



# Understanding Crash Reports on iPhone OS

**Madhuwanti Vaidya, Bill Dirks**  
iPhone Data Analysis

# Introduction

- iPhone Data Analysis team
  - collect/process/analyze customer crash reports

# Nobody Likes an App That Crashes

## Crash City

★ ★ ☆ ☆ ☆

by User1 - Version 1.0 - Apr 12, 2010

Really cool promising app, would easily be a 4-5 star. Very unstable!  
Crashed on me 6 times in about 10-15 mins.

## Unstable on iPhone

★ ☆ ☆ ☆ ☆

by User2 - Version 2.3.2 - Dec 6, 2009

Frequently crashes. The only app I run on iPhone that is so unstable.

## Keep your buggy garbage

★ ☆ ☆ ☆ ☆

by User3 - Version 1.0 - Apr 16, 2010

Here's the only thing that doesn't appear to crash this game: all the ads.  
The game itself however crashes all the time. So even for free, this game isn't worth it.

## Crashes

★ ☆ ☆ ☆ ☆

by User4 - Version 1.0 - Apr 17, 2010

Does not work it crashes every time I try to play a song I'll put five stars if fixed.

## Freezes/hang ups

★ ☆ ☆ ☆ ☆

by User5 - Version 2.3.2 - Dec 2, 2009

This app still freezes the iPhone during normal use. Need more work.

## Crashes

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by User6 - Version 1 - May 8, 2010

I was enjoying this app immensely until I downloaded the 30 free song pack. Now I can't play any song because it keeps crashing! Fix this and I move my rating back to 5 stars.

## Will...Not...Launch!

★ ☆ ☆ ☆ ☆

by User7 - Version 1 - Aug 24, 2009

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# Nobody Likes an App That Crashes

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# Nobody Likes an App That Crashes...



# Nobody Likes an App That Crashes...



# Outline

- What are crash reports?
- Types of crash reports
- Acquire crash reports
- Symbolicate crash reports
- Common crashes

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# Crash Reports

Application crashes  OS writes out a Crash Report

- Diagnostic information
- Helps debug application

# Crash Report

Incident Identifier: E6103EB1-FCF8-4887-AABE-7D2CE54DC204  
CrashReporter Key: 7a62337857aa7d30d6bac1f9605c803f8a80d7d5  
Hardware Model: iPod3,1  
Process: SeismicXML [869]  
Path: /var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML  
Identifier: SeismicXML  
Version: ??? (???)  
Code Type: ARM (Native)  
Parent Process: launchd [1]

Date/Time: 2010-05-21 16:35:34.652 -0700  
OS Version: iPhone OS 4.0 (8A274b)  
Report Version: 104

Exception Type: EXC\_BAD\_ACCESS (SIGBUS)  
Exception Codes: KERN\_PROTECTION\_FAILURE at 0x00000000  
Crashed Thread: 6

Thread 0:  
0 libSystem.B.dylib 0x31227688 0x31226000 + 5768  
1 libSystem.B.dylib 0x31229754 0x31226000 + 14164  
2 CoreFoundation 0x325062c8 0x32494000 + 467656  
3 CoreFoundation 0x32508582 0x32494000 + 476546  
4 CoreFoundation 0x324b18e4 0x32494000 + 121060  
5 CoreFoundation 0x324b17ec 0x32494000 + 120812  
6 GraphicsServices 0x304196f0 0x30416000 + 14064  
7 GraphicsServices 0x3041979c 0x30416000 + 14236  
8 UIKit 0x326100e2 0x3260a000 + 24802  
9 UIKit 0x3260ecac 0x3260a000 + 19628  
10 SeismicXML 0x00002138 0x1000 + 4408  
11 SeismicXML 0x000020bc 0x1000 + 4284

Thread 6 Crashed:  
0 libobjc.A.dylib 0x34e8586e 0x34e83000 + 10350  
1 Foundation 0x32144e6e 0x32139000 + 48750  
2 Foundation 0x321c9bb2 0x32139000 + 592818  
3 libSystem.B.dylib 0x312a09b6 0x31226000 + 502198  
4 libSystem.B.dylib 0x31296114 0x31226000 + 459028

Thread 6 crashed with ARM Thread State:  
r0: 0x32145b8d r1: 0x3372602c r2: 0x32145b8d r3: 0x3372602c  
r4: 0x00b580b4 r5: 0x00000000 r6: 0x00006e07 r7: 0x06362da4  
r8: 0x321c97ed r9: 0x001fc098 r10: 0x2fffe9e4 r11: 0x00000000  
ip: 0x3e4049c8 sp: 0x06362d6c lr: 0x00003308 pc: 0x34e8586e  
cpsr: 0x00000030

Binary Images:  
0x1000 - 0x7fff +SeismicXML armv6 <558ca043dbc407b84430fca2daa1a63b>  
/var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML  
0x54c000 - 0x54dfff dns.so armv7 <240b8d3f07b4fcb234de598f8e67de1a> /usr/lib/info/dns.so  
0x2fe00000 - 0x2fe26fff dyld armv7 <a5c24f8740fd36d5d75d09f7e5577f8> /usr/lib/dyld  
0x30005000 - 0x300adfff QuartzCore armv7 <30b70b64405d90493d485668c32572d8>  
/System/Library/Frameworks/QuartzCore.framework/QuartzCore  
0x30188000 - 0x3018ffff libbz2.1.0.dylib armv7 <5d079712f5a39708647292bccbd4c4e0>  
/usr/lib/libbz2.1.0.dylib  
0x3022e000 - 0x3026cfff libvDSP.dylib armv7 <cc8d6be7a5021266e26ebd05e9579852>  
/System/Library/Frameworks/Accelerate.framework/Frameworks/vecLib.framework/libvDSP.dylib



# Crash Report

## Process Information

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CrashReporter Key:   7a62337857aa7d30d6bac1f9605c803f8a80d7d5
Hardware Model:      iPod3,1
Process:             SeismicXML [869]
Path:                /var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML
Identifier:          SeismicXML
Version:             ??? (???)
Code Type:           ARM (Native)
Parent Process:      launchd [1]
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Identifier: SeismicXML  
Version: ??? (???)  
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## Exception

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### Thread 6 Crashed:

0	libobjc.A.dylib	0x34e8586e	0x34e83000	+	10350
1	Foundation	0x32144e6e	0x32139000	+	48750

# Crash Report

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## Thread Backtrace

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4 libSystem.B.dylib 0x31296114 0x31226000 + 459028
```

### Thread 6 crashed with ARM Thread State:

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r4: 0x00b580b4    r5: 0x00000000    r6: 0x00006e07    r7: 0x06362da4
r8: 0x321c97ed    r9: 0x001fc098    r10: 0x2fffe9e4   r11: 0x00000000
ip: 0x3e4049c8    sp: 0x06362d6c    lr: 0x00003308    pc: 0x34e8586e
cpsr: 0x00000030
```

### Binary Images:

```
0x1000 - 0x7fff +SeismicXML armv6 <558ca043dbc407b84430fca2daa1a63b>
/var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML
0x54c000 - 0x54dfff dns.so armv7 <240b8d3f07b4fcb234de598f8e67de1a> /usr/lib/info/dns.so
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Thread State

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r8: 0x321c97ed	r9: 0x001fc098	r10: 0x2fffe9e4	r11: 0x00000000
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## Binary Images

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```

# Outline

- What are crash reports?
- Types of crash reports
- Acquire crash reports
- Symbolicate crash reports
- Common crashes

# Types of Crash Reports

- iPhone OS policy
  - Watchdog timeout
    - Launch/Resume/Suspend/Quit
  - User force-quit
  - Low Memory termination
- Application crashes due to bugs



# Timeout—Launch/Resume/Suspend/Quit

```
Process:      SeismicXML [763]
Path:        /var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML
Identifier:   SeismicXML
Version:     ??? (???)
Code Type:   ARM (Native)
Parent Process: launchd [1]

Date/Time:   2010-05-21 16:05:35.280 -0700
OS Version:  iPhone OS 4.0 (8A274b)
Report Version: 104
```

```
Exception Type: 00000020
Exception Codes: 0x8badf00d
Highlighted Thread: 0
```

## Application Specific Information:

```
com.yourcompany.SeismicXML failed to resume in time
elapsed total CPU time (seconds): 1.030 (user 0.400, system 0.630), 5% CPU
elapsed application CPU time (seconds): 0.000, 0% CPU
```

## Thread 0:

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4  CoreFoundation         0x324b18e4 0x32494000 + 121060
5  CoreFoundation         0x324b17ec 0x32494000 + 120812
6  CFNetwork               0x30569228 0x30501000 + 426536
```

# Demo

## Watchdog Timeout

Bill Dirks

# Timeout

- Exception code: 0x8badf00d
- Don't block main thread
- Use API for asynchronous URL request

Network Apps for iPhone OS, Part 1

Pacific Heights  
Wednesday 2:00PM

Network Apps for iPhone OS, Part 2

Marina  
Wednesday 3:15PM

# User Force-Quit

```
Incident Identifier: 1AA18751-7172-4233-8CF5-17B7C43D0E98
CrashReporter Key:   7a62337857aa7d30d6bac1f9605c803f8a80d7d5
Hardware Model:      iPod3,1
Process:              SeismicXML [887]
Path:                 /var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML
Identifier:           SeismicXML
Version:              ??? (???)
Code Type:           ARM (Native)
Parent Process:      launchd [1]
```

```
Date/Time:           2010-05-25 16:29:20.106 -0700
OS Version:          iPhone OS 4.0 (8A274b)
UDID:                 3776bd76962f1c3101c64122f61825f8b078638b
Report Version:      104
```

```
Exception Type:      00000020
Exception Codes:     0xdeadfa11
Highlighted Thread:  0
```

```
Thread 0:
0  libSystem.B.dylib      0x31227688  0x31226000 + 5768
1  libSystem.B.dylib      0x31229754  0x31226000 + 14164
2  CoreFoundation         0x325062c8  0x32494000 + 467656
3  CoreFoundation         0x32508582  0x32494000 + 476546
4  CoreFoundation         0x324b18e4  0x32494000 + 121060
5  CoreFoundation         0x324b17ec  0x32494000 + 120812
6  GraphicsServices       0x304196f0  0x30416000 + 14064
7  GraphicsServices       0x3041979c  0x30416000 + 14236
8  UIKit                  0x326100e2  0x3260a000 + 24802
9  UIKit                  0x3260ccac  0x3260a000 + 19628
10 SeismicXML            0x00002168  0x1000 + 4456
11 SeismicXML            0x000020ec  0x1000 + 4332
```

# User Force-Quit

```
Path: /var/mobile/ Applications/00128211-000-4010-0007-000000201000/SeismicXML.app/SeismicXML
Identifier: SeismicXML
Version: ??? (???)
Code Type: ARM (Native)
Parent Process: launchd [1]

Date/Time: 2010-05-25 16:29:20.106 -0700
OS Version: iPhone OS 4.0 (8A274b)
UDID: 3776bd76962f1c3101c64122f61825f8b078638b
Report Version: 104
```

```
Exception Type: 00000020
Exception Codes: 0xdeadfa11
Highlighted Thread: 0
```

## Thread 0:

```
0  libSystem.B.dylib      0x31227688 0x31226000 + 5768
1  libSystem.B.dylib      0x31229754 0x31226000 + 14164
2  CoreFoundation         0x325062c8 0x32494000 + 467656
3  CoreFoundation         0x32508582 0x32494000 + 476546
4  CoreFoundation         0x324b18e4 0x32494000 + 121060
5  CoreFoundation         0x324b17ec 0x32494000 + 120812
6  GraphicsServices       0x304196f0 0x30416000 + 14064
7  GraphicsServices       0x3041979c 0x30416000 + 14236
8  UIKit                  0x326100e2 0x3260a000 + 24802
9  UIKit                  0x3260ecac 0x3260a000 + 19628
10 SeismicXML             0x00002168 0x1000 + 4456
11 SeismicXML             0x000020ec 0x1000 + 4332
```

# Low Memory Logs

Incident Identifier: D4E8B5B8-E2EA-4F60-9416-F0BD98DCEFCA  
CrashReporter Key: 15dc3be0eedf85fb074fa175be304082079b99eb  
Hardware Model: iPhone2,1  
OS Version: iPhone OS 4.0 (8A274b)  
Date: 2010-06-01 15:08:15 -0700

Free pages: 581  
Wired pages: 10409  
Purgeable pages: 0  
Largest process: SeismicXMLMem

## Processes

Name	UUID	Count	resident pages
SeismicXMLMem	<82789a92cdd1d50ac2b17aa21f2670e2>	38263	(jettisoned) (active)
installd	<ffda7ad4d075b2fd02216c7e2df9888>	224	
notification_pro	<880cfd236aafbb1cfbd0787040bc7ced>	91	
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74	
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74	
ptpd	<9ff6cd3817f1952339f1db5d946f6038>	307	
MobileSafari	<c2e954c7fb0e6edaa67aa29224344579>	1873	(jettisoned)
Maps	<665a1fc907f8551a9352bc0522ee36ed>	1095	(jettisoned)
BTSERVER	<c358dcf4e8aa131eb66c1996e59809ce>	242	
MobileMusicPlaye	<20df528c77dea995ce5b3ee36e17f59a>	832	(jettisoned)
Preferences	<f53c80952070f73aadd91ad75c6f43e9>	692	(jettisoned)
MobileStorageMou	<23bab46f41cc216fbf66efbaa1786e18>	123	
iapd	<aa978437f697480ffffbb9b123951d96>	266	
MobileMail	<94c71d196ac73109bb0dacc1e7f2ad10>	985	(jettisoned)
MobilePhone	<36f0c3714b59d054ebe7326fe1df731d>	816	(jettisoned)
lsd	<35af413c617c595603182e83b5403a71>	224	
notifd	<3ecc1a4ab4fd07980d0e0deb38fc5ef9>	82	
CommCenter	<ebaaac70a366bfff399c5e0bd740f2d07>	318	
SpringBoard	<66c8d430dd0f0bf611428ad1f584321f>	3890	(active)
configd	<ab999221c9061690fabd93859a2306a7>	358	
fairplayd.N88	<91988ebaec26a3ced3d0baf5a1c2195>	86	
locationd	<1ebbf91f90e577d01977b2931ba40bdd>	706	
mDNSResponder	<55a30544daeee1482a0e69e6acc81a31>	376	
mediaserverd	<49dcb3ca64da08b47f03d91e83e78bc5>	361	
lockdownd	<b146d76811a0f4f61bda6b98056ef5c6>	460	
syslogd	<bdd222762adf9b51a937cb551864efbf>	97	
launchd	<1fa27327ec02eade188a8621ca1fec41>	99	

# Low Memory Logs

```
Incident Identifier: D4E8B5B8-E2EA-4F60-9416-F0BD98DCEFCA
CrashReporter Key:   15dc3be0eedf85fb074fa175be304082079b99eb
Hardware Model:      iPhone2,1
OS Version:          iPhone OS 4.0 (8A274b)
Date:                2010-06-01 15:08:15 -0700
```

```
Free pages:          581
Wired pages:         10409
Purgeable pages:    0
Largest process:    SeismicXMLMem
```

## Processes

Name	UUID	Count	resident pages
SeismicXMLMem	<82789a92cdd1d50ac2b17aa21f2670e2>	38263	(jettisoned) (active)
installd	<ffda7ad4d075b2fdf02216c7e2df9888>	224	
notification_pro	<880cfd236aafbb1cfbd0787040bc7ced>	91	
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74	
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74	
ptpd	<9ff6cd3817f1952339f1db5d946f6038>	307	
MobileSafari	<c2e954c7fb0e6edaa67aa29224344579>	1873	(jettisoned)
Maps	<665a1fc907f8551a9352bc0522ee36ed>	1095	(jettisoned)
BTServer	<c358dcf4e8aa131eb66c1996e59809ce>	242	
MobileMusicPlaye	<20df528c77dea995ce5b3ee36e17f59a>	832	(jettisoned)
Preferences	<f53c80952070f73aadd91ad75c6f43e9>	692	(jettisoned)

# Low Memory Logs

Incident Identifier: D4E8B5B8-E2EA-4F60-9416-F0BD98DCEFCFA  
CrashReporter Key: 15dc3be0eedf85fb074fa175be304082079b99eb  
Hardware Model: iPhone2,1  
OS Version: iPhone OS 4.0 (8A274b)  
Date: 2010-06-01 15:08:15 -0700

Free pages: 581  
Wired pages: 10409  
Purgeable pages: 0  
Largest process: SeismicXMLMem

## Processes

Name	UUID	Count	resident pages
SeismicXMLMem	<82789a92cdd1d50ac2b17aa21f2670e2>	38263	(jettisoned) (active)
installd	<ffda7ad4d075b2fdf02216c7e2df9888>	224	
notification_pro	<880cfd236aafbb1cfbd0787040bc7ced>	91	
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74	
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74	
ptpd	<9ff6cd3817f1952339f1db5d946f6038>	307	
MobileSafari	<c2e954c7fb0e6edaa67aa29224344579>	1873	(jettisoned)
Maps	<665a1fc907f8551a9352bc0522ee36ed>	1095	(jettisoned)
BTServer	<c358dcf4e8aa131eb66c1996e59809ce>	242	
MobileMusicPlaye	<20df528c77dea995ce5b3ee36e17f59a>	832	(jettisoned)
Preferences	<f53c80952070f73aadd91ad75c6f43e9>	692	(jettisoned)
MobileStorageMou	<23bab46f41cc216fbf66efbaa1786e18>	123	
iapd	<aa978437f697480fffbbb9b123951d96>	266	
MobileMail	<94c71d196ac73109bb0dacc1e7f2ad10>	985	(jettisoned)
MobilePhone	<36f0c3714b59d054ebe7326fe1df731d>	816	(jettisoned)



# Low Memory Logs

Date: 2010-06-01 15:08:15 -0700

Free pages: 581  
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Largest process: SeismicXMLMem

## Processes

Name	UUID	Count	resident	pages
SeismicXMLMem	<82789a92cdd1d50ac2b17aa21f2670e2>	38263	(jettisoned)	(active)
installd	<ffda7ad4d075b2fdf02216c7e2df9888>	224		
notification_pro	<880cfd236aafbb1cfbd0787040bc7ced>	91		
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74		
syslog_relay	<ac90e2e7d96c8ef042d1a6ebfdfa830b>	74		
ptpd	<9ff6cd3817f1952339f1db5d946f6038>	307		
MobileSafari	<c2e954c7fb0e6edaa67aa29224344579>	1873	(jettisoned)	
Maps	<665a1fc907f8551a9352bc0522ee36ed>	1095	(jettisoned)	
BTServer	<c358dcf4e8aa131eb66c1996e59809ce>	242		
MobileMusicPlaye	<20df528c77dea995ce5b3ee36e17f59a>	832	(jettisoned)	
Preferences	<f53c80952070f73aadd91ad75c6f43e9>	692	(jettisoned)	
MobileStorageMou	<23bab46f41cc216fbf66efbaa1786e18>	123		
iapd	<aa978437f697480fffbbb9b123951d96>	266		
MobileMail	<94c71d196ac73109bb0dacc1e7f2ad10>	985	(jettisoned)	
MobilePhone	<36f0c3714b59d054ebe7326fe1df731d>	816	(jettisoned)	
lsd	<35af413c617c595603182e83b5403a71>	224		
notifyd	<3ecc1a4ab4fd07980d0e0deb38fc5ef9>	82		
CommCenter	<ebaaac70a366bff399c5e0bd740f2d07>	318		
SpringBoard	<66c8d430dd0f0bf611428ad1f584321f>	3890	(active)	
configd	<ab999221c9061690fabd93859a2306a7>	358		
fairplayd.N88	<91988ebaec26a3ced3d0bafc5a1c2195>	86		
locationd	<1ebbf91f90e577d01977b2931ba40bdd>	706		

# Demo

## Low Memory Logs

Bill Dirks

# Low Memory Logs

- Respect low memory notifications
- Release objects that can be reconstructed
- Release cached objects

Advanced Memory Analysis with Instruments

Presidio  
Thursday 11:30AM

Performance Optimization on iPhone OS

Presidio  
Thursday 2:00PM

# Outline

- What are crash reports?
- Types of crash reports
- Acquire crash reports
- Symbolicate crash reports
- Common crashes

# Acquire Crash Reports

The screenshot shows the Xcode Organizer window with the 'Device Logs' tab selected. The left sidebar shows the project structure under 'IPHONE DEVELOPMENT', including 'Archived Applications', 'Developer Profile', 'Device Logs', 'Provisioning Profiles', 'Screenshots', and 'Software Images'. The main area displays a table of crash reports for the application 'SeismicXML'.

Application	Type	Date/Time
SeismicXML	Crash	5/21/10 4:35 PM
SeismicXML	Crash	5/21/10 4:05 PM
SeismicXML	Crash	5/21/10 3:48 PM
SeismicXML	Crash	5/21/10 3:41 PM
SeismicXML	Crash	5/21/10 3:41 PM

Below the table, the details for the selected crash report are shown:

Incident Identifier: B7C5F43E-D697-4C17-9277-86C785292AFC  
CrashReporter Key: 7a62337857aa7d38d6bac1f9685c8803f8a88d7d5  
Hardware Model: iPod3,1  
Process: SeismicXML [763]  
Path: /var/mobile/Applications/DBF2A211-F638-4D15-8A47-CD95C925FC38/SeismicXML.app/SeismicXML  
Identifier: SeismicXML  
Version: ??? (???)  
Code Type: ARM (Native)  
Parent Process: launchd [1]

# Acquire Crash Reports

- Mac OS X: ~/Library/Logs/CrashReporter/MobileDevice/<DEVICE\_NAME>
- Windows XP: C:\Documents and Settings\<>USERNAME>\Application Data\Apple Computer\Logs\CrashReporter\MobileDevice\<>DEVICE\_NAME>
- Windows Vista + 7: C:\Users\<>USERNAME>\AppData\Roaming\Apple Computer\Logs\CrashReporter\MobileDevice\<>DEVICE\_NAME>

# Acquire Crash Reports

- Live App
  - Customer crash logs: iTunes Connect



# Acquire Crash Reports

## Touch Fighter 1.0 Crash Reports as of June 07, 2010

Your Crash Logs are older than 1 day. [Refresh Now](#)

iPhone OS 3.2    iPhone OS 3.1.3    iPhone OS 3.1.2    iPhone OS 3.1    iPhone OS 3.0

### Crashes and Freezes

These are the most frequent crashes for the current version of your application since it became available in the App Store.

Most Frequent Crashes			
1.	TouchFighter: 0x419d6	31% of submitted crashes	<a href="#">Download Report</a>
2.	TouchFighter: 0x41880	28% of submitted crashes	<a href="#">Download Report</a>
3.	TouchFighter: 0x2bef8	5% of submitted crashes	<a href="#">Download Report</a>
4.	CFNetwork: URLCredentialStorage::_SetCredentialForProtec... + 80	5% of submitted crashes	<a href="#">Download Report</a>
5.	Foundation: __NSFireDelayedPerform + 314	4% of submitted crashes	<a href="#">Download Report</a>
6.	TouchFighter: 0x1e5f2	3% of submitted crashes	<a href="#">Download Report</a>
7.	Foundation: - [NSObject(NSKeyValueObserverRegistration) _removeObserver:forProperty:] + 340	3% of submitted crashes	<a href="#">Download Report</a>
8.	GraphicsServices: GSEventRunModal + 108	2% of submitted crashes	<a href="#">Download Report</a>
9.	MediaPlayer: -[MPVideoViewController _exitPlayerForPlaybackError] + 38	1% of submitted crashes	<a href="#">Download Report</a>
10.	OfficeImport: XIParserVisitor::getHeader + 24	1% of submitted crashes	<a href="#">Download Report</a>



# Acquire Crash Reports

Timeouts		
Timeout on Launch	67% of submitted timeouts	<a href="#">Download Report</a>
Timeout on Quit	33% of submitted timeouts	<a href="#">Download Report</a>
Force Quit by User	0% of submitted timeouts	No Report Available

## Memory

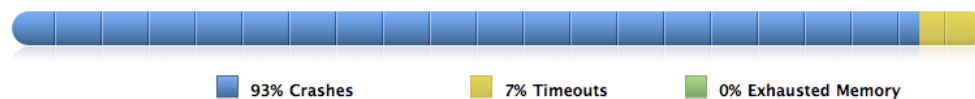
These are the memory issues for all versions of your application in the last seven days.

### Resident Private Memory Size

Average	5.76 MB
Maximum	5.76 MB

## Crashes vs. Memory

This is the ratio of crashes and timeouts to memory issues for all versions of your application in the last seven days.



For more information about crash reports, see [Technical Note TN2151](#).

# Outline

- What are crash reports?
- Types of crash reports
- Acquire crash reports
- Symbolicate crash reports
- Common crashes

# Symbolication

## Unsymbolicated Crash Log

Thread 0:

```
0 libSystem.B.dylib 0x31227688 0x31226000 + 5768
1 libSystem.B.dylib 0x31229754 0x31226000 + 14164
2 CoreFoundation 0x325062c8 0x32494000 + 467656
3 CoreFoundation 0x32508582 0x32494000 + 476546
4 CoreFoundation 0x324b18e4 0x32494000 + 121060
5 CoreFoundation 0x324b17ec 0x32494000 + 120812
6 CFNetwork 0x30569228 0x30501000 + 426536
7 Foundation 0x3217bcec 0x32139000 + 273644
8 SeismicXML 0x000029d4 0x1000 + 6612
```

## Symbolicated Crash Log

Thread 0:

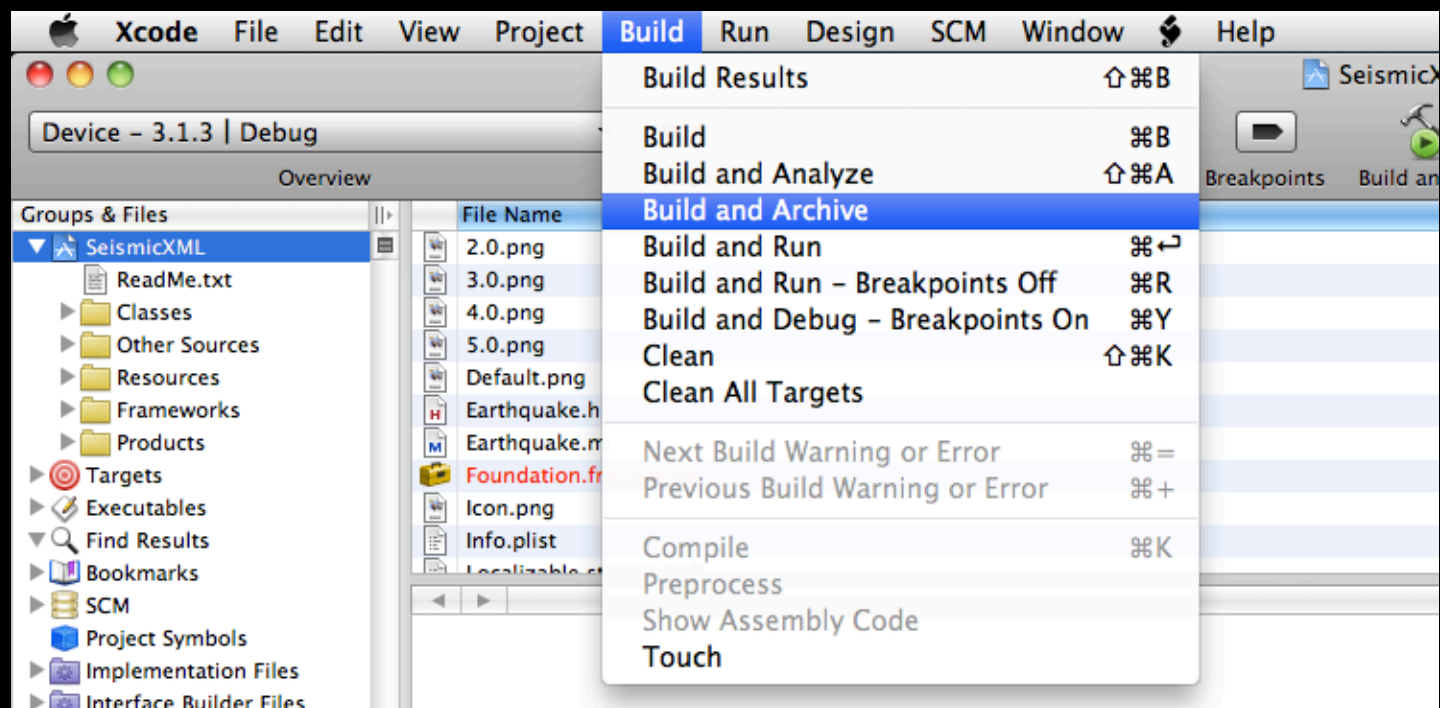
```
0 libSystem.B.dylib 0x00001688 mach_msg_trap + 20
1 libSystem.B.dylib 0x00003754 mach_msg (mach_msg.c:99)
2 CoreFoundation 0x000722c8 __CFRunLoopServiceMachPort (CFRunLoop.c:1837)
3 CoreFoundation 0x00074582 __CFRunLoopRun (CFRunLoop.c:1961)
4 CoreFoundation 0x0001d8e4 CFRunLoopRunSpecific (CFRunLoop.c:2294)
5 CoreFoundation 0x0001d7ec CFRunLoopRunInMode (CFRunLoop.c:2316)
6 CFNetwork 0x00068228 CFURLConnectionSendSynchronousRequest + 244
7 Foundation 0x00042cec +[NSURLConnection sendSynchronousRequest:returningResponse:error:] + 76
8 SeismicXML 0x000029d4 -[SeismicXMLAppDelegate applicationDidFinishLaunching:] (SeismicXMLAppDelegate.m:129)
```

function name

file name: line number

# Symbolicate Crash Reports

- Store binary and .dSYM file
- Xcode 3.2.2 (or later): “Build and Archive”



# Outline

- What are crash reports?
- Types of crash reports
- Acquire crash reports
- Symbolicate crash reports
- Common crashes

# Common Crashes

- Over released objects
- Null pointer dereference
- Insert nil object

# Demo

## Common Crashes

Bill Dirks

# Common Crashes

- Understand Objective-C Retain/Release model
- Apply consistently across all code

Advanced Objective-C and Garbage Collection Techniques

Pacific Heights  
Friday 11:30AM

Working Effectively With Objective-C on iPhone OS

Pacific Heights  
Wednesday 9:00AM



# Summary

- Nobody likes an app that crashes
- Types of crash reports
- Customer crash reports
- Xcode “Build and Archive”
- Avoid common pitfalls

# Related Sessions

Network Apps for iPhone OS, Part 1	Pacific Heights Wednesday 2:00PM
Network Apps for iPhone OS, Part 2	Marina Wednesday 3:15PM
Advanced Memory Analysis with Instruments	Presidio Thursday 11:30AM
Performance Optimization on iPhone OS	Presidio Thursday 2:00PM
App Publishing with iTunes Connect	Mission Thursday 10:15AM
Advanced Objective-C and Garbage Collection Techniques	Pacific Heights Friday 11:30AM
Working Effectively With Objective-C on iPhone OS	Pacific Heights Wednesday 9:00AM

# More Information

## Michael Jurewitz

Developer Tools Evangelist

[jurewitz@apple.com](mailto:jurewitz@apple.com)

## Documentation

Crash Reporting for iPhone OS Applications

<http://developer.apple.com/iphone/library/technotes/tn2008/tn2151.html>

## Apple Developer Forums

<http://devforums.apple.com>

# Q&A



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intentionally  
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all