## **McAfee**°



Protect what you value.

## iPhone v3 Malware Vector

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McAfee Avert

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## iPhone Apps



### **ZiPhone**





```
Chacking disks...
Mounting disks...
Copying webclip...
Starting jailbreak...
Unmounting filesystems...
Now rebooting...
Jul 28 09:17:38 reboot: rebooted by root
Jul 28 09:17:38 reboot: SHUTDOWN_TIME: 1
```

```
Singleuser boot -- fsck not done
Root device is mounted read-only

If you want to make modifications to files:

/sbin/fsck -fy
/sbin/mount -uw /

If you wish to boot the system:
exit
```



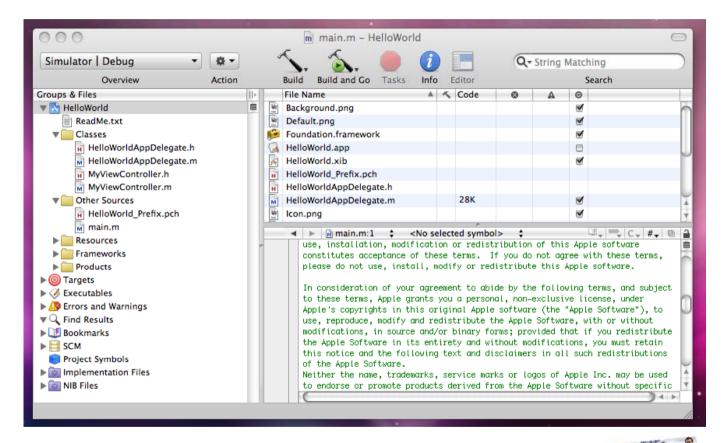
## iTunes App Store



## Sync Apps - iTunes



#### iPhone SDK - Hello World





09/21/2009

Protect what you value.

## iPhone Simulator

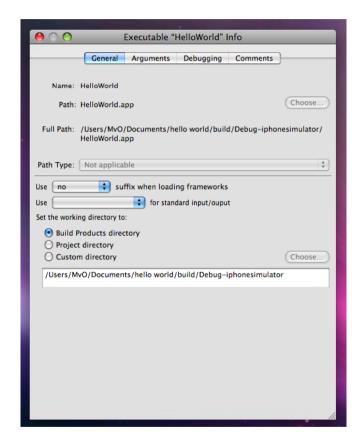




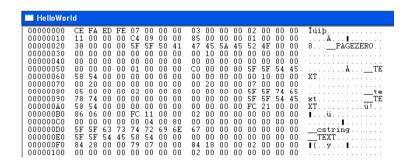


### **Output Binary**

09/21/2009



..\demo code\001\helloworld\build\Debugiphonesimulator\HelloWorld.app\ HelloWorld (24.208 bytes)





## Mach Header

HelloWor	ld																
00000000 00000010 00000020 00000030 00000040 00000050 00000060 00000070	CE 11 38 00 00 00 58 00	FA 00 00 00 00 00 54 20	ED 00 00 00 00 00 00	FE 00 00 00 00 00 00	07 C4 5F 00 00 01 00 00	00 09 5F 00 00 00 00	00 00 50 00 00 00 00	00 00 41 00 00 00 00	03 85 47 00 00 C0 00	00 00 45 10 00 00 20	00 00 5A 00 00 00 00	00 00 45 00 00 00 00	02 01 52 00 00 5F 00 07 5F	00 00 4F 00 00 5F 10 00 5F	00 00 00 00 00 54 00 00 74	00 00 00 00 00 45 00 00 65	Îúib
00000090 000000A0 000000C0 000000D0 000000E0 000000F0 000000100	78 58 00 5F 5F 84 00	74 54 06 5F 5F 28 00	00 00 00 00 63 54 00	00 00 00 73 45 00	00 FC 00 74 58 79	00 00 11 04 72 54 07	00 00 00 00 69 00 00	00 00 80 6E 00 00	00 02 00 67 00 84 02	00 00 00 00 00 00 18 00	00 00 00 00 00 00	00 00 00 00 00 00	5F FC 00 00 00 00 02 00	5F 21 00 00 00 00 00	54 00 00 00 00 00 00	45 00 00 00 00 00 00	xtTE XT

magic : FEEDFACE - Mach-O file

cputype : 7 Intel

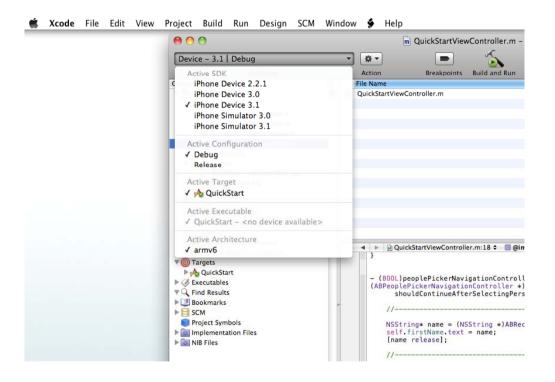
cpusubtype: 3

filetype : 2 EXECUTABLE

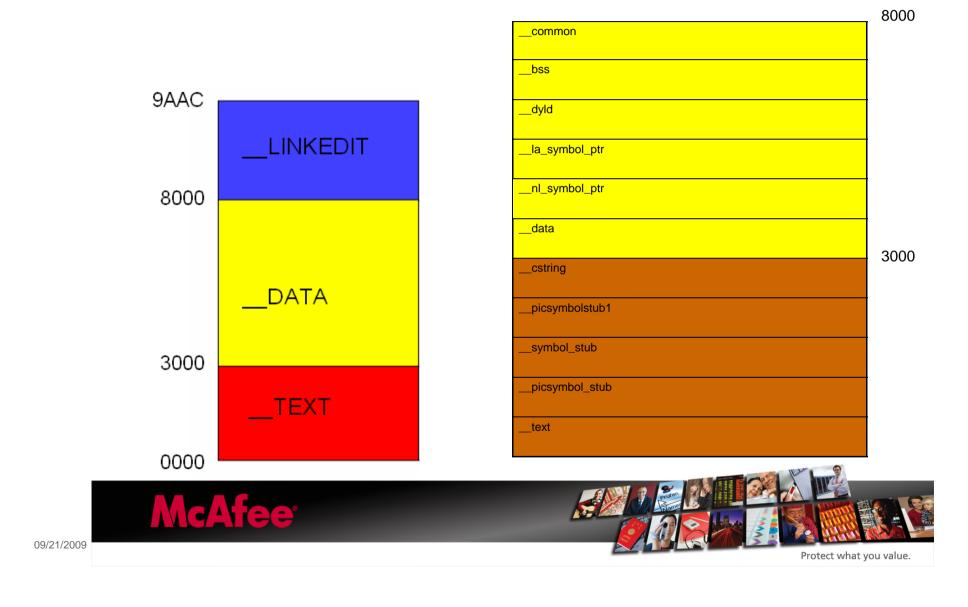
ncmds : 11 sizeofcmds : 9C4 flags : 85



# iPhone Simulator-i386 <--> Device-ARMv6 No Universal Binary Intel-PPC|ARM



### ■Random example code - Section File Areas in the \_\_\_TEXT and \_\_\_DATA segments.



### Possible Virus Techniques for OSX Mach-O Files

- ■No EP in Mach Header
- ■Change the immediate bytes at the start or the end of the executable code itself in the \_\_text section
- Or by putting a call instruction in these to another section where the real virus bytes reside.



## iPhone E-mail



• iPhone OS v3 works with MobileMe, Yahoo! Mail, Gmail, Hotmail, AOL, most IMAP or POP mail systems, MS-Exchange (ActiveSync).



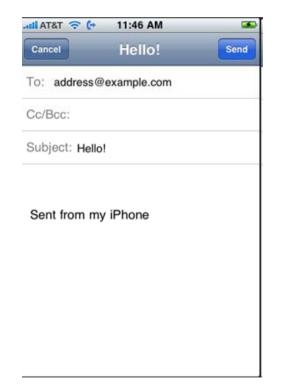


- With the iPhone OS v3.0 it is possible to
- create rich HTML E-mail messages, setting the Subject,
- the TO/CC/BCC recipients and include file attachments.

- Images appear inline with text.
- See email attachments like MS-Office documents or PDFs in their original format.



• MFMailComposeViewController class – "display a standard email view inside your application and populate the fields of that view with initial values, such as the subject, email recipients, body text, and attachments".





#### •setToRecipients:

- •Sets the initial recipients to include in the email's "To" field.
- •- (void)setToRecipients:(NSArray\*)toRecipients
- Parameters
- toRecipients
  - An array of NSString objects, each of which contains the email address of a single recipient.
- Discussion
- •This method replaces the previous recipients with the new ones listed in the toRecipients parameter. This method does not filter out duplicate email addresses, so if duplicates are present, multiple copies of the email message may be sent to the same address.
- •You should call this method before you display the mail composition interface only. Do not call it after presenting the interface to the user.
- Availability
- Available in iPhone OS 3.0 and later.
- •Related Sample Code
- MailComposer
- Declared In
- MFMailComposeViewController.h



#### •setBccRecipients: (similar setCcRecipients: )

- •Sets the initial recipients to include in the email's "Bcc" field.
- •- (void)setBccRecipients:(NSArray\*)bccRecipients
- Parameters
- bccRecipients
  - An array of NSString objects, each of which contains the email address of a single recipient.
- Discussion
- •This method replaces the previous blind carbon-copy recipients with the new ones listed in the bccRecipients parameter. This method does not filter out duplicate email addresses, so if duplicates are present, multiple copies of the email message may be sent to the same address.
- •You should call this method before you display the mail composition interface only. Do not call it after presenting the interface to the user.
- Availability
- Available in iPhone OS 3.0 and later.
- •Related Sample Code
- MailComposer
- Declared In
- MFMailComposeViewController.h



#### •setSubject:

- •Sets the initial text for the subject line of the email.
- •- (void)setSubject:(NSString\*)subject
- Parameters
- subject
  - —The text to display in the subject line.
- Discussion
- •This method replaces the previous subject text with the new text. You should call this method before you display the mail composition interface only. Do not call it after presenting the interface to the user.
- Availability
- •Available in iPhone OS 3.0 and later.
- •Related Sample Code
- MailComposer
- Declared In
- •MFMailComposeViewController.h



#### setMessageBody:isHTML:

- Sets the initial body text to include in the email.
- - (void)setMessageBody:(NSString\*)body isHTML:(BOOL)isHTML
- Parameters
- body
  - The initial body text of the message. The text is interpreted as either plain text or HTML depending on the value of the isHTML parameter.
- isHTML
  - Specify YES if the body parameter contains HTML content or specify NO if it contains plain text.
- Discussion
- This method replaces the previous body content with the new content. If the user has a signature file, the body content is inserted immediately before the signature. If you want to include images with your content, you must attach the images separately using the addAttachmentData:mimeType:fileName: method.
- You should call this method before you display the mail composition interface only. Do not call it after presenting the interface to the user.
- Availability
- Available in iPhone OS 3.0 and later.
- Related Sample Code
- MailComposer
- Declared In
- MFMailComposeViewController.h

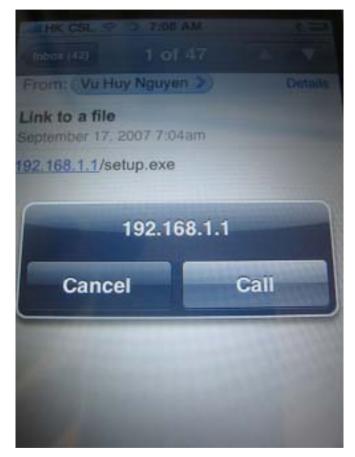


#### addAttachmentData:mimeType:fileName:

- Adds the specified data as an attachment to the message.
- - (void)addAttachmentData:(NSData\*)attachment mimeType:(NSString\*)mimeType fileName:(NSString\*)filename
- Parameters
- attachment
  - The data to attach. Typically, this is the contents of a file that you want to include. This parameter must not be nil.
- mimeType
  - The MIME type of the specified data. (For example, the MIME type for a JPEG image is image/jpeg.) For a list of valid MIME types, see <a href="http://www.iana.org/assignments/media-types/">http://www.iana.org/assignments/media-types/</a>. This parameter must not be nil.
- filename
  - The preferred filename to associate with the data. This is the default name applied to the file when it is transferred to its destination. Any path separator (/) characters in the filename are converted to underscore (\_) characters prior to transmission. This parameter must not be nil.
- Discussion
- This method attaches the specified data after the message body but before the user's signature. You may attach multiple files (using different file names) but must do so prior to displaying the mail composition interface. Do not call this method after presenting the interface to the user.
- Availability
- Available in iPhone OS 3.0 and later.



## IP address seen as Telephone number ©





## iPhone Messages



## •iPhone v3 supports MMS





## SMS message with Weblink not automatically opened







## $\192.168.1.55\1.jpg \rightarrow \ \ and the 1.jpg ignored$





### SMS message with YouTube link not automatically opened





## iPhone Copy



•"Cut, copy, and paste words and photos, even between applications. Copy and paste images and content from the web, too. then paste it into an email or MMS."







## iPhone Network



•With iPhone v3 it is possible to query the network configuration and/or if a certain target host would be reachable.



### CFNetwork Programming Guide

- •CFNetwork is a framework in the Core Services framework that provides a library of abstractions for network protocols. These abstractions make it easy to perform a variety of network tasks, such as:
- Working with BSD sockets
- Creating encrypted connections using SSL or TLS
- Resolving DNS hosts
- •Working with HTTP, authenticating HTTP and HTTPS servers
- Working with FTP servers
- Publishing, resolving and browsing Bonjour services



- CFNetwork Framework Reference
- •This collection of documents provides the API reference for the CFNetwork framework.
- •CFFTPStream
- CFHost
- CFHTTPAuthentication
- CFHTTPMessage
- CFNetServices
- CFStream Socket Additions



- •The CFHost API allows you to create instances of the CFHost object that you can use to acquire host information, including names, addresses, and reachability information.
- CFHostGetNames
- Gets the names from a CFHost.
- <u>CFArrayRef</u> CFHostGetNames ( <u>CFHostRef</u> theHost, Boolean \*hasBeenResolved ); Parameters
- theHost
  - The host to examine. The host must have been previously resolved. (To resolve a host, call <a href="CFHostStartInfoResolution">CFHostStartInfoResolution</a>.) This value must not be NULL.
- hasBeenResolved
  - On return, contains TRUE if names were available, otherwise FALSE. This value may be NULL.
- Return Value
- •An array containing the of names of the Host, or NULL if no names were available.
- Special Considerations
- •This function gets the names in a thread-safe way, but the resulting data is not thread-safe. The data is returned as a "get" as opposed to a copy, so the data is not safe if the CFHost is altered from another thread.



#### CFHostGetReachability

- Gets reachability information from a host.
- <u>CFDataRef</u> CFHostGetReachability (<u>CFHostRef</u> theHost, Boolean \*hasBeenResolved); Parameters
- •theHost
  - The host whose reachability is to be obtained. The host must have been previously resolved. (To resolve a host, call CFHostStartInfoResolution.) This value must not be NULL.
- hasBeenResolved
  - On return, contains TRUE if the reachability was available, otherwise FALSE. This value may be NULL.
- Return Value
- •A CFData object that wraps the reachability flags (SCNetworkConnectionFlags) defined in SystemConfiguration/SCNetwork.h, or NULL if reachability information was not available.
- Special Considerations
- •This function gets reachability information in a thread-safe way, but the resulting data is not thread-safe. The data is returned as a "get" as opposed to a copy, so the data is not safe if the CFHost is altered from another thread.



#### CFHostInfoType Constants

- •Values indicating the type of data that is to be resolved or the type of data that was resolved.
- •enum <u>CFHostInfoType</u> { <u>kCFHostAddresses</u> = 0, <u>kCFHostNames</u> = 1, <u>kCFHostReachability</u> = 2 }; typedef enum <u>CFHostInfoType</u> CFHostInfoType; Constants
- •kCFHostAddresses
  - —Specifies that addresses are to be resolved or that addresses were resolved.
  - —Declared in CFHost.h.

#### kCFHostNames

- —Specifies that names are to be resolved or that names were resolved.
- —Declared in CFHost.h.

#### kCFHostReachability

- —Specifies that reachability information is to be resolved or that reachability information was resolved.
- —Declared in CFHost.h.



# iPhone Browser

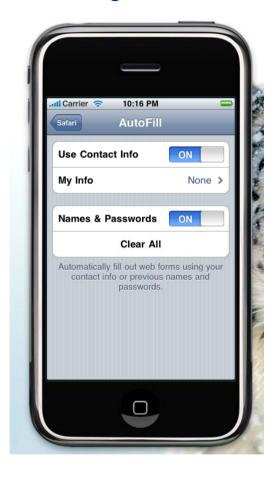


### •JavaScript/Plug-Ins





### Safari AutoFill settings







### Fraud Warning





# iPhone AddressBook



#### AddressBook

- •The Addressbook not only keeps records of a contact's
- name and address information, its framework
- can be called by SMS and E-Mail and also by custom third party applications.

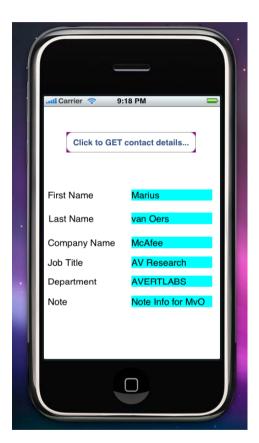


#### AddressBook - Personal Information Properties

- const ABPropertyID kABPersonFirstNameProperty;
- const ABPropertyID kABPersonLastNameProperty;
- const ABPropertyID kABPersonMiddleNameProperty;
- const ABPropertyID kABPersonPrefixProperty;
- const ABPropertyID kABPersonSuffixProperty;
- const ABPropertyID kABPersonNicknameProperty;
- const ABPropertyID kABPersonFirstNamePhoneticProperty;
- const ABPropertyID kABPersonLastNamePhoneticProperty;
- const ABPropertyID kABPersonMiddleNamePhoneticProperty;
- const ABPropertyID kABPersonOrganizationProperty;
- const ABPropertyID kABPersonJobTitleProperty;
- const ABPropertyID kABPersonDepartmentProperty;
- const ABPropertyID kABPersonEmailProperty;
- const ABPropertyID kABPersonBirthdayProperty;
- const ABPropertyID kABPersonNoteProperty;
- const ABPropertyID kABPersonCreationDateProperty;
- const ABPropertyID kABPersonModificationDateProperty;

### AddressBook - Getting Personal Information

```
//-----
NSString* name = (NSString *)ABRecordCopyValue(person, kABPersonFirstNameProperty);
self.firstName.text = name:
[name release]:
name = (NSString *)ABRecordCopyValue(person, kABPersonLastNameProperty);
self.lastName.text = name;
[name release];
//-----
NSString* comp = (NSString *)ABRecordCopyValue(person, kABPersonOrganizationProperty);
self.companyname.text = comp;
[comp release];
NSString* job = (NSString *)ABRecordCopyValue(person, kABPersonJobTitleProperty);
self.jobtitle.text = job;
[job release];
NSString* dep = (NSString *)ABRecordCopyValue(person, kABPersonDepartmentProperty);
self.department.text = dep;
[dep release];
```





Protect what you value.

#### AddressBook - Phone Number Property

- const ABPropertyID kABPersonPhoneProperty;
- const CFStringRef kABPersonPhoneMobileLabel;
- const CFStringRef kABPersonPhoneMainLabel;
- const CFStringRef kABPersonPhoneHomeFAXLabel;
- const CFStringRef kABPersonPhoneWorkFAXLabel;
- const CFStringRef kABPersonPhonePagerLabel;

- ABMultiValueAddValueAndLabel(multi, @"123-456-1000",
- kABPersonPhoneMobileLabel)
- •ABMultiValueAddValueAndLabel(multi, @"123-456-1001",
- kABPersonPhoneMainLabel)



### AddressBook - Instant Message Property

- const ABPropertyID kABPersonInstantMessageProperty;
- const CFStringRef kABPersonInstantMessageServiceKey;
- const CFStringRef kABPersonInstantMessageServiceYahoo;
- const CFStringRef kABPersonInstantMessageServiceJabber;
- const CFStringRef kABPersonInstantMessageServiceMSN;
- const CFStringRef kABPersonInstantMessageServiceICQ;
- const CFStringRef kABPersonInstantMessageServiceAIM;
- const CFStringRef kABPersonInstantMessageUsernameKey;



### AddressBook - URL Property

- •const ABPropertyID kABPersonURLProperty;
- const CFStringRef kABPersonHomePageLabel;



# iPhone Malware



### iPod trojan

- •In September 2006 Apple shipped some iPod devices that actually had a malicious 32 bit PE binary file, raymone.exe
- •Trojan might allow remote control and might call various weblinks.
- Not Native for Apple





#### iPod virus

- •In April 2007 Podloso was discovered, being the first binary infector for iPod.
- •Needs iPodLinux, install not trivial

- •Buggy virus ⊗ ⊚
- •Podloso virus prepends 0x17EF bytes to ELF files





```
000007D0
                                                                ■ELF....Oslo....
                       00 00 00 00
                                     4F 73 6C 6F 00 00 00 00
000007E0
                          62
                                     2E 00
                                                  2E
                              00 00
                                           00
                                               00
                                                     2E
                                                        00 00
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                    72
                       2F
                          6C 69 62
                                     2F
                                        00 00
                                                        64 2E
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                                                     6F
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             0.0
                                     2F 6C
                                           69
                                              62
0080000
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                                                     6F
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                                                           6C
                                                                o.../usr/lib/osl
          6F 2F
                6F
                       6C
                          6F
                             2E 6D
                                     6F 64 2E 6F 00
                                                     0.0
                                                        00 00
                                                                o/oslo.mod.o...
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                             70 6E
                                     67 00 00
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                 65
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                    6F
                       73
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# QuickTime



- •QuickTime player supports many audio/video formats:
- QuickTime MOV files
- AVI
- JPEG
- MPEG1, MPEG2, MPEG4
- many more...

•It is possible to add metadata to iTunes files and to QuickTime movies.



Exploit-QtRTSP, bad interpretation of rtsp web links which may result in buffer overflows.

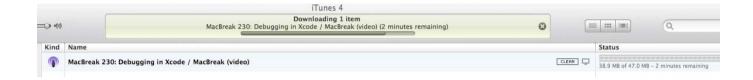
```
exploit.qt.vir
00000000
          3C 3F 78 6D 6C
                                                               <?xml version="1</pre>
                22 3F 3E 3C 3F 71
79 70 65 3D 22 61
                                    75
                                          63
                                       69
                                              6B 74
                                                    69
                                                       6D
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00000010
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          20 74
                                    70 70 6C 69 63 61 74 69
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          6F 6E 2F 78 2D 71 75 69 65 64 69 61 2D 6C 69 6E
                                    63 6B 74 69 6D 65 2D 6D
6B 22 3F 3E 3C 65 6D 62
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                    58
                          42
                             44 42
                                    48
                                       34
                                           41
                                              32
                                                    44 30
000001A0
                                                 41
                                                               BCVX2BDBH4A2AD0A
                      51
                          42
000001B0
          44 54 42
                    44
                             30
                                41
                                    44
                                       41
                                           56
                                              58 34
                                                    5A 38
                                                               DTBDOB0ADAVX4Z8B
                          4F 4C 36
                                    4B 4E 4D 34 4A 4E 49
000001C0
                4F 4D 4E
                                                               DJOMNOL6KNM4JNIO
          4F 4F 4F 4F 4F 42 46
                                    4B 58 4E 56 46 42 46 42
000001D0
                                                              OOOOOOBFKXNVFBFB
000001E0
          4B 58 45 54 4E 53 4B 48
                                    4E 57 45 30 4A 47 41 30
                                                               KXETNSKHNWEOJGAO
          4F 4E 4B 48 4F 44 4A 51
000001F0
                                    4B 38 4F 55 42 32 41 50
                                                              ONKHODJOK8OUB2AP
```



# **Podcasts**



### MacBreak - clean :-)





- •Shown WebLink (URL Title) might be completely different then actual WebLink (URL)
- Adware/Spyware/Phish



#### Smart parsing of .mov files might be needed

```
gar001.mov
000213D0 FA D3 F9 25 BF BD BC 98
                                                                                    úÓù%¿¼¼∥lÁÇ∥:í$Å
                                                 6C C1 C7 9B 3A ED 24 C5
              99 F0 06 25 02 06 80 38
8B E5 2D 70 27 09 41 79
                                                 B0 29 57 44 6A 80 9A FF
51 84 D7 8E B1 0C 94 23
                                                                                    ||ĕ.%..||8°)ŴDi|||₩
                                                                                    lå-p'.AyQl×l±.l#
              6D D2 25 A2 12 C2 19 C0
                                                             00 29 40 00 88
                                                                                    mÒ%¢.Å.Å..@.)@.
                                                 13 04 40
              28 70 00 12 55 52 4C 20 73 74 61 72 74 73 00 14
                                                             70 74 65 72 20
                                                 43 68
                                                         61
                                                                                    (p. .URL Chapter
                                                 43
                                                     4C
                                                         49
                                                             43
                                                                 4B 20 46 4F
                                                                                    starts..CLICK FO
              52 20 4D 43 41 46 45 45
                                                 20 55 52 4C 00 00 00 23
                                                                                    R MCAFEE URL...#
             68 72 65 66 00 00 00 14
77 77 77 2E 6D 63 61 66
0A 15 84 31 12 71 01 07
                                                 15 68 74 74 70 3A 2F 2F
00021440
                                                                                    href....http://
                                                 65 65 2E 63 6F 6D 00 21
                                                                                    www.mcafee.com.!
00021460
                                                 91 81 DO 01 60 A4 59 03
                                                                                    ..∎1.q..′∎Ð.`¤Y.
00021470 B0 DF DE 71 EF 01 F4 89 B2 D1 89 02 95 24 A8 14 00021480 30 0C D7 C4 69 81 7D CD D4 27 1F EF 6C B7 F1 26 00021490 4D EE 79 6A C2 69 9A 0A 69 A4 EA B9 12 CD 06 A7
                                                                                    *BÞqï.ô|*Ñ|.|$".
0.×Äi|}ÍÖ'.ïl;ñ&
                                                                                   MîyjÅi∎.i¤ê¹.Í.S
```



### Podcast with weblink on iPhone







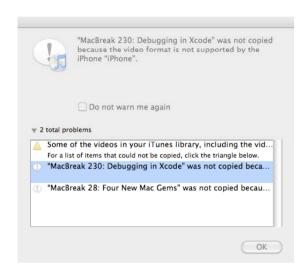
# MCAFCC Protect what you value.

### Touchscreen controls interferes ⊗





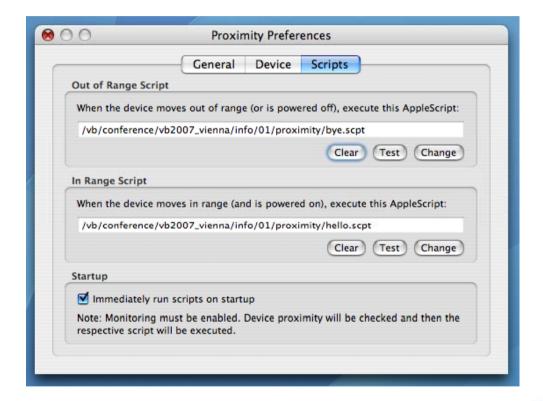
## Sync .MOV files to iPhone problematic



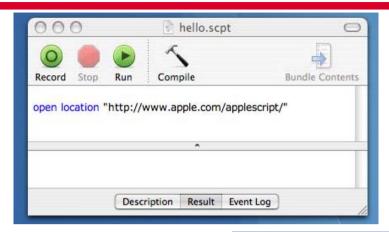
# **Proximity**



# The Proximity tool can execute AppleScripts upon Bluetooth device appearance/disappearance



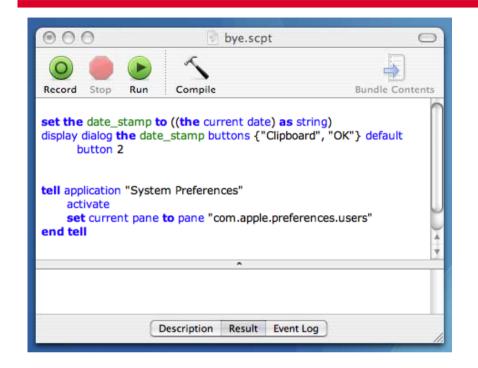


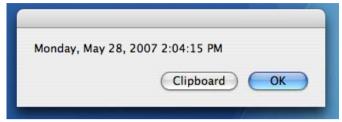




**McAfee**°

Protect what you value.







## **McAfee**°

Protect what you value.

#### AppleScripts not ASCI text

```
hello.scpt
                                                                    FasdUAS 1.101.10
00000000
           46 61 73 64 55 41 53 20
                                       31 2E 31 30 31 2E 31 30
           OE 00 00 00 04 OF FF FF
                                       00 01 00 02 00 03 01 FF
                                                                    \begin{matrix} \dots \dots \ddot{y}\ddot{y} \dots \ddot{y} \\ \ddot{y} \dots \dots \dot{k} \dots \end{matrix}
00000010
           FF 00 00 0D 00 01 00 01
                                       6B 00 00 00 00 00 00 00
00000020
           04 02 00 04 00 02 00 05
                                       00 06 0D 00 05 00 02 6C
00000030
                                                                    00000040
           00 02 00 00 00 00 FF FE
                                       FF FD 01 FF FE 00 00 01
                                                                    ....ÿþÿý.ÿþ...
           FF FD 00 00 02 00 06 00
                                       02 00 07
                                                 00 08 0D 00 07
00000050
                                                                    ..1.....<del>ÿ</del>ü...
00000060
           00 02 6C 00 02 00 00 00
                                       05 00 09 FF FC 0D 00 09
           00 03 49 00 02 00 00 00
                                       05 FF FB 00 OA FF FA OA
00000070
           FF FB 00 18 2E 47 55 52
6C 00 00 00 00 FF FF 80
                                       4C 47 55 52 4C 6E 75 6C 00 54 45 58 54 0D 00 0A
                                                                    ÿû...GURLGURLnul
08000000
00000090
                                                                    Î....ÿÿ∎.TEXT...
000000A0
           00 01 6D 00 00 00 00 00
                                       01 00 0B
                                                 0C
                                                     00 OB 00 27
                                                                    . . M . . . . . . . . . . . . .
                                       2F 77 77 77 2E 61 70 70 70 70 70 6C 65 73 63 72 69
           00 21 68 74 74 70 3A 2F
000000B0
                                                                    .!http://www.app
           6C 65 2E 63 6F 6D 2F 61
000000C0
                                                                    le.com/applescri
           70 74 2F 00 02 00 00 02
                                       FF FA 00 00 01 FF FC 00
                                                                    pt/....ÿú...ÿü.
000000D0
           00 02 00 08 00 02 00 00
                                       FF F9 0D 00 0C 00 02 6C
000000E0
                                                                    .......ÿù.....1
           00 02 00 00 00 00 FF F8
                                       FF F7 01 FF F8 00 00 01
                                                                    ....ÿøÿ÷.ÿø...
000000F0
           FF F7 00 00 02 FF F9 00
                                       00 OE 00 02 00 00 OF 10
                                                                    ÿ÷...ÿù.......
00000100
                                       00 0E 01 FF F6 00 00 10
           00 03 00 03 FF F6 00 0D
                                                                    . . . . ÿö . . . . . ÿö . . .
00000110
00000120
           00 0D 00 01 FF F5 0A FF
                                       F5 00 18 2E 61 65 76 74
                                                                    ....ÿõ.ÿõ...aevt
           6F 61 70 70 6E 75 6C 6C
                                       00 00 80 00 00 00 90 00
                                                                    oappnull. |...|.
00000130
           2A 2A 2A 2A 0E 00 0E 00
FF F2 00 10 00 11 FF F1
                                       07 10 FF F4 00 0F FF F3
0A FF F4 00 18 2E 61 65
                                                                    ****....ÿô..ÿó
00000140
00000150
                                                                    ÿò...ÿñ.ÿô...ae
00000160
           76 74 6F 61 70 70 6E 75
                                       6C 6C 00 00 80 00 00 00
                                                                    vtoappnull.. ▮...
           90 00 2A 2A 2A 2A 0D 00
00000170
                                       OF 00 01 6B 00 00 00 00
                                                                    | .**** . . . . . k . . . .
                                       02 00 07 FF F0 02 FF F0
                                                                    .....ÿð.ÿð
           00 05 00 12 02 00 12 00
00000180
00000190
           00 00 01 FF F3 00 00 02
                                       FF F2 00 00 10 00 10 00
                                                                    ...ÿó...ÿò.....
           00 10 00 11 00 02 00 0B
                                       FF EF 0A FF EF 00 18 2E
000001A0
                                                                    ....ÿï.ÿï...
           47 55 52 4C 47 55 52 4C
                                       6E 75 6C 6C 00 00 00 00
                                                                    GURLGURLnull...
000001B0
           FF FF 80 00 54 45 58 54
                                       11 FF F1 00 06 E0 6A 0C
                                                                    ÿÿ∎.TEXT.ÿñ..ài.
000001C0
000001D0
           00 01 0F 00 61 73 63 72 00 01 00 0D FA DE DE AD
                                                                    .....áscr....úÞÞ-
```



# iPhone Exploits

•The software on the iPhone may not be always the latest version nor identical to the software found on regular OSX desktop computers.



Thanks for attention!

# Questions?

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