easily and effectively. Learn about new features such as Quick Look previews of wiki attachments in the browser window; content searching across multiple wikis; and wiki and blog templates optimized for viewing on iPhone. Wiki Server 2 also introduces My Page, which gives each user one convenient web portal to view and create wikis and blogs, use web calendars, track wiki updates, and access webmail.	√	√	Intermediate
612	Calendaring Solutions in Snow Leopard Server, Snow Leopard, and iPhone Centralized calendaring is critical to organizations of all sizes. Learn how iCal Server 2 in Snow Leopard Server provides standards-based event and resource management services. Find out how iCal in Snow Leopard and Calendar in iPhone connect with enterprise calendaring systems such as iCal Server 2, CalDAV, and Microsoft Exchange.	√	√	Intermediate
613	What's New for Podcast Producer 2 Podcast Producer automates and streamlines the capture, encoding, and publishing of high-quality podcasts of your organization's lectures, training, and other presentations. Snow Leopard Server introduces a host of new features including Dual Source Video capture, Podcast Composer, and Podcast Library. These features let you create picture-in-picture podcasts, provide an easy-to-use application for designing video-based Podcast Producer workflows, and define a new publishing model that uses Atom and RSS for providing long-term media file storage and organization.	√	√	Intermediate
614	What's New in Directory Services Open Directory provides standards-based storage and organization of user and network resource information. Get the details on Open Directory enhancements in Snow Leopard Server including a new UI for binding, refinements to Active Directory integration, password synchronization, and performance improvements.			Intermediate
615	System Image Creation and Deployment with Snow Leopard Server System Image creation and deployment is the best way to ensure consistent configuration of Macs in your organization. Learn how to use the new features in System Image Utility 2 to create NetBoot, NetInstall, and NetRestore images to simplify the deployment of Mac OS X across your organization.		√	Intermediate
616	System Management with Apple Remote Desktop Apple Remote Desktop is the best way to provide system management for the Macintosh computers on your network. Learn from the experts how to optimize Apple Remote Desktop for various networking topologies across NATs, LANs, and WANs. Discover how Task Server can help manage your mobile computers. Come for the latest tricks for easing your system management duties with the Send UNIX task.			Intermediate

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617	Deploying Mobile Access Server Secure remote access to your business network has never been more critical than in today's increasingly mobile world. The Mobile Access Server provides a path through a corporate firewall for IMAP, SMTP, HTTP, and CalDAV without using VPN. Learn about the features of, and deployment tips for, this powerful new service in Snow Leopard Server.	√	√	Intermediate
618	Scripting for Sys Admins Snow Leopard and Snow Leopard Server deliver the widest array of scripting technologies in a single box. Learn how to write scripts using a variety of tools and languages to automate repetitive tasks for system setup, configuration, and other management duties.			Intermediate
619	Secure Access with 802.1X 802.1x is the standard for authenticated access to organizational resources by a remote Mac, iPhone, or iPod touch. Discover salient details of the 802.1x specification and gain practical insights into configuring authenticators, authentication servers (RADIUS), and supplicants from several large organization use-cases.	√	√	Intermediate
620	Performance Tuning for Mac OS X Server Apple's advanced hardware, including Mac Pro and Xserve, paired with Snow Leopard Server, delivers substantial performance and helps to ensure that critical applications and services perform optimally—even under high utilization conditions. Get the latest benchmarks and details on how to maximize performance and enhance scalability of Snow Leopard Server installations across various workloads and configurations in your environment.			Expert
621	Deploying Podcast Producer Podcast Producer streamlines consistent creation, production, and distribution of rich media assets. Learn deployment best practices from experts with real-world installations. Discover how to use new features such as Podcast Library for seamless integration with iTunes U, adding content to in-house web portals, and publishing training materials.			Intermediate
622	Moving to Snow Leopard Server Mac OS X Server provides a wealth of services that your organization relies on every day. To ensure an easy transition, system administrators should devise and follow a solid migration plan for moving to Snow Leopard Server. Learn key planning points, strategies, and methodologies for migrating wikis and blogs, file services, resource and client data and management details, NetBoot information, and more.			Intermediate
623	The Technologies that Empower Podcast Producer Podcast Producer leverages several industry-leading Snow Leopard technologies. In this session, technology experts will provide a detailed overview of the key Podcast Producer technologies, discuss each one in depth, and present examples that will empower you to accomplish more with Snow Leopard and Podcast Producer.		√	Expert
624	Xsan Configuration, Optimization, and Integration Best Practices Measuring your storage needs in the range of terabytes requires a solid infrastructure and an in-depth understanding of networking and Fibre Channel. Learn how to specify and implement the types of storage solutions used by some of the largest media, IT, and HPC organizations. Discover how to plan for a seamless deployment that easily integrates with your existing infrastructure. Come hear configuration details and optimization tricks for ensuring the highest Xsan performance for your environment.			Expert
625	iPhone Security Best Practices iPhone is engineered to provide secure access to your organizational information. Learn how to combine iPhone's built-in security features with organizational security policies for data access, secure iPhone configuration and deployment, and app development techniques, to ensure your in-house information stays in house.	√		Expert
700	WWDC Sessions Kickoff	√	√	General
701	Core OS State of the Union At the heart of Mac OS X and iPhone OS are a number of breakthrough technologies and a rock-solid UNIX foundation. Learn about the latest advancements in the operating system foundations of Mac OS X and iPhone, and get an overview of conference sessions coming during the week. Discover the keys to developing innovative products on the world's most advanced operating systems.	√	√	General

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702	Publishing on the App Store Understand how to publish your finished app on the App Store. The App Store handles hosting, payment processing and automatic software updates. Learn how to setup your iTunes Connect account, provide details about your app, define system requirements, setup pricing and availability, define In-App Purchase inventory, pricing, and descriptions, assign Parental Controls, and upload your application and localization information. The App Store makes distribution easy so all you need to do is focus on developing your application.	√		Intermediate