iOS Under the Hood

Ted Landau

Macworld Expo US954 January 28, 2011 3:30 PM - 4:45 PM This is a not-yet-finished draft.

Most graphics have been removed.

A full final version will be posted around the time of my session.

QUIT APPS FROMTHE BAR A useful troubleshooting fix



- Force apps to update
- Force exit a screen

IMPROVE FILE SHARING

- File Sharing via iTunes less than ideal
- Use Dropbox
- Options for iWork apps
 - DropDAV!

MAKE AIRPRINT USEFUL

- In Mac OS X10.6.5, AirPrint works directly with selected HP printers — but only those printers.
- With third-party solutions such as Printopia, can access any printer via Mac printer sharing.

AIRPLAY LIMITATIONS

- AirPlay-iOS 4.2.1: Stream video content from iPad to TV via Apple TV
- Works only with compatible video formats
- Doesn't work with thirdparty apps...yet
- Can't be used to live stream games...yet
- Potential HDCP bug



ACCESS YOUR MAC ON IOS DEVICES

- Many options available. Two favorites:
 - LogMeIn Ignition
 - ZumoCast

BACKUP IOS FILES

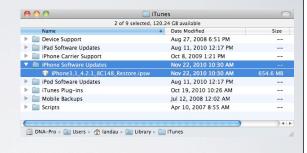
- Backups created when you sync in iTunes
- iOS Device Backups can be used to Restore
- Backup files located at:
 ~/Library/Application
 Support/MobileSync/Backup

UTILITIES THAT ACCESS BACKUP FILES

- File Juicer
- MobileSyncBrowser
- Backup Extractor

IOS UPDATE FILES

- iPhone files stored in:
 ~/Library/iTunes/iPhone
 Software Updates
- Older updates moved to Trash. Save them!
- Want to downgrade or restore without updating?



OPTION-RESTORE OPTION-UPDATE

• In theory, select .ipsw file via Option-Update

• In reality, Apple blocks this in recent hardware





iOS APP FILES

- App Store apps located in: ~/Music/iTunes/iTunes
 Media/Mobile Applications
- Can save older versions of apps for downgrade
- View content of app files
 - demo

APP FILES: MODIFY CONTENT

- Work with apps that directly access content on iOS device:
 - iPhone Explorer
 - PhoneView
- Modify content of .ipa files:
 - Angry Birds scores
 - Recorder tapes

iPHONE CONFIGURATION UTILITY

- Use via USB to iOS device
- Advanced:
 Provisioning and
 Configuration files
- Uninstall apps
- View Console logs

XCODE'S ORGANIZER

- Xcode available as part of Developer software
- View Console crash logs
- Take screenshots

JAILBREAKING: WHY BOTHER?

- Get apps not available in App Store
 - ScreenSplitr & iDemo
 - MyFi
 - Netatalk and OpenSSH

JAILBREAKING: WHY BOTHER?

- To access full OS for troubleshooting
 - DiskAid, PhoneDisk, PhoneView on Mac
 - iFile, Terminal apps on iOS device

JAILBREAKING: WHY NOT BOTHER?

- Apple is winning the Cat & Mouse game
 - Fixed-BootROM starting in later 3GS models
 - iTunes signature-checks prevent downgrading etc.
 - iOS 4.2.1:Tethered jailbreaks may be required
 - iOS 4.2.1: Baseband updates may be undoable
- Complicated procedures, with risks
- Voids warranty; but...it is legal!

HOWTO JAILBREAK (BRIEFLY)

- Follow tutorials!
 - http://www.iclarified.com/
 - Will need a utility such as Pwnage or redsn0w
 - Will need a iOS firmware file
- iOS updates wipe out jailbreak
- Storing SHSH blobs
 - TinyUmbrella
 - Cydia
- Installing apps: Cydia

WHERE I LIVE...

- User Friendly View at The Mac Observer:
 - http://www.macobserver.com/tmo/features/ user_friendly_view/
- Bugs & Fixes at macworld.com's Mac 911:
 - http://www.macworld.com/weblogs/mac9 | I.html
- Slanted Viewpoint blog:
 - http://www.tedlandau.com/slantedviewpoint/
- Twitter: @tedlandau