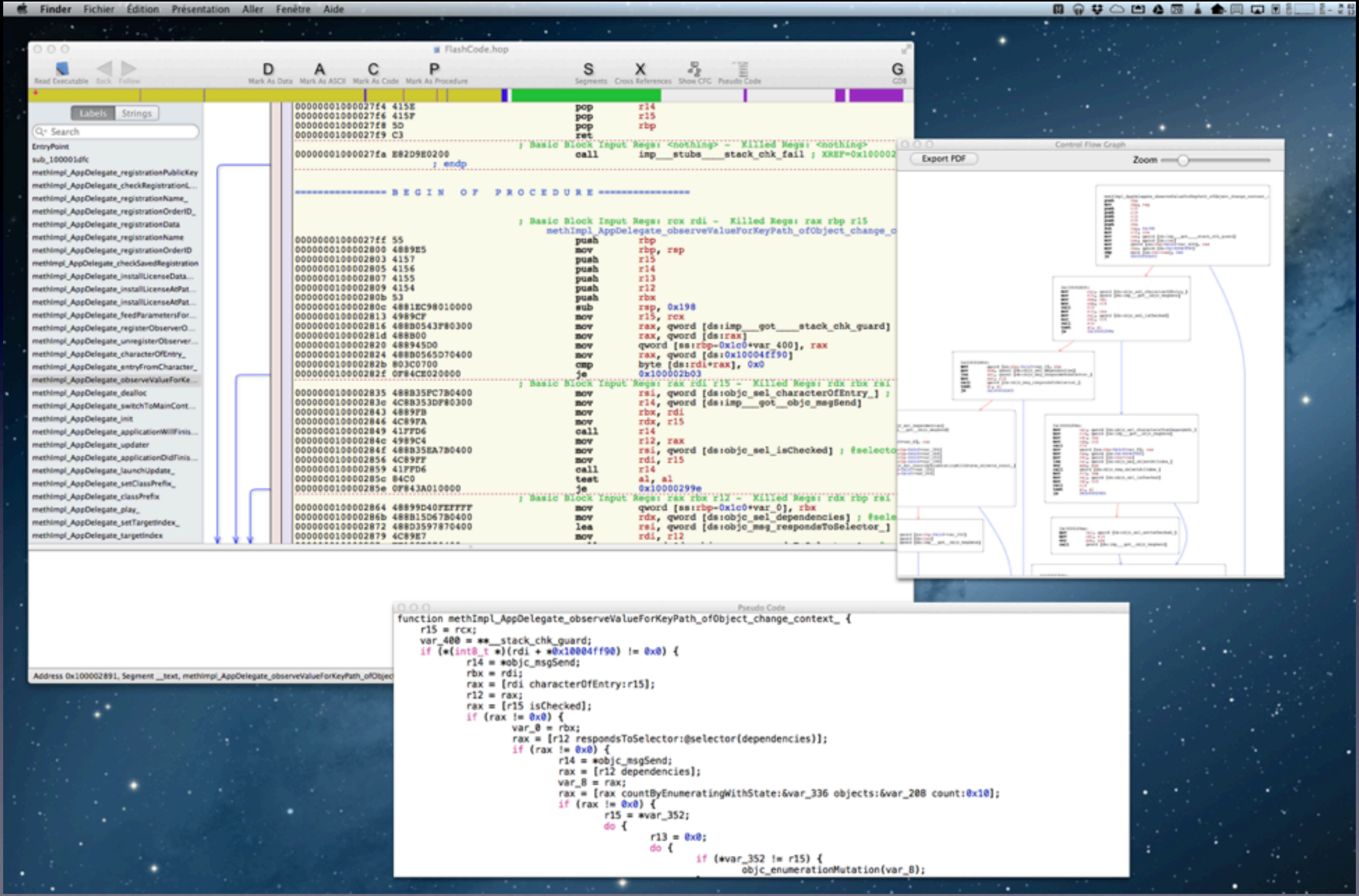
Hopper Disassembler

Cryptic Apps - Vincent Bénony (bsr43@hopperapp.com)

Qu’est-ce que Hopper ?

- un désassembleur interactif
  - Intel x86, et ARM
  - Mach-O, Windows PE, ELF
- un décompilateur
- un debugger

L'interface



EntryPoint
sub_100001dfc
methImpl_AppDelegate_registrationPublicKey
methImpl_AppDelegate_checkRegistrationL...
methImpl_AppDelegate_registrationName_
methImpl_AppDelegate_registrationOrderID_
methImpl_AppDelegate_registrationData
methImpl_AppDelegate_registrationName
methImpl_AppDelegate_registrationOrderID
methImpl_AppDelegate_checkSavedRegistration
methImpl_AppDelegate_installLicenseData...
methImpl_AppDelegate_installLicenseAtPat...
methImpl_AppDelegate_installLicenseAtPat...
methImpl_AppDelegate_feedParametersFor...
methImpl_AppDelegate_registerObserverO...
methImpl_AppDelegate_unregisterObserver...
methImpl_AppDelegate_characterOfEntry_
methImpl_AppDelegate_entryFromCharacter_
methImpl_AppDelegate_observeValueForKe...
methImpl_AppDelegate_dealloc
methImpl_AppDelegate_switchToMainCont...
methImpl_AppDelegate_init
methImpl_AppDelegate_applicationWillFinis...
methImpl_AppDelegate_updater
methImpl_AppDelegate_applicationDidFinis...
methImpl_AppDelegate_launchUpdate_
methImpl_AppDelegate_setClassPrefix_
methImpl_AppDelegate_classPrefix
methImpl_AppDelegate_play_
methImpl_AppDelegate_setTargetIndex_
methImpl_AppDelegate_targetIndex

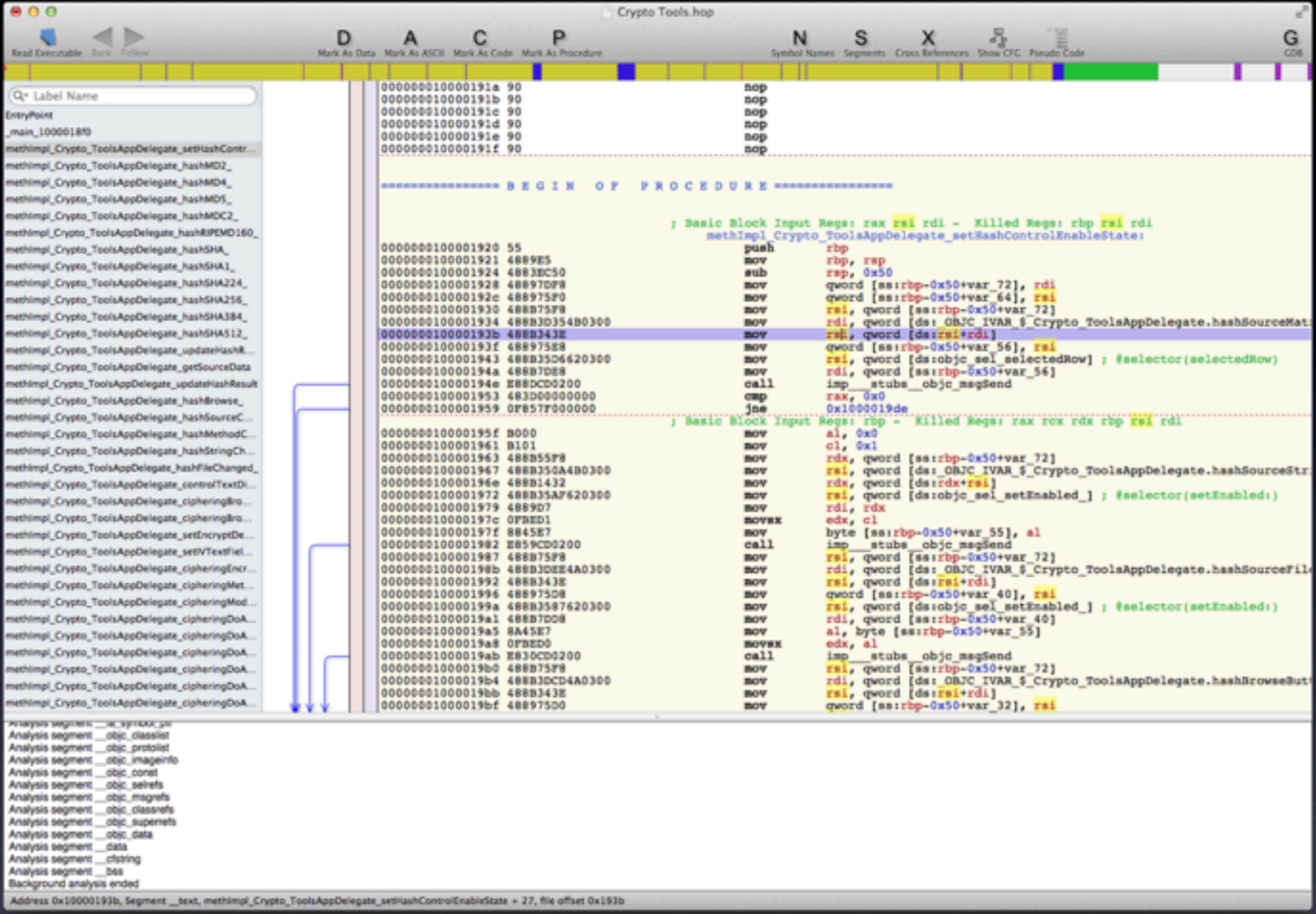
```
00000001000027f4 415E                                    pop        r14
00000001000027f6 415F                                    pop        r15
00000001000027f8 5D                                      pop        rbp
00000001000027f9 C3                                      ret
                                         ; Basic Block Input Regs: <nothing> -  Killed Regs: <nothing>
00000001000027fa E82D9E0200                              call       imp___stubs___stack_chk_fail ; XREF=0x100002
                    ; endp


================ B E G I N   O F   P R O C E D U R E ================


                                         ; Basic Block Input Regs: rcx rdi -  Killed Regs: rax rbp r15
                                              methImpl_AppDelegate_observeValueForKeyPath_ofObject_change_c
00000001000027ff 55                                      push       rbp
0000000100002800 4889E5                                  mov        rbp, rsp
0000000100002803 4157                                    push       r15
0000000100002805 4156                                    push       r14
0000000100002807 4155                                    push       r13
0000000100002809 4154                                    push       r12
000000010000280b 53                                      push       rbx
000000010000280c 4881EC98010000                          sub        rsp, 0x198
0000000100002813 4989CF                                  mov        r15, rcx
0000000100002816 488B0543F80300                          mov        rax, qword [ds:imp___got___stack_chk_guard]
000000010000281d 488B00                                  mov        rax, qword [ds:rax]
0000000100002820 488945D0                                mov        qword [ss:rbp-0x1c0+var_400], rax
0000000100002824 488B0565D70400                          mov        rax, qword [ds:0x10004ff90]
000000010000282b 803C0700                                cmp        byte [ds:rdi+rax], 0x0
000000010000282f 0F84CE020000                            je         0x100002b03
                                         ; Basic Block Input Regs: rax rdi r15 -  Killed Regs: rdx rbx rsi
0000000100002835 488B35FC7B0400                          mov        rsi, qword [ds:objc_sel_characterOfEntry_] ;
000000010000283c 4C8B353DF80300                          mov        r14, qword [ds:imp___got__objc_msgSend]
0000000100002843 4889FB                                  mov        rbx, rdi
0000000100002846 4C89FA                                  mov        rdx, r15
0000000100002849 41FFD6                                  call       r14
000000010000284c 4989C4                                  mov        r12, rax
000000010000284f 488B35EA7B0400                          mov        rsi, qword [ds:objc_sel_isChecked] ; @selecto
0000000100002856 4C89FF                                  mov        rdi, r15
0000000100002859 41FFD6                                  call       r14
000000010000285c 84C0                                    test       al, al
000000010000285e 0F843A010000                            je         0x10000299e
                                         ; Basic Block Input Regs: rax rbx r12 -  Killed Regs: rdx rbp rsi
0000000100002864 48899D40FEFFFF                          mov        qword [ss:rbp-0x1c0+var_0], rbx
000000010000286b 488B15D67B0400                          mov        rdx, qword [ds:objc_sel_dependencies] ; @sele
0000000100002872 488D3597870400                          lea        rsi, qword [ds:objc_msg_respondsToSelector_]
0000000100002879 4C89E7                                  mov        rdi, r12
```

Address 0x100002891, Segment __text, methImpl_AppDelegate_observeValueForKeyPath_ofObjec

```
function methImpl_AppDelegate_observeValueForKeyPath_ofObject_change_context_ {
    r15 = rcx;
    var_400 = **__stack_chk_guard;
    if (*(int8_t *)(rdi + *0x10004ff90) != 0x0) {
            r14 = *objc_msgSend;
            rbx = rdi;
            rax = [rdi characterOfEntry:r15];
            r12 = rax;
            rax = [r15 isChecked];
            if (rax != 0x0) {
                    var_0 = rbx;
                    rax = [r12 respondsToSelector:@selector(dependencies)];
                    if (rax != 0x0) {
                            r14 = *objc_msgSend;
                            rax = [r12 dependencies];
                            var_8 = rax;
                            rax = [rax countByEnumeratingWithState:&var_336 objects:&var_208 count:0x10];
                            if (rax != 0x0) {
                                    r15 = *var_352;
                                    do {
                                            r13 = 0x0;
                                            do {
                                                    if (*var_352 != r15) {
                                                            objc_enumerationMutation(var_8);
```



EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...

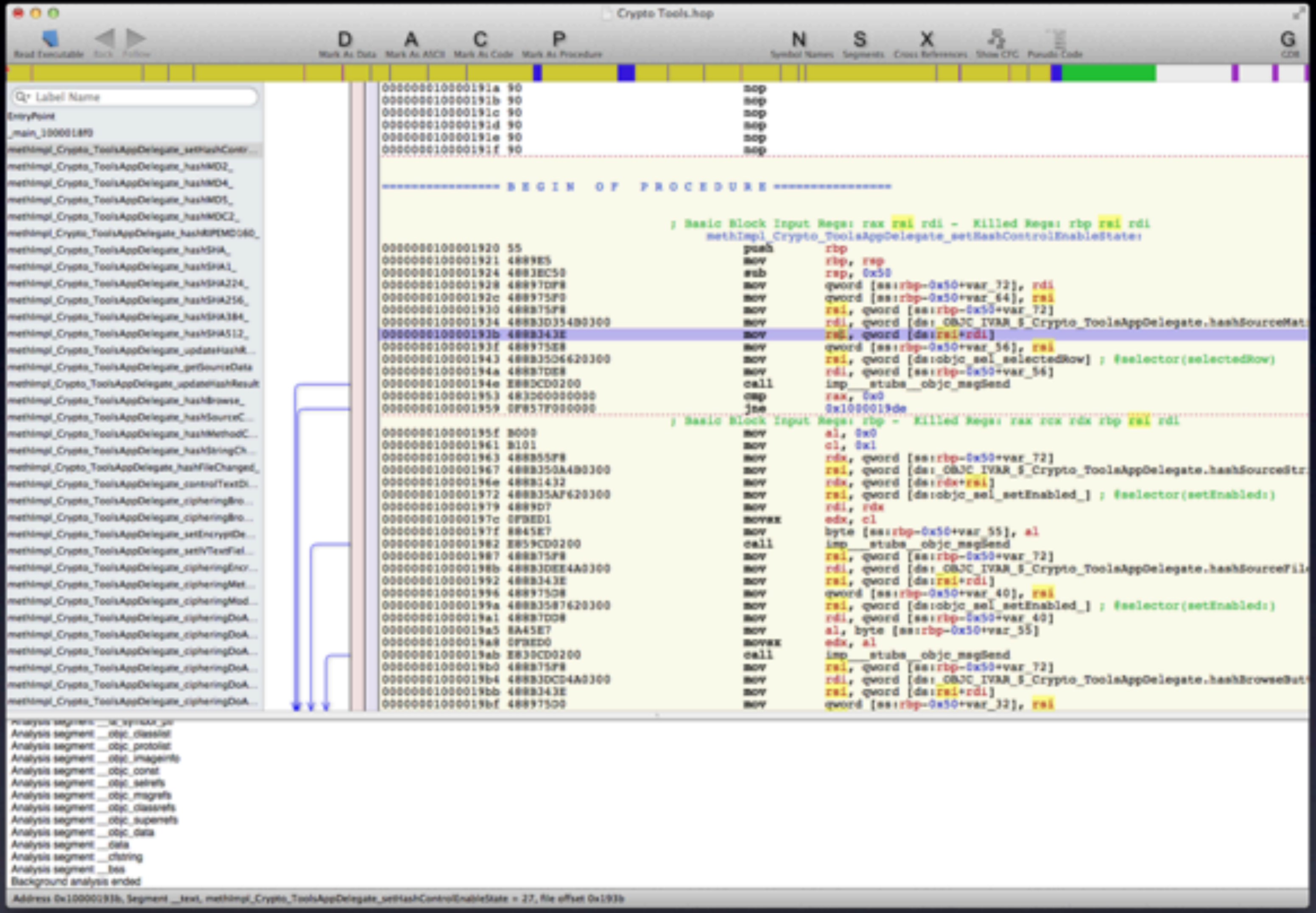
```
000000010000191a 90                         nop
000000010000191b 90                         nop
000000010000191c 90                         nop
000000010000191d 90                         nop
000000010000191e 90                         nop
000000010000191f 90                         nop

================ B E G I N   O F   P R O C E D U R E ================

                                 ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                                    methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                         push       rbp
0000000100001921 4889E5                     mov        rbp, rsp
0000000100001924 4883EC50                   sub        rsp, 0x50
0000000100001928 48897DF8                   mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0                   mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8                   mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300             mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E                   mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8                   mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300             mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8                   mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E88DCD0200                 call       imp___stubs__objc_msgSend
0000000100001953 483D00000000               cmp        rax, 0x0
0000000100001959 0F857F000000               jne        0x1000019de
                                 ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                       mov        al, 0x0
0000000100001961 B101                       mov        cl, 0x1
0000000100001963 488B55F8                   mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300             mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432                   mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300             mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                     mov        rdi, rdx
000000010000197c 0FBED1                     movsx      edx, cl
000000010000197f 8845E7                     mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200                 call       imp___stubs__objc_msgSend
0000000100001987 488B75F8                   mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300             mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E                   mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8                   mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300             mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8                   mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                     mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                     movsx      edx, al
00000001000019ab E830CD0200                 call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8                   mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300             mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E                   mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0                   mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b



```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr…
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
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methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR…
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC…
methImpl_Crypto_ToolsAppDelegate_hashMethodC…
methImpl_Crypto_ToolsAppDelegate_hashStringCh…
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi…
methImpl_Crypto_ToolsAppDelegate_cipheringBro…
methImpl_Crypto_ToolsAppDelegate_cipheringBro…
methImpl_Crypto_ToolsAppDelegate_setEncryptDe…
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel…
methImpl_Crypto_ToolsAppDelegate_cipheringEncr…
methImpl_Crypto_ToolsAppDelegate_cipheringMet…
methImpl_Crypto_ToolsAppDelegate_cipheringMod…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
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methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
```
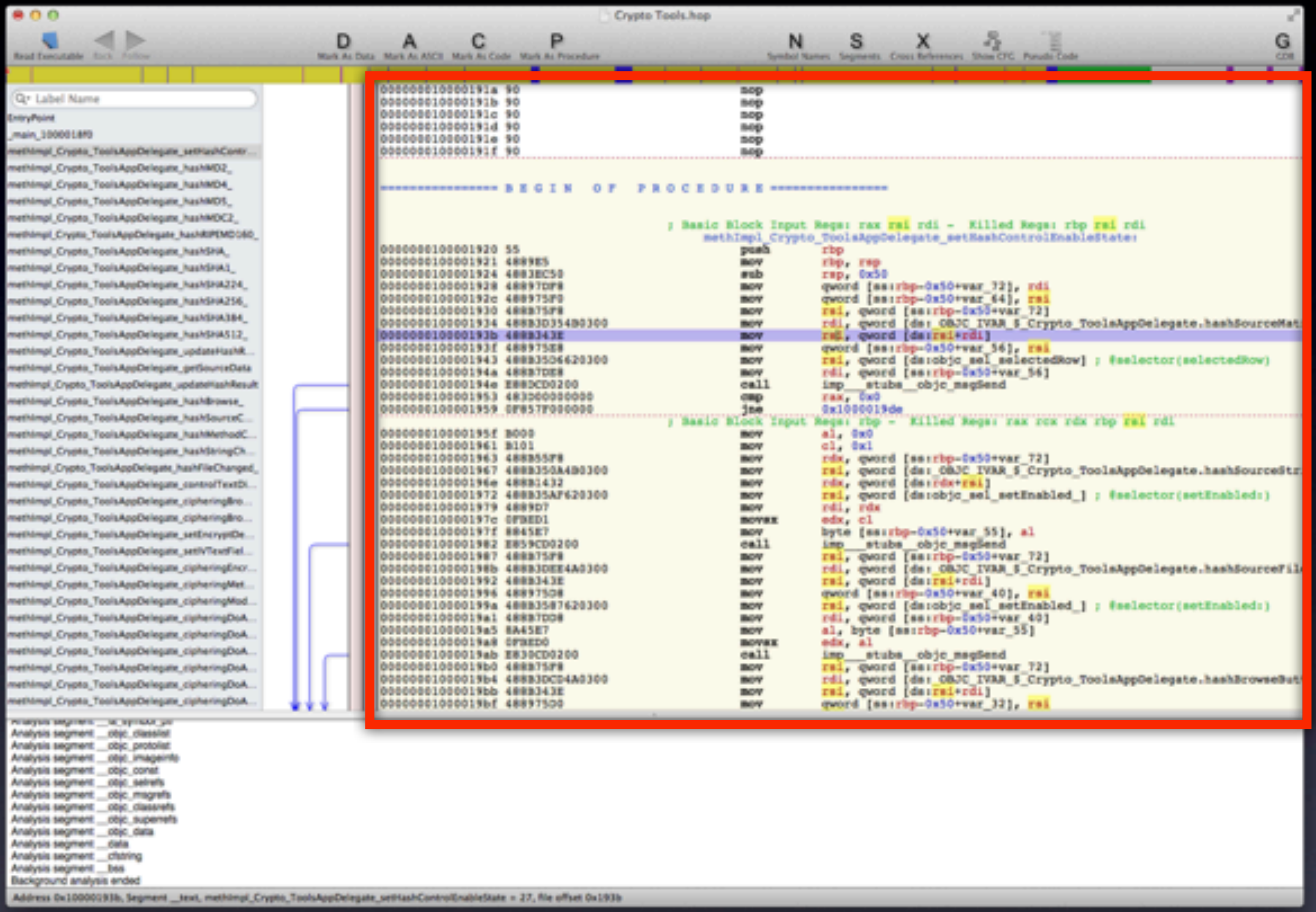

```
000000010000191a 90                        nop
000000010000191b 90                        nop
000000010000191c 90                        nop
000000010000191d 90                        nop
000000010000191e 90                        nop
000000010000191f 90                        nop

================ B E G I N   O F   P R O C E D U R E ================

                        ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                           methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                        push       rbp
0000000100001921 4889E5                    mov        rbp, rsp
0000000100001924 4883EC50                  sub        rsp, 0x50
0000000100001928 48897DF8                  mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0                  mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8                  mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300            mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E                  mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8                  mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B3506620300            mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8                  mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200                call       imp___stubs__objc_msgSend
0000000100001953 483D00000000              cmp        rax, 0x0
0000000100001959 0F857F000000              jne        0x1000019de
                        ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                      mov        al, 0x0
0000000100001961 B101                      mov        cl, 0x1
0000000100001963 488B55F8                  mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300            mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432                  mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300            mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                    mov        rdi, rdx
000000010000197c 0FBED1                    movsx      edx, cl
000000010000197f 8845E7                    mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200                call       imp___stubs__objc_msgSend
0000000100001987 488B75F8                  mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300            mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E                  mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8                  mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300            mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8                  mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                    mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                    movsx      edx, al
00000001000019ab E830CD0200                call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8                  mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300            mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E                  mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0                  mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Code désassemblé



```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
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methImpl_Crypto_ToolsAppDelegate_hashSourceC...
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000000010000191a 90                  nop
000000010000191b 90                  nop
000000010000191c 90                  nop
000000010000191d 90                  nop
000000010000191e 90                  nop
000000010000191f 90                  nop

=============== B E G I N   O F   P R O C E D U R E ===============

                         ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                            methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                  push       rbp
0000000100001921 4889E5              mov        rbp, rsp
0000000100001924 4883EC50            sub        rsp, 0x50
0000000100001928 48897DF8            mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0            mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E            mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8            mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300      mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8            mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200          call       imp___stubs__objc_msgSend
0000000100001953 483D00000000        cmp        rax, 0x0
0000000100001959 0F857F000000        jne        0x1000019de
                         ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                mov        al, 0x0
0000000100001961 B101                mov        cl, 0x1
0000000100001963 488B55F8            mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300      mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432            mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300      mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7              mov        rdi, rdx
000000010000197c 0FBED1              movsx      edx, cl
000000010000197f 8845E7              mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200          call       imp___stubs__objc_msgSend
0000000100001987 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E            mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8            mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300      mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8            mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7              mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0              movsx      edx, al
00000001000019ab E830CD0200          call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E            mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0            mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
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Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```
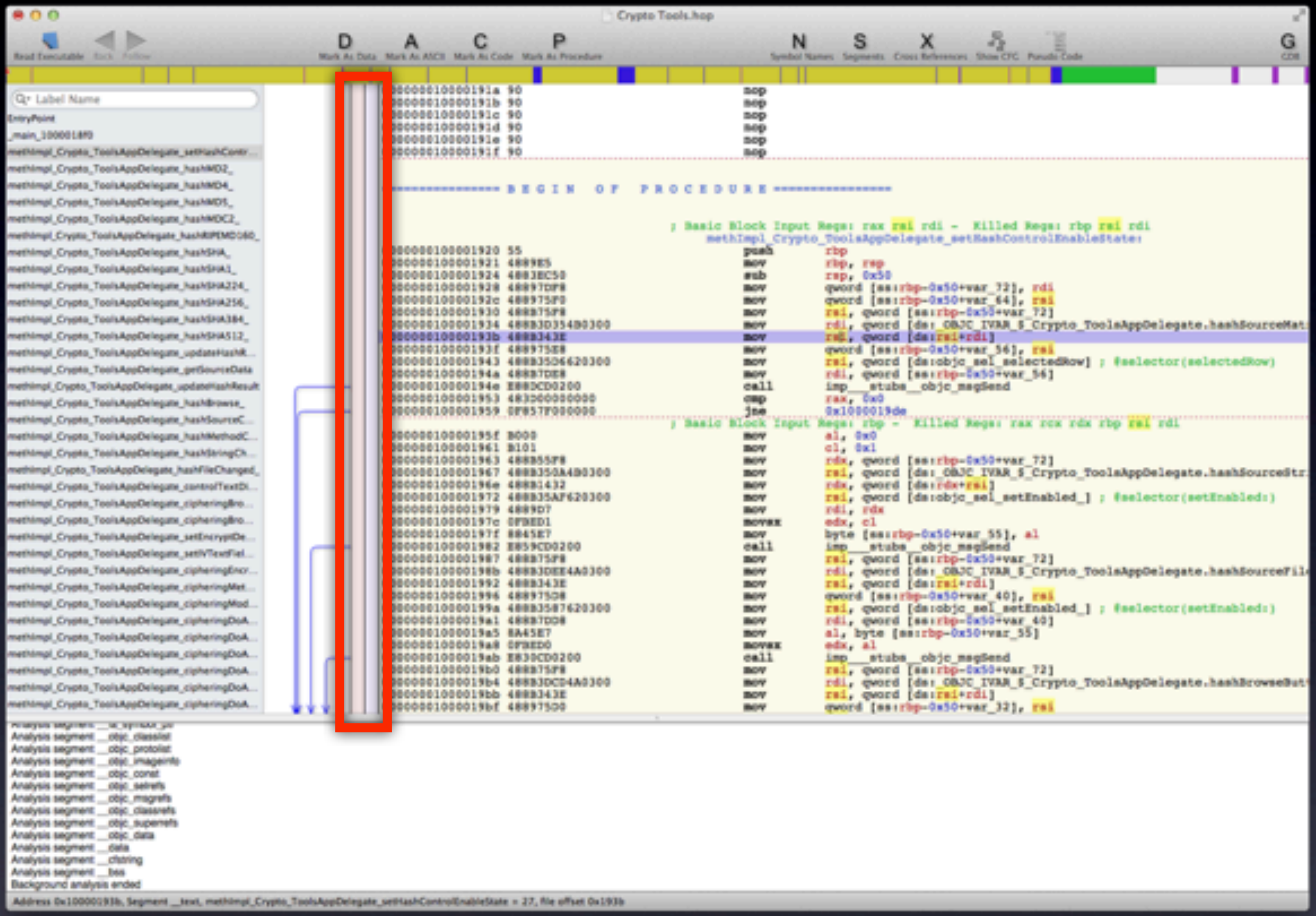

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Signets
et
Points d’arrêt



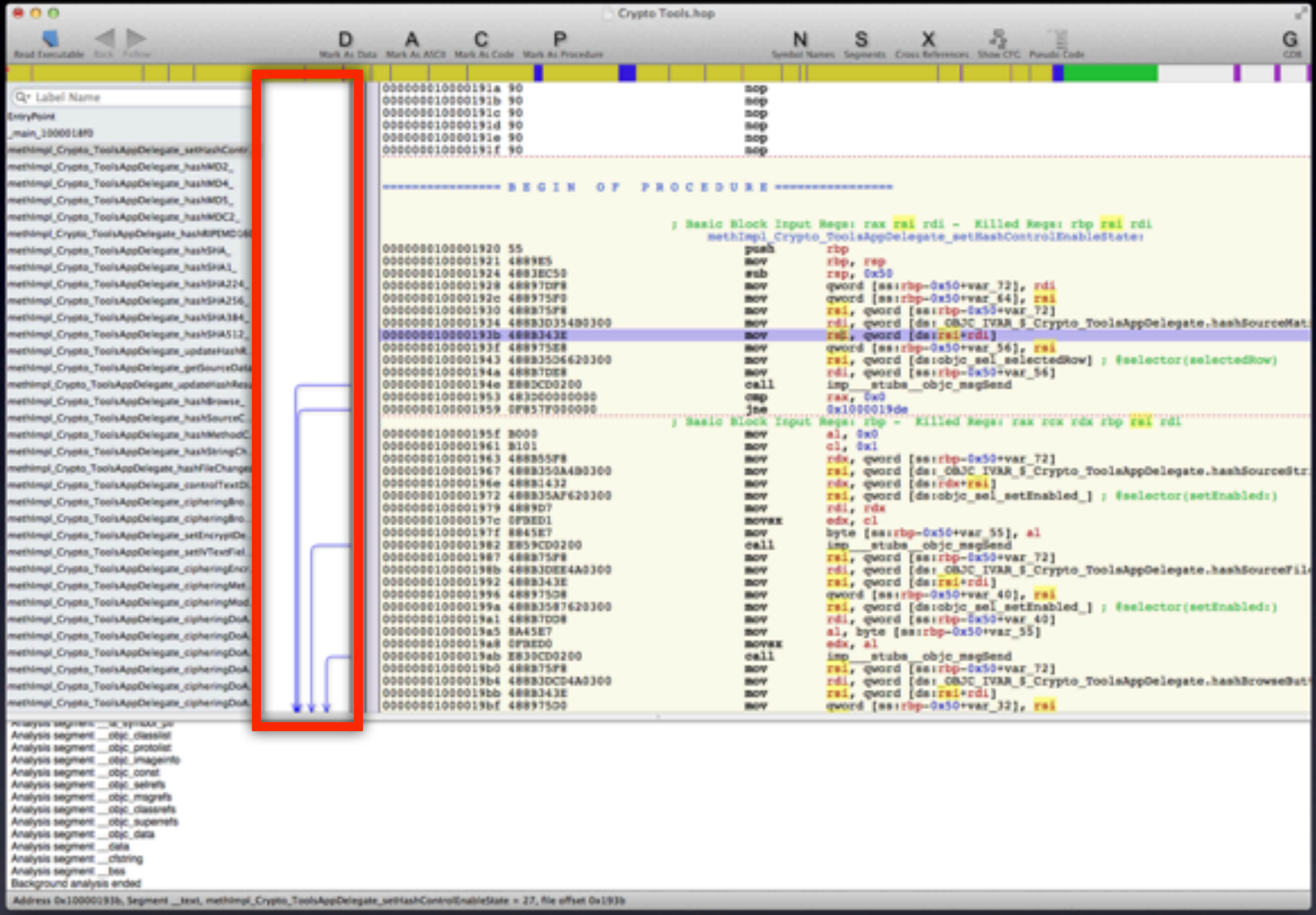
```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
```

```
00000010000191a 90                          nop
00000010000191b 90                          nop
00000010000191c 90                          nop
00000010000191d 90                          nop
00000010000191e 90                          nop
00000010000191f 90                          nop

============== B E G I N   O F   P R O C E D U R E ================

                        ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                           methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
000000100001920 55                          push       rbp
000000100001921 4889E5                      mov        rbp, rsp
000000100001924 4883EC50                    sub        rsp, 0x50
000000100001928 48897DF8                    mov        qword [ss:rbp-0x50+var_72], rdi
00000010000192c 488975F0                    mov        qword [ss:rbp-0x50+var_64], rsi
000000100001930 488B75F8                    mov        rsi, qword [ss:rbp-0x50+var_72]
000000100001934 488B3D354B0300              mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
00000010000193b 488B343E                    mov        rsi, qword [ds:rsi+rdi]
00000010000193f 488975E8                    mov        qword [ss:rbp-0x50+var_56], rsi
000000100001943 488B35D6620300              mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
00000010000194a 488B7DE8                    mov        rdi, qword [ss:rbp-0x50+var_56]
00000010000194e E8BDCD0200                  call       imp___stubs__objc_msgSend
000000100001953 483D000000000               cmp        rax, 0x0
000000100001959 0F857F000000                jne        0x1000019de
                        ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
00000010000195f B000                        mov        al, 0x0
000000100001961 B101                        mov        cl, 0x1
000000100001963 488B55F8                    mov        rdx, qword [ss:rbp-0x50+var_72]
000000100001967 488B350A4B0300              mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
00000010000196e 488B1432                    mov        rdx, qword [ds:rdx+rsi]
000000100001972 488B35AF620300              mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
000000100001979 4889D7                      mov        rdi, rdx
00000010000197c 0FBED1                      movsx      edx, cl
00000010000197f 8845E7                      mov        byte [ss:rbp-0x50+var_55], al
000000100001982 E859CD0200                  call       imp___stubs__objc_msgSend
000000100001987 488B75F8                    mov        rsi, qword [ss:rbp-0x50+var_72]
00000010000198b 488B3DEE4A0300              mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
000000100001992 488B343E                    mov        rsi, qword [ds:rsi+rdi]
000000100001996 488975D8                    mov        qword [ss:rbp-0x50+var_40], rsi
00000010000199a 488B3587620300              mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000001000019a1 488B7DD8                    mov        rdi, qword [ss:rbp-0x50+var_40]
0000001000019a5 8A45E7                      mov        al, byte [ss:rbp-0x50+var_55]
0000001000019a8 0FBED0                      movsx      edx, al
0000001000019ab E830CD0200                  call       imp___stubs__objc_msgSend
0000001000019b0 488B75F8                    mov        rsi, qword [ss:rbp-0x50+var_72]
0000001000019b4 488B3DCD4A0300              mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
0000001000019bb 488B343E                    mov        rsi, qword [ds:rsi+rdi]
0000001000019bf 488975D0                    mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Flot d'exécution du programme

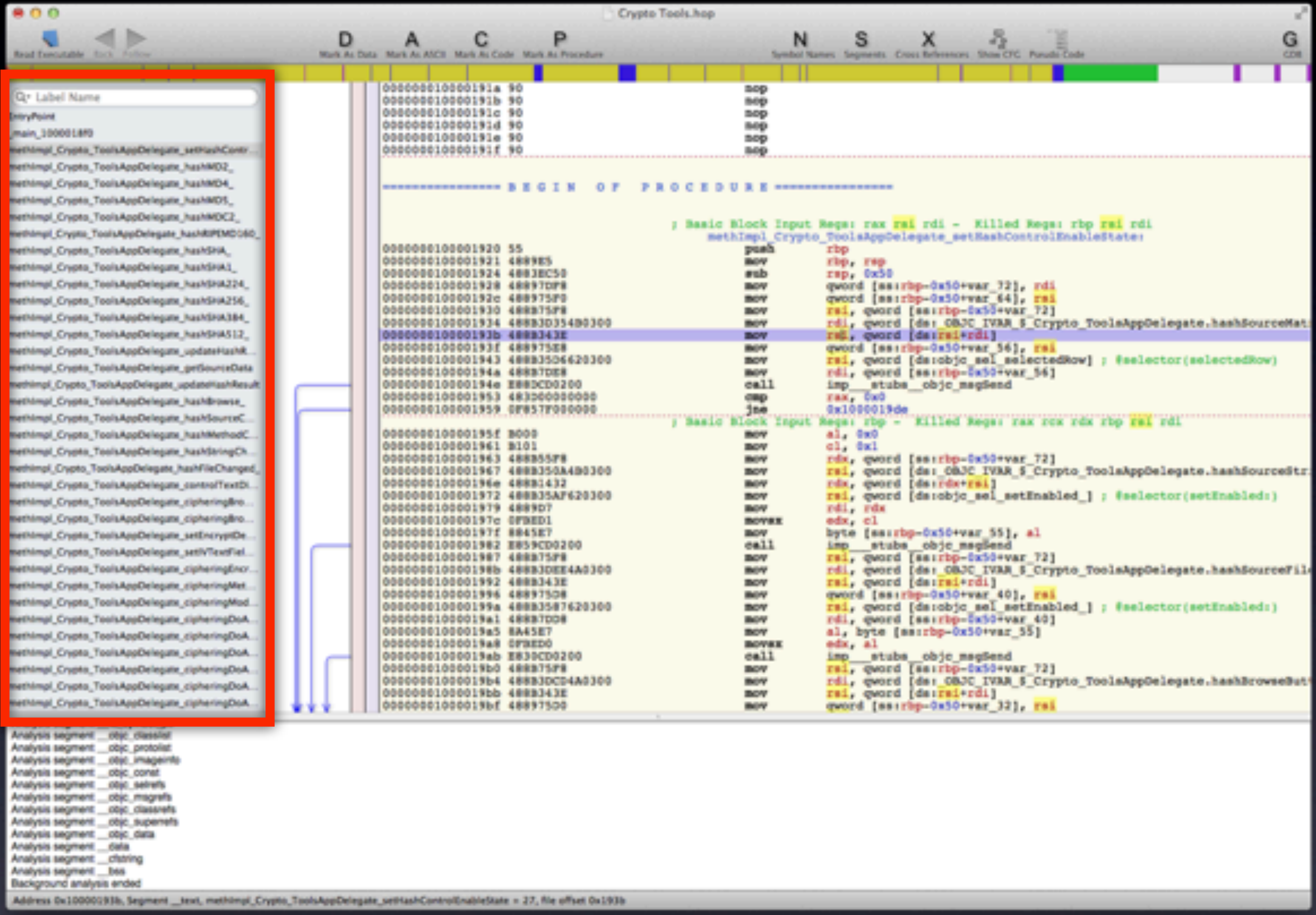


```
EntryPoint
_main_100001880
methImpl_Crypto_ToolsAppDelegate_setHashContr
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResu
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC
methImpl_Crypto_ToolsAppDelegate_hashMethodC
methImpl_Crypto_ToolsAppDelegate_hashStringCh
methImpl_Crypto_ToolsAppDelegate_hashFileChange
methImpl_Crypto_ToolsAppDelegate_controlTextDi
methImpl_Crypto_ToolsAppDelegate_cipheringBro
methImpl_Crypto_ToolsAppDelegate_cipheringBro
methImpl_Crypto_ToolsAppDelegate_setEncryptDe
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel
methImpl_Crypto_ToolsAppDelegate_cipheringEncr
methImpl_Crypto_ToolsAppDelegate_cipheringMet
methImpl_Crypto_ToolsAppDelegate_cipheringMod
methImpl_Crypto_ToolsAppDelegate_cipheringDoA
methImpl_Crypto_ToolsAppDelegate_cipheringDoA
methImpl_Crypto_ToolsAppDelegate_cipheringDoA
methImpl_Crypto_ToolsAppDelegate_cipheringDoA
methImpl_Crypto_ToolsAppDelegate_cipheringDoA
methImpl_Crypto_ToolsAppDelegate_cipheringDoA
```

```
000000010000191a 90                  nop
000000010000191b 90                  nop
000000010000191c 90                  nop
000000010000191d 90                  nop
000000010000191e 90                  nop
000000010000191f 90                  nop

================ B E G I N   O F   P R O C E D U R E ================

                                ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                                  methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                  push       rbp
0000000100001921 4889E5              mov        rbp, rsp
0000000100001924 4883EC50            sub        rsp, 0x50
0000000100001928 48897DF8            mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0            mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E            mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8            mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300      mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8            mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200          call       imp___stubs__objc_msgSend
0000000100001953 483D00000000        cmp        rax, 0x0
0000000100001959 0F857F000000        jne        0x1000019de
                                ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                mov        al, 0x0
0000000100001961 B101                mov        cl, 0x1
0000000100001963 488B55F8            mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300      mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432            mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300      mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7              mov        rdi, rdx
000000010000197c 0FBED1              movsx      edx, cl
000000010000197f 8845E7              mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200          call       imp___stubs__objc_msgSend
0000000100001987 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E            mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8            mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300      mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8            mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7              mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0              movsx      edx, al
00000001000019ab E830CD0200          call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E            mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0            mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b



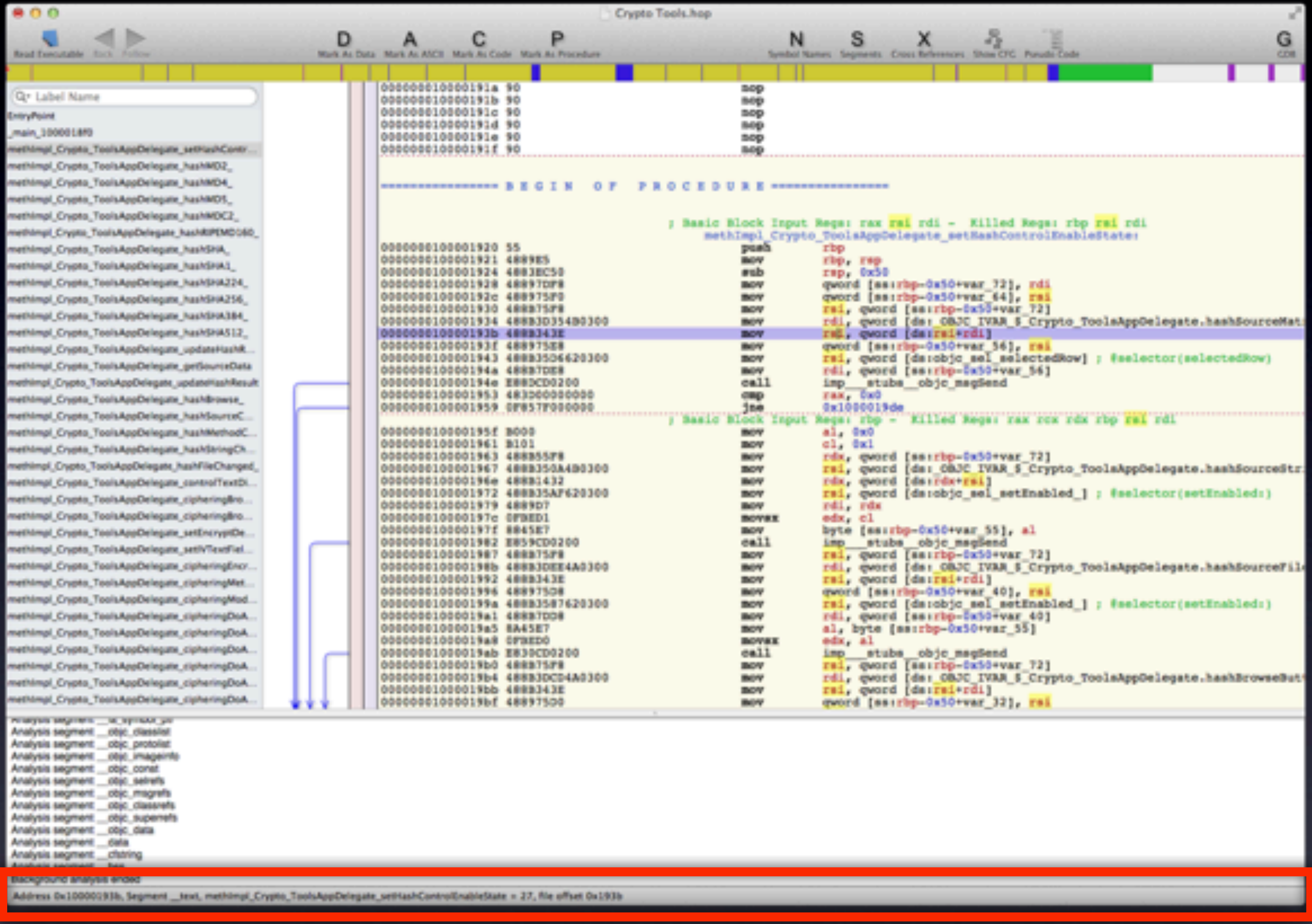
```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
```

```
000000010000191a 90                    nop
000000010000191b 90                    nop
000000010000191c 90                    nop
000000010000191d 90                    nop
000000010000191e 90                    nop
000000010000191f 90                    nop

=============== B E G I N   O F   P R O C E D U R E ===============

                     ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                        methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                    push       rbp
0000000100001921 4889E5                mov        rbp, rsp
0000000100001924 4883EC50              sub        rsp, 0x50
0000000100001928 48897DF8              mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0              mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8              mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300        mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E              mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8              mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300        mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8              mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E88DCD0200            call       imp___stubs__objc_msgSend
0000000100001953 483D00000000          cmp        rax, 0x0
0000000100001959 0F857F000000          jne        0x1000019de
                     ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                  mov        al, 0x0
0000000100001961 B101                  mov        cl, 0x1
0000000100001963 488B55F8              mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300        mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432              mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300        mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                mov        rdi, rdx
000000010000197c 0FBED1                movsx      edx, cl
000000010000197f 8845E7                mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200            call       imp___stubs__objc_msgSend
0000000100001987 488B75F8              mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300        mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E              mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8              mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300        mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8              mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                movsx      edx, al
00000001000019ab E830CD0200            call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8              mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300        mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E              mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0              mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Liste des labels et des chaînes de caractères



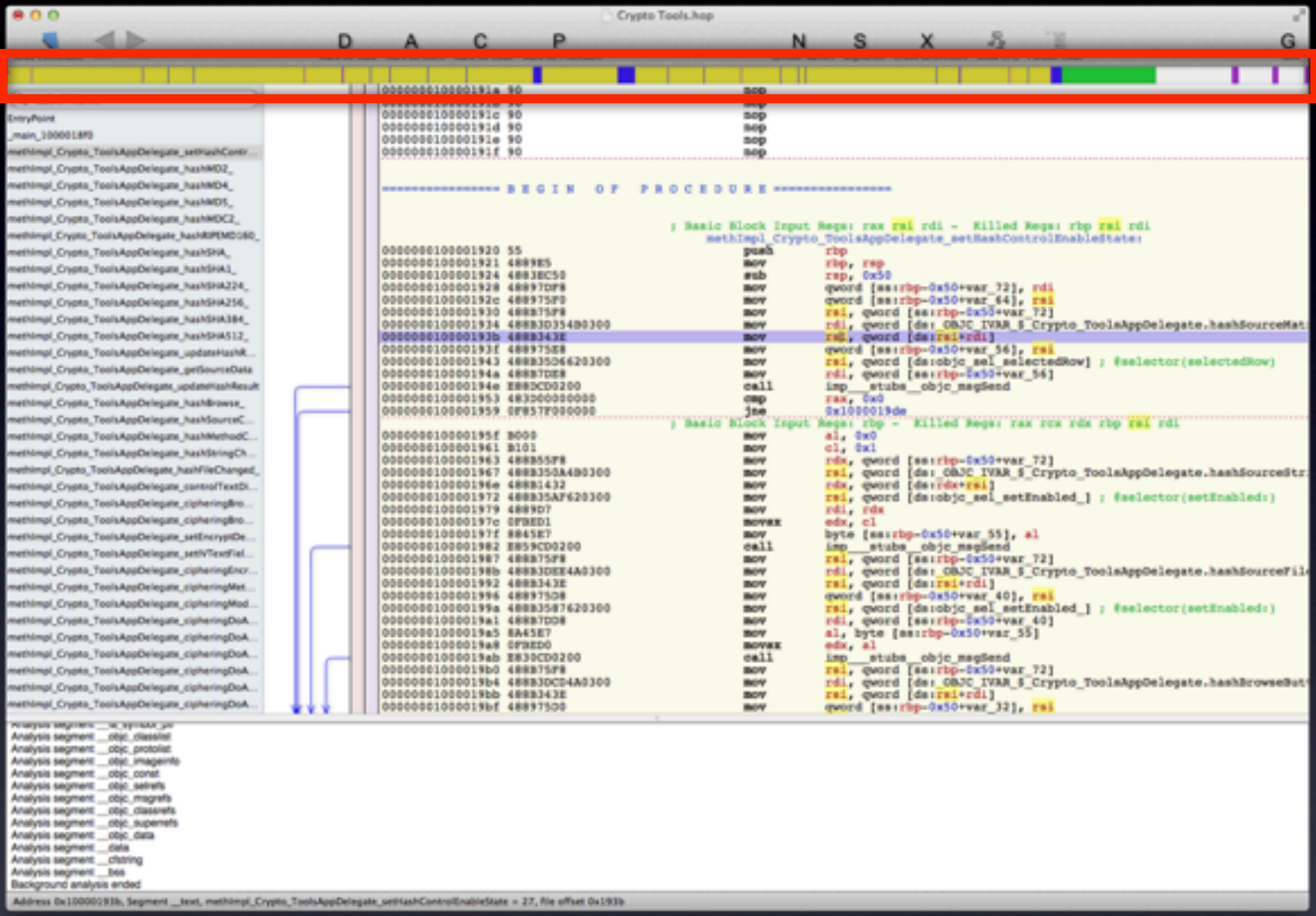
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr…
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR…
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC…
methImpl_Crypto_ToolsAppDelegate_hashMethodC…
methImpl_Crypto_ToolsAppDelegate_hashStringCh…
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi…
methImpl_Crypto_ToolsAppDelegate_cipheringBro…
methImpl_Crypto_ToolsAppDelegate_cipheringBro…
methImpl_Crypto_ToolsAppDelegate_setEncryptDe…
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel…
methImpl_Crypto_ToolsAppDelegate_cipheringEncr…
methImpl_Crypto_ToolsAppDelegate_cipheringMet…
methImpl_Crypto_ToolsAppDelegate_cipheringMod…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…
methImpl_Crypto_ToolsAppDelegate_cipheringDoA…

```
000000010000191a 90                  nop
000000010000191b 90                  nop
000000010000191c 90                  nop
000000010000191d 90                  nop
000000010000191e 90                  nop
000000010000191f 90                  nop

=============== B E G I N   O F   P R O C E D U R E ===============

                         ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                            methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                  push       rbp
0000000100001921 4889E5              mov        rbp, rsp
0000000100001924 4883EC50            sub        rsp, 0x50
0000000100001928 48897DF8            mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0            mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E            mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8            mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300      mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8            mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200          call       imp___stubs__objc_msgSend
0000000100001953 483D00000000        cmp        rax, 0x0
0000000100001959 0F857F000000        jne        0x1000019de
                         ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                mov        al, 0x0
0000000100001961 B101                mov        cl, 0x1
0000000100001963 488B55F8            mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300      mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432            mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300      mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7              mov        rdi, rdx
000000010000197c 0FBED1              movsx      edx, cl
000000010000197f 8845E7              mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200          call       imp___stubs__objc_msgSend
0000000100001987 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E            mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8            mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300      mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8            mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7              mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0              movsx      edx, al
00000001000019ab E830CD0200          call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8            mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300      mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E            mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0            mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

```
Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b
```

Position dans le fichier et dans le code



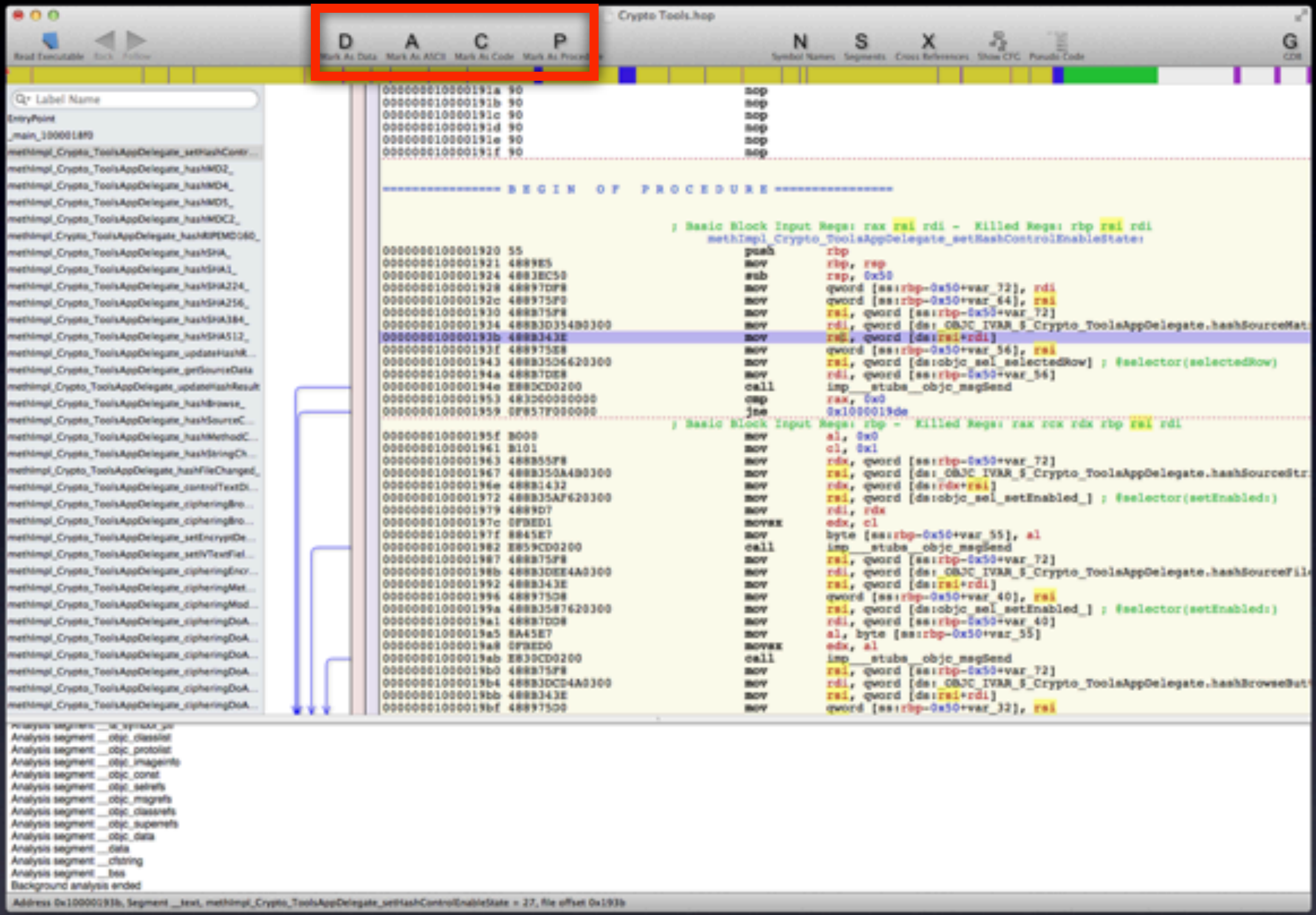
```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
```

```
000000010000191a 90                    nop
000000010000191b 90                    nop
000000010000191c 90                    nop
000000010000191d 90                    nop
000000010000191e 90                    nop
000000010000191f 90                    nop

================ B E G I N   O F   P R O C E D U R E ================

                       ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                          methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                    push       rbp
0000000100001921 4889E5                mov        rbp, rsp
0000000100001924 4883EC50              sub        rsp, 0x50
0000000100001928 48897DF8              mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0              mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8              mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300        mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E              mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8              mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300        mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8              mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200            call       imp___stubs__objc_msgSend
0000000100001953 4883D000000000        cmp        rax, 0x0
0000000100001959 0F857F000000          jne        0x1000019de
                       ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                  mov        al, 0x0
0000000100001961 B101                  mov        cl, 0x1
0000000100001963 488B55F8              mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300        mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432              mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300        mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                mov        rdi, rdx
000000010000197c 0FBED1                movsx      edx, cl
000000010000197f 8845E7                mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200            call       imp___stubs__objc_msgSend
0000000100001987 488B75F8              mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300        mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E              mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8              mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300        mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8              mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                movsx      edx, al
00000001000019ab E830CD0200            call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8              mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300        mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E              mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0              mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Zone de navigation rapide



```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
```

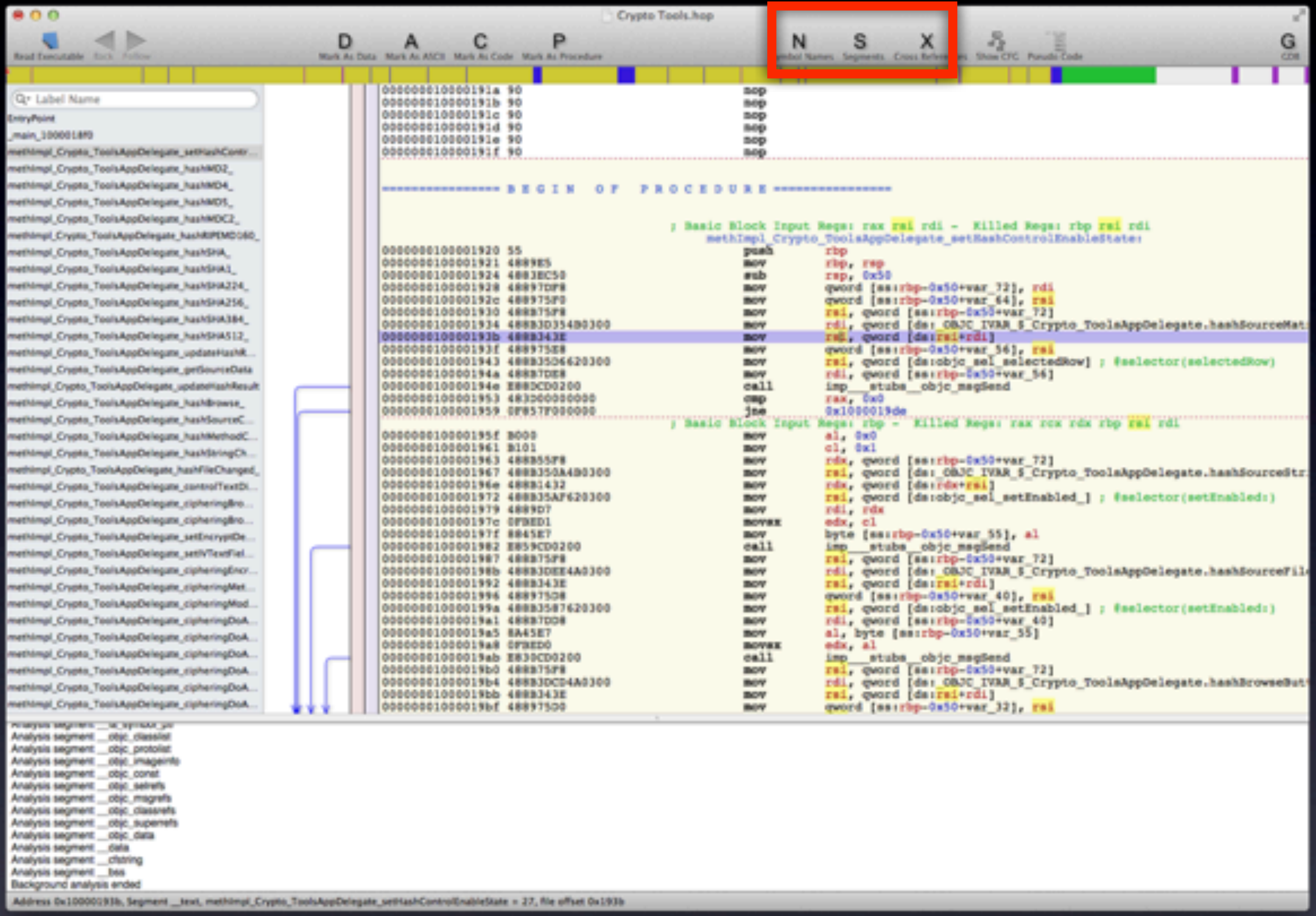
```
000000010000191a 90                       nop
000000010000191b 90                       nop
000000010000191c 90                       nop
000000010000191d 90                       nop
000000010000191e 90                       nop
000000010000191f 90                       nop

================ B E G I N   O F   P R O C E D U R E ================

                          ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                             methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                       push       rbp
0000000100001921 4889E5                   mov        rbp, rsp
0000000100001924 4883EC50                 sub        rsp, 0x50
0000000100001928 48897DF8                 mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0                 mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8                 mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300           mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E                 mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8                 mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300           mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8                 mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200               call       imp___stubs__objc_msgSend
0000000100001953 483D00000000             cmp        rax, 0x0
0000000100001959 0F857F000000             jne        0x1000019de
                          ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                     mov        al, 0x0
0000000100001961 B101                     mov        cl, 0x1
0000000100001963 488B55F8                 mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300           mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432                 mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300           mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                   mov        rdi, rdx
000000010000197c 0FBED1                   movsx      edx, cl
000000010000197f 8845E7                   mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200               call       imp___stubs__objc_msgSend
0000000100001987 488B75F8                 mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300           mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E                 mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8                 mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300           mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8                 mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                   mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                   movsx      edx, al
00000001000019ab E830CD0200               call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8                 mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300           mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E                 mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0                 mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

```
Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b
```

Outils de transformations

Outils de recherche

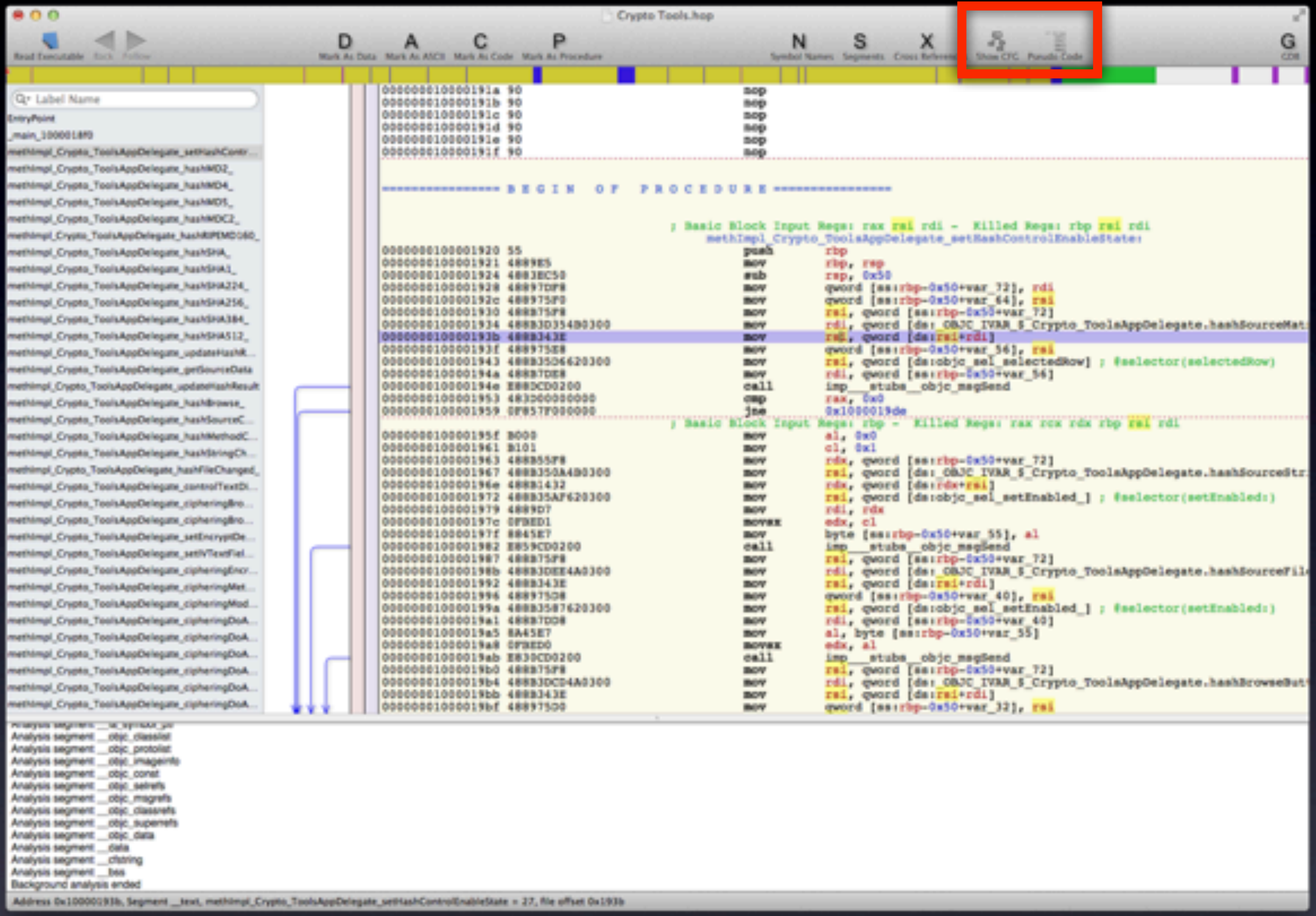


EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...

```
000000010000191a 90                       nop
000000010000191b 90                       nop
000000010000191c 90                       nop
000000010000191d 90                       nop
000000010000191e 90                       nop
000000010000191f 90                       nop

================ B E G I N   O F   P R O C E D U R E ================

                        ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                            methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                       push      rbp
0000000100001921 4889E5                   mov       rbp, rsp
0000000100001924 4883EC50                 sub       rsp, 0x50
0000000100001928 48897DF8                 mov       qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0                 mov       qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8                 mov       rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300           mov       rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E                 mov       rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8                 mov       qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B3506620300           mov       rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8                 mov       rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200               call      imp___stubs__objc_msgSend
0000000100001953 4833D000000000           cmp       rax, 0x0
0000000100001959 0F857F000000             jne       0x1000019de
                        ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                     mov       al, 0x0
0000000100001961 B101                     mov       cl, 0x1
0000000100001963 488B55F8                 mov       rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300           mov       rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432                 mov       rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300           mov       rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                   mov       rdi, rdx
000000010000197c 0FBED1                   movsx     edx, cl
000000010000197f 8845E7                   mov       byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200               call      imp___stubs__objc_msgSend
0000000100001987 488B75F8                 mov       rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300           mov       rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E                 mov       rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8                 mov       qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300           mov       rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8                 mov       rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                   mov       al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                   movsx     edx, al
00000001000019ab E830CD0200               call      imp___stubs__objc_msgSend
00000001000019b0 488B75F8                 mov       rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300           mov       rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E                 mov       rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0                 mov       qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b



```
EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
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methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
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methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
```
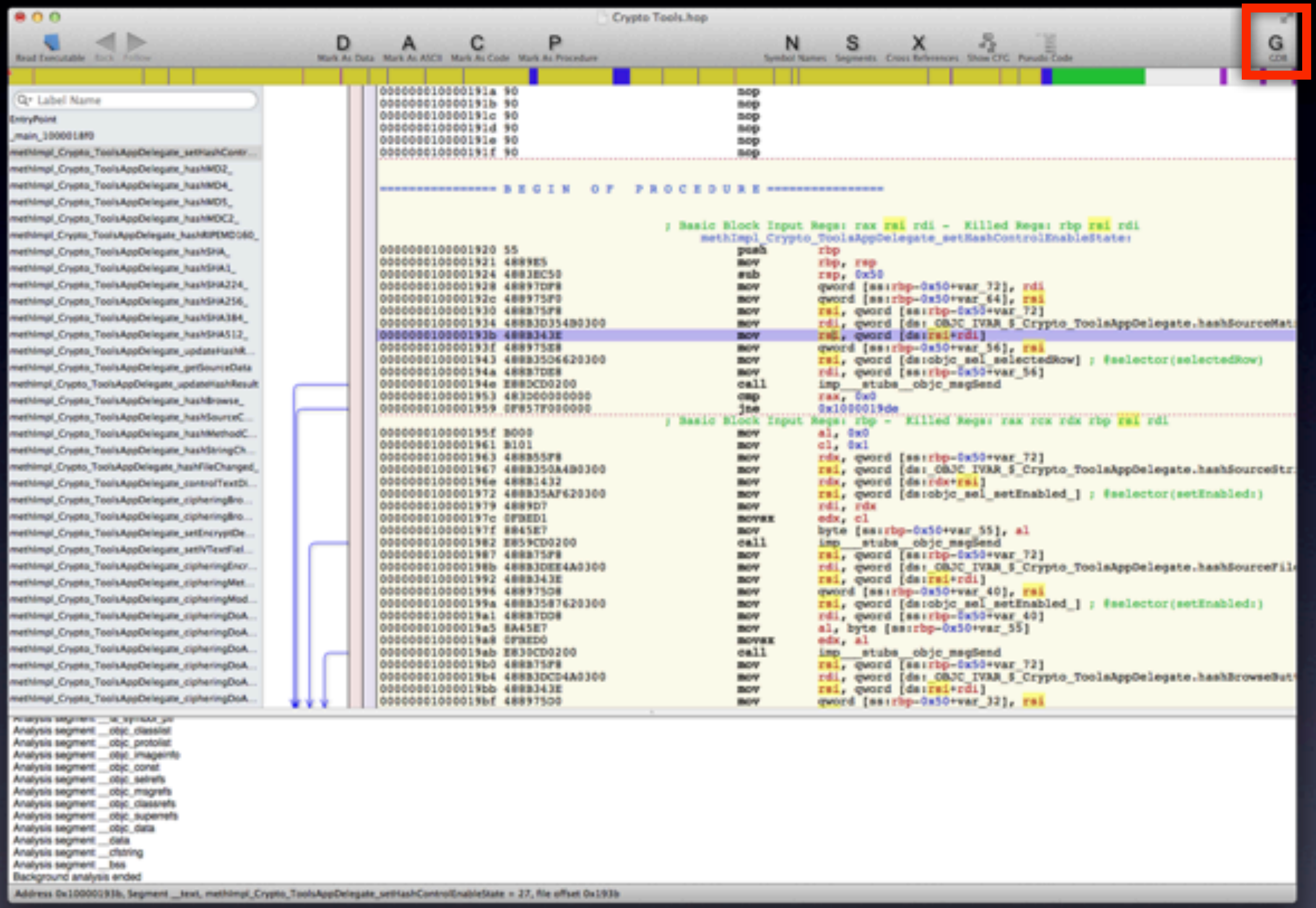

```
000000010000191a 90                     nop
000000010000191b 90                     nop
000000010000191c 90                     nop
000000010000191d 90                     nop
000000010000191e 90                     nop
000000010000191f 90                     nop

=============== B E G I N   O F   P R O C E D U R E ===============

                      ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                         methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                     push       rbp
0000000100001921 4889E5                 mov        rbp, rsp
0000000100001924 4883EC50               sub        rsp, 0x50
0000000100001928 48897DF8               mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0               mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8               mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300         mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E               mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8               mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300         mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8               mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200             call       imp___stubs__objc_msgSend
0000000100001953 4839D00000000          cmp        rax, 0x0
0000000100001959 0F857F000000           jne        0x1000019de
                      ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                   mov        al, 0x0
0000000100001961 B101                   mov        cl, 0x1
0000000100001963 488B55F8               mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300         mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432               mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300         mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                 mov        rdi, rdx
000000010000197c 0FBED1                 movsx      edx, cl
000000010000197f 8845E7                 mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200             call       imp___stubs__objc_msgSend
0000000100001987 488B75F8               mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300         mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E               mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8               mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300         mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8               mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                 mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                 movsx      edx, al
00000001000019ab E830CD0200             call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8               mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300         mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E               mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0               mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Affichage du graphe
de la procédure
et du pseudo-code

Debugger



EntryPoint
_main_1000018f0
methImpl_Crypto_ToolsAppDelegate_setHashContr...
methImpl_Crypto_ToolsAppDelegate_hashMD2_
methImpl_Crypto_ToolsAppDelegate_hashMD4_
methImpl_Crypto_ToolsAppDelegate_hashMD5_
methImpl_Crypto_ToolsAppDelegate_hashMDC2_
methImpl_Crypto_ToolsAppDelegate_hashRIPEMD160_
methImpl_Crypto_ToolsAppDelegate_hashSHA_
methImpl_Crypto_ToolsAppDelegate_hashSHA1_
methImpl_Crypto_ToolsAppDelegate_hashSHA224_
methImpl_Crypto_ToolsAppDelegate_hashSHA256_
methImpl_Crypto_ToolsAppDelegate_hashSHA384_
methImpl_Crypto_ToolsAppDelegate_hashSHA512_
methImpl_Crypto_ToolsAppDelegate_updateHashR...
methImpl_Crypto_ToolsAppDelegate_getSourceData
methImpl_Crypto_ToolsAppDelegate_updateHashResult
methImpl_Crypto_ToolsAppDelegate_hashBrowse_
methImpl_Crypto_ToolsAppDelegate_hashSourceC...
methImpl_Crypto_ToolsAppDelegate_hashMethodC...
methImpl_Crypto_ToolsAppDelegate_hashStringCh...
methImpl_Crypto_ToolsAppDelegate_hashFileChanged_
methImpl_Crypto_ToolsAppDelegate_controlTextDi...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_cipheringBro...
methImpl_Crypto_ToolsAppDelegate_setEncryptDe...
methImpl_Crypto_ToolsAppDelegate_setIVTextFiel...
methImpl_Crypto_ToolsAppDelegate_cipheringEncr...
methImpl_Crypto_ToolsAppDelegate_cipheringMet...
methImpl_Crypto_ToolsAppDelegate_cipheringMod...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...
methImpl_Crypto_ToolsAppDelegate_cipheringDoA...

```
000000010000191a 90                     nop
000000010000191b 90                     nop
000000010000191c 90                     nop
000000010000191d 90                     nop
000000010000191e 90                     nop
000000010000191f 90                     nop

================ B E G I N   O F   P R O C E D U R E ================

                        ; Basic Block Input Regs: rax rsi rdi -  Killed Regs: rbp rsi rdi
                           methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState:
0000000100001920 55                     push       rbp
0000000100001921 4889E5                 mov        rbp, rsp
0000000100001924 4883EC50               sub        rsp, 0x50
0000000100001928 48897DF8               mov        qword [ss:rbp-0x50+var_72], rdi
000000010000192c 488975F0               mov        qword [ss:rbp-0x50+var_64], rsi
0000000100001930 488B75F8               mov        rsi, qword [ss:rbp-0x50+var_72]
0000000100001934 488B3D354B0300         mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceMat
000000010000193b 488B343E               mov        rsi, qword [ds:rsi+rdi]
000000010000193f 488975E8               mov        qword [ss:rbp-0x50+var_56], rsi
0000000100001943 488B35D6620300         mov        rsi, qword [ds:objc_sel_selectedRow] ; @selector(selectedRow)
000000010000194a 488B7DE8               mov        rdi, qword [ss:rbp-0x50+var_56]
000000010000194e E8BDCD0200             call       imp___stubs__objc_msgSend
0000000100001953 483D00000000           cmp        rax, 0x0
0000000100001959 0F857F000000           jne        0x1000019de
                        ; Basic Block Input Regs: rbp -  Killed Regs: rax rcx rdx rbp rsi rdi
000000010000195f B000                   mov        al, 0x0
0000000100001961 B101                   mov        cl, 0x1
0000000100001963 488B55F8               mov        rdx, qword [ss:rbp-0x50+var_72]
0000000100001967 488B350A4B0300         mov        rsi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceStr
000000010000196e 488B1432               mov        rdx, qword [ds:rdx+rsi]
0000000100001972 488B35AF620300         mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
0000000100001979 4889D7                 mov        rdi, rdx
000000010000197c 0FBED1                 movsx      edx, cl
000000010000197f 8845E7                 mov        byte [ss:rbp-0x50+var_55], al
0000000100001982 E859CD0200             call       imp___stubs__objc_msgSend
0000000100001987 488B75F8               mov        rsi, qword [ss:rbp-0x50+var_72]
000000010000198b 488B3DEE4A0300         mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashSourceFil
0000000100001992 488B343E               mov        rsi, qword [ds:rsi+rdi]
0000000100001996 488975D8               mov        qword [ss:rbp-0x50+var_40], rsi
000000010000199a 488B3587620300         mov        rsi, qword [ds:objc_sel_setEnabled_] ; @selector(setEnabled:)
00000001000019a1 488B7DD8               mov        rdi, qword [ss:rbp-0x50+var_40]
00000001000019a5 8A45E7                 mov        al, byte [ss:rbp-0x50+var_55]
00000001000019a8 0FBED0                 movsx      edx, al
00000001000019ab E830CD0200             call       imp___stubs__objc_msgSend
00000001000019b0 488B75F8               mov        rsi, qword [ss:rbp-0x50+var_72]
00000001000019b4 488B3DCD4A0300         mov        rdi, qword [ds:_OBJC_IVAR_$_Crypto_ToolsAppDelegate.hashBrowseBut
00000001000019bb 488B343E               mov        rsi, qword [ds:rsi+rdi]
00000001000019bf 488975D0               mov        qword [ss:rbp-0x50+var_32], rsi
```

```
Analysis segment __la_symbol_ptr
Analysis segment __objc_classlist
Analysis segment __objc_protolist
Analysis segment __objc_imageinfo
Analysis segment __objc_const
Analysis segment __objc_selrefs
Analysis segment __objc_msgrefs
Analysis segment __objc_classrefs
Analysis segment __objc_superrefs
Analysis segment __objc_data
Analysis segment __data
Analysis segment __cfstring
Analysis segment __bss
Background analysis ended
```

Address 0x10000193b, Segment __text, methImpl_Crypto_ToolsAppDelegate_setHashControlEnableState + 27, file offset 0x193b

Désassembleur

```
0x55, 0x48, 0x89, 0xe5, 0x48, 0x83, 0xec, 0x10
0xc7, 0x45, 0xfc, 0x00, 0x00, 0x00, 0x00, 0x89
0x7d, 0xf8, 0x48, 0x89, 0x75, 0xf0, 0x8b, 0x7d
0xf8, 0x48, 0x8b, 0x75, 0xf0, 0xe8, 0xcc, 0xcc
0x02, 0x00, 0x48, 0x83, 0xc4, 0x10, 0x5d, 0xc3
0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90
…
```

```
+00   0x55, 0x48, 0x89, 0xe5, 0x48, 0x83, 0xec, 0x10,
+08   0xc7, 0x45, 0xfc, 0x00, 0x00, 0x00, 0x00, 0x89,
+10   0x7d, 0xf8, 0x48, 0x89, 0x75, 0xf0, 0x8b, 0x7d,
+18   0xf8, 0x48, 0x8b, 0x75, 0xf0, 0xe8, 0xcc, 0xcc,
+20   0x02, 0x00, 0x48, 0x83, 0xc4, 0x10, 0x5d, 0xc3,
+28   0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90
```

Adresse	Type
00	Unexplored
01	Unexplored
02	Unexplored
03	Unexplored
04	Unexplored
05	Unexplored
06	Unexplored
07	Unexplored
08	Unexplored
09	Unexplored
0a	Unexplored
⋮	Unexplored

```
+00    0x55,
+01    0x48, 0x89, 0xe5, 0x48, 0x83, 0xec, 0x10,
+08    0xc7, 0x45, 0xfc, 0x00, 0x00, 0x00, 0x00, 0x89,
+10    0x7d, 0xf8, 0x48, 0x89, 0x75, 0xf0, 0x8b, 0x7d,
+18    0xf8, 0x48, 0x8b, 0x75, 0xf0, 0xe8, 0xcc, 0xcc,
+20    0x02, 0x00, 0x48, 0x83, 0xc4, 0x10, 0x5d, 0xc3,
+28    0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90
```

Adresse	Type
00	Code
01	Unexplored
02	Unexplored
03	Unexplored
04	Unexplored
05	Unexplored
06	Unexplored
07	Unexplored
08	Unexplored
09	Unexplored
0a	Unexplored
⋮	Unexplored

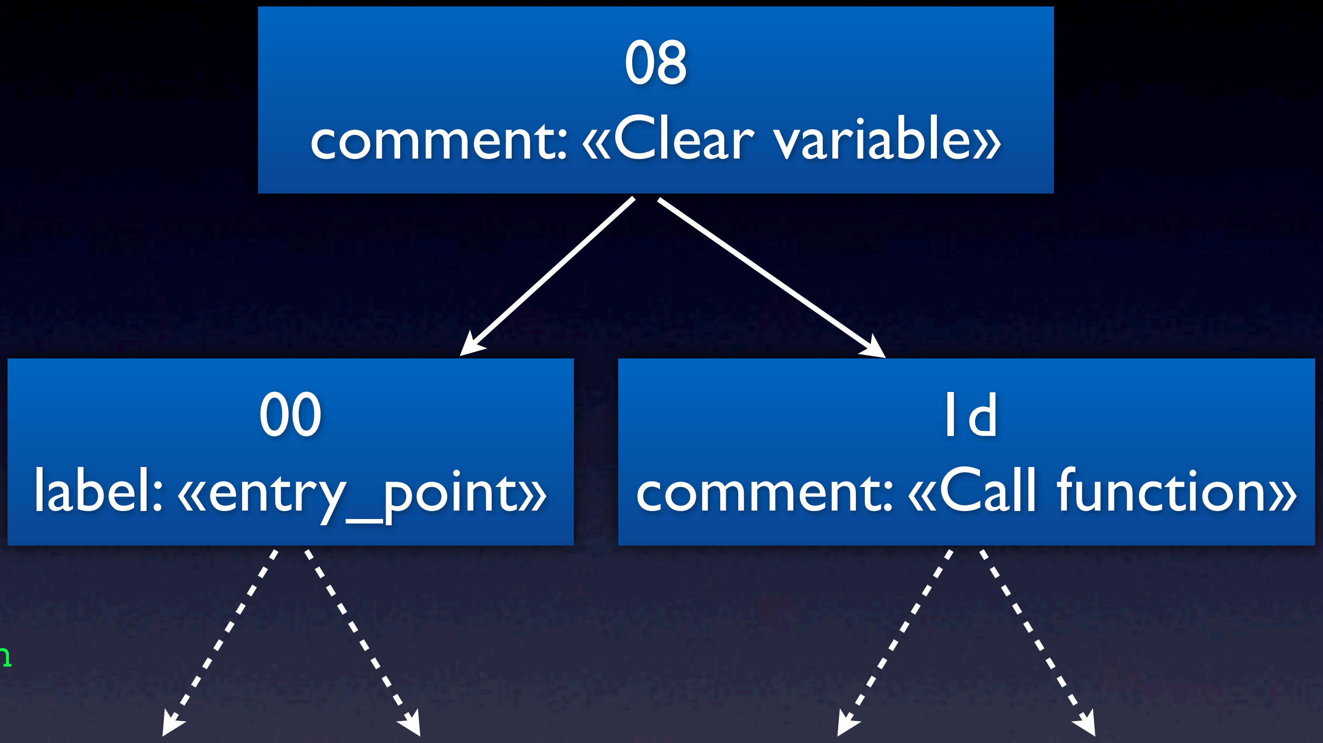
```
+00    0x55,
+01    0x48, 0x89, 0xe5,
+04    0x48, 0x83, 0xec, 0x10,
+08    0xc7, 0x45, 0xfc, 0x00, 0x00, 0x00, 0x00, 0x89,
+10    0x7d, 0xf8, 0x48, 0x89, 0x75, 0xf0, 0x8b, 0x7d,
+18    0xf8, 0x48, 0x8b, 0x75, 0xf0, 0xe8, 0xcc, 0xcc,
+20    0x02, 0x00, 0x48, 0x83, 0xc4, 0x10, 0x5d, 0xc3,
+28    0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90
```

Adresse	Type
00	Code
01	Code
02	Next
03	Next
04	Unexplored
05	Unexplored
06	Unexplored
07	Unexplored
08	Unexplored
09	Unexplored
0a	Unexplored
⋮	Unexplored

```
+00   0x55,
+01   0x48, 0x89, 0xe5,
+04   0x48, 0x83, 0xec, 0x10,
+08   0xc7, 0x45, 0xfc, 0x00, 0x00, 0x00, 0x00,
+0f   0x89, 0x7d, 0xf8,
+12   0x48, 0x89, 0x75, 0xf0,
+16   0x8b, 0x7d, 0xf8,
+19   0x48, 0x8b, 0x75, 0xf0,
+1d   0xe8, 0xcc, 0xcc, 0x02, 0x00,
+22   0x48, 0x83, 0xc4, 0x10,
+26   0x5d,
+27   0xc3
+28   0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90
```

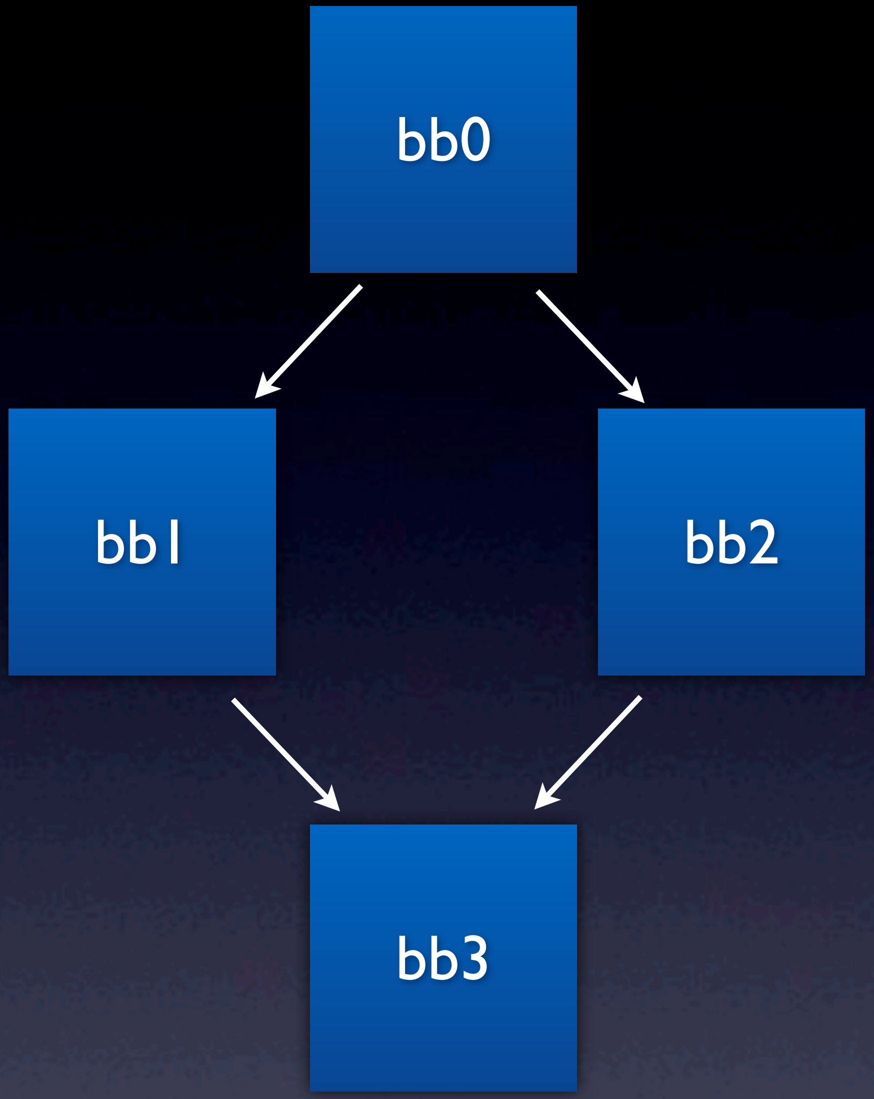
Adresse	Type
00	Code
01	Code
02	Next
03	Next
04	Code
05	Next
06	Next
07	Next
08	Code
09	Next
0a	Next
⋮	Next

```
entry_point:
+00   0x55,
+01   0x48, 0x89, 0xe5,
+04   0x48, 0x83, 0xec, 0x10,
      // Clear variable
+08   0xc7, 0x45, 0xfc, 0x00, 0x00, 0x00, 0x00,
+0f   0x89, 0x7d, 0xf8,
+12   0x48, 0x89, 0x75, 0xf0,
+16   0x8b, 0x7d, 0xf8,
+19   0x48, 0x8b, 0x75, 0xf0,
+1d   0xe8, 0xcc, 0xcc, 0x02, 0x00,   // Call function
+22   0x48, 0x83, 0xc4, 0x10,
+26   0x5d,
+27   0xc3
+28   0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90, 0x90
```



```
                 entry_point:
+00 55                   push       rbp
+01 4889E5               mov        rbp, rsp
+04 4883EC10             sub        rsp, 0x10
                         // Clear variable
+08 C745FC00000000       mov        dword [ss:rbp+0xfffffffc], 0x0
+0f 897DF8               mov        dword [ss:rbp+0xfffffff8], edi
+12 488975F0             mov        qword [ss:rbp+0xfffffff0], rsi
+16 8B7DF8               mov        edi, dword [ss:rbp+0xfffffff8]
+19 488B75F0             mov        rsi, qword [ss:rbp+0xfffffff0]
+1d E8CCCC0200           call       0x2dcee          // Call function
+22 4883C410             add        rsp, 0x10
+26 5D                   pop        rbp
+27 C3                   ret
```

```
; Basic Block Input Regs: rax rdi -  Killed Regs: rbx rsi
   methImpl_AppDelegate_check:
        push       rbp
        mov        rbp, rsp
        push       rbx
        push       rax
        mov        rbx, rdi
        mov        rsi, qword [0x10004a390]
        call       qword [ds:0x100042080]
        test       rax, rax
        jne        0x10000220d
; Basic Block Input Regs: rax -  Killed Regs: rax
        xor        al, al
        jmp        0x100002220
; Basic Block Input Regs: rax rbx -  Killed Regs: rdx rsi rdi
        mov        rsi, qword [0x10004a3a8]
        mov        rdi, rbx
        mov        rdx, rax
        call       qword [0x100042080]
; Basic Block Input Regs: rax -  Killed Regs: rax rbx rsp rbp
        movsx      eax, al
        add        rsp, 0x8
        pop        rbx
        pop        rbp
        ret
```



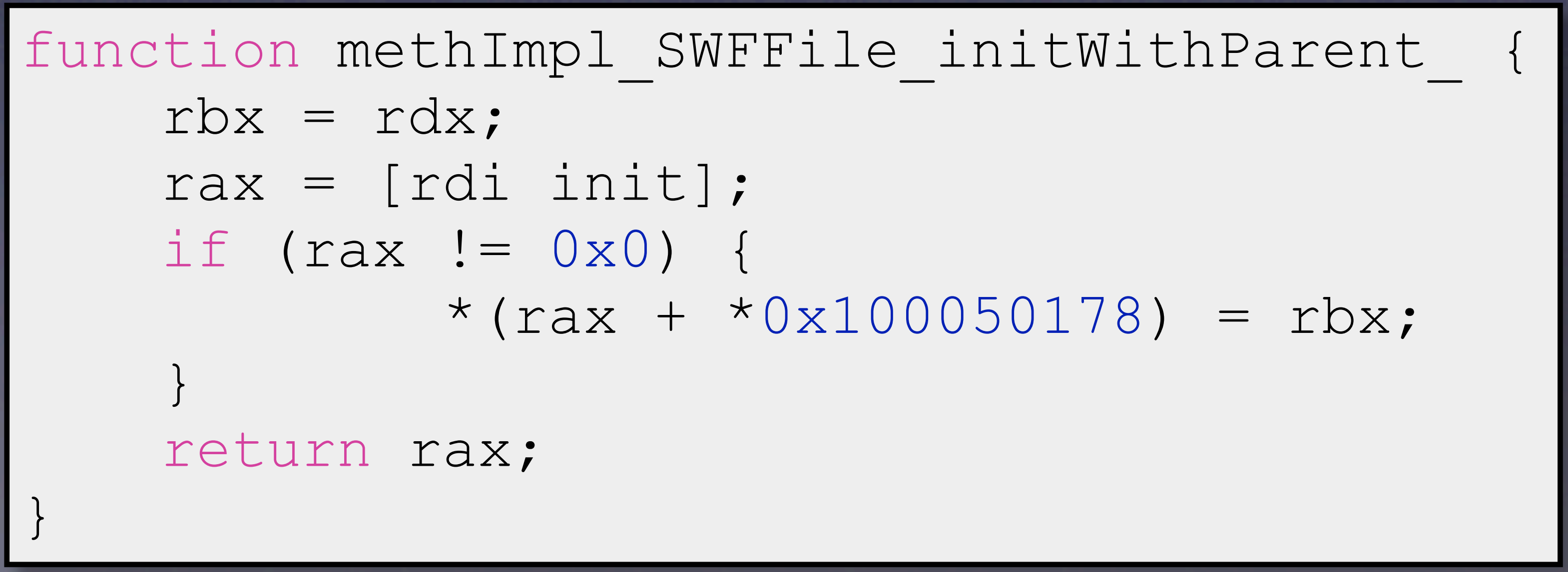
```
methImpl_AppDelegate_check:
     push       rbp
     mov        rbp, rsp
     push       rbx
     push       rax
     mov        rbx, rdi
     mov        rsi, qword [0x10004a390]          // @selector(registrationData)
     call       qword [ds:0x100042080]            // objc_msgSend
     test       rax, rax
     jne        0x10000220d

     xor        al, al
     jmp        0x100002220

     mov        rsi, qword [0x10004a3a8]          // @selector(checkRegistrationLicense:)
     mov        rdi, rbx
     mov        rdx, rax
     call       qword [0x100042080]               // objc_msgSend

     movsx      eax, al
     add        rsp, 0x8
     pop        rbx
     pop        rbp
     ret
```

```
dec        eax
cmp        eax, 11
ja         0x10000bde0

lea        rcx, qword [ds:0x10000be98] // Jump table
movsxd     rax, dword [ds:rcx+rax*4]
add        rax, rcx
jmp        rax            // Switch statement with 12 cases
```

Décompilateur

```
================ B E G I N   O F   P R O C E D U R E ================

                                       ; Basic Block Input Regs: rax rdx -  Killed Regs: rbx rsi
                                            methImpl_SWFFile_initWithParent_:
00000001000094c4 55                              push       rbp
00000001000094c5 4889E5                          mov        rbp, rsp
00000001000094c8 53                              push       rbx
00000001000094c9 50                              push       rax
00000001000094ca 4889D3                          mov        rbx, rdx
00000001000094cd 488B35E40F0400                  mov        rsi, qword [ds:objc_sel_init] ; @selector(init)
00000001000094d4 FF15A68B0300                    call       qword [ds:imp___got__objc_msgSend]
00000001000094da 4885C0                          test       rax, rax
00000001000094dd 740B                            je         0x1000094ea
                                       ; Basic Block Input Regs: rbx -  Killed Regs: rax rcx
00000001000094df 488B0D926C0400                  mov        rcx, qword [ds:0x100050178]
00000001000094e6 48891C08                        mov        qword [ds:rax+rcx], rbx
                                       ; Basic Block Input Regs: <nothing> -  Killed Regs: rbx rsp rbp
00000001000094ea 4883C408                        add        rsp, 0x8                    ; XREF=0x1000094dd
00000001000094ee 5B                              pop        rbx
00000001000094ef 5D                              pop        rbp
00000001000094f0 C3                              ret
                            ; endp
```

```
================ B E G I N   O F   P R O C E D U R E ================


                                       ; Basic Block Input Regs: rax rdx -  Killed Regs: rbx rsi
                                          methImpl_SWFFile_initWithParent_:
00000001000094c4 55                            push       rbp
00000001000094c5 4889E5                        mov        rbp, rsp
00000001000094c8 53                            push       rbx
00000001000094c9 50                            push       rax
00000001000094ca 4889D3                        mov        rbx, rdx
00000001000094cd 488B35E40F0400                mov        rsi, qword [ds:objc_sel_init] ; @selector(init)
00000001000094d4 FF15A68B0300                  call       qword [ds:imp___got__objc_msgSend]
00000001000094da 4885C0                        test       rax, rax
00000001000094dd 740B                          je         0x1000094ea
                                       ; Basic Block Input Regs: rbx -  Killed Regs: rax rcx
00000001000094df 488B0D926C0400                mov        rcx, qword [ds:0x100050178]
00000001000094e6 48891C08                      mov        qword [ds:rax+rcx], rbx
                                       ; Basic Block Input Regs: <nothing> -  Killed Regs: rbx rsp rbp
00000001000094ea 4883C408                      add        rsp, 0x8                    ; XREF=0x1000094dd
00000001000094ee 5B                            pop        rbx
00000001000094ef 5D                            pop        rbp
00000001000094f0 C3                            ret
                            ; endp
```



```
function methImpl_SWFFile_initWithParent_ {
    rbx = rdx;
    rax = [rdi init];
    if (rax != 0x0) {
            *(rax + *0x100050178) = rbx;
    }
    return rax;
}
```

```
mov         r15, rdi
mov         r12, qword [ds:0x1000501a0]
add         r12, r15
mov         r13, qword [ds:0x100050198]
add         r13, r15
xor         ebx, ebx
lea         r14, qword [0x10004b030]

mov         rdi, qword [ds:r13+rbx*8+0x0]
test        rdi, rdi
je          0x100009542
```

```
mov         r15, rdi
mov         r12, qword [ds:0x1000501a0]
add         r12, r15
mov         r13, qword [ds:0x100050198]
add         r13, r15
xor         ebx, ebx
lea         r14, qword [0x10004b030]

mov         rdi, qword [ds:r13+rbx*8+0x0]
test        rdi, rdi
je          0x100009542
```

```
r15 = rdi
r12 = * (int *)0x1000501a0
r12 = r12 + r15
r13 = * (int *)0x100050198
r13 = r13 + r15
ebx = ebx ^ ebx
r14 = 0x10004b030

rdi = * (int *)(r13 + rbx * 8)
CMP(rdi & rdi, 0)
if (EFLAGS & E) goto 0x100009542
```

```
def r15       use rdi
def r12
def r12       use r12, r15
def r13
def r13       use r13, r15
def ebx       use ebx
def r14

def rdi       use r13, rbx
def Z         use rdi
              use Z
```

```
r15 = rdi
r12 = * (int *)0x1000501a0
r12 = r12 + r15
r13 = * (int *)0x100050198
r13 = r13 + r15
ebx = ebx ^ ebx
r14 = 0x10004b030

rdi = * (int *)(r13 + rbx * 8)
CMP(rdi & rdi, 0)
if (EFLAGS & Z) goto 0x100009542
```

```
def r15      use rdi        r15 = rdi                           0
def r12                     r12 = * (int *)0x1000501a0          1
def r12      use r12, r15   r12 = r12 + r15                     2  r12 instr 1, r15 instr 0
def r13                     r13 = * (int *)0x100050198          3
def r13      use r13, r15   r13 = r13 + r15                     4  r13 instr 3, r15 instr 0
def ebx      use ebx        ebx = ebx ^ ebx                     5
def r14                     r14 = 0x10004b030                   6

def rdi      use r13, rbx   rdi = * (int *)(r13 + rbx * 8)      7  r13 inst 4, rbx instr 8
def Z        use rdi        CMP(rdi & rdi, 0)                   8  rdi instr 7
             use Z          if (EFLAGS & Z) goto 0x100009542    9  Z instr 8
```

```
def r15        use rdi
def r12
def r12        use r12, r15
def r13
def r13        use r13, r15
def ebx        use ebx
def r14

def rdi        use r13, rbx
def Z          use rdi
```

```
r15 = rdi
r12 = * (int *)0x1000501a0
r12 = r12 + r15
r13 = * (int *)0x100050198
r13 = r13 + r15
ebx = ebx ^ ebx
r14 = 0x10004b030

rdi = * (int *)(r13 + rbx * 8)
if (rdi == 0) goto 0x100009542
```

```
0
1
2  r12 instr 1, r15 instr 0
3
4  r13 instr 3, r15 instr 0
5
6

7  r13 inst 4, rbx instr 8
8  rdi instr 7
```

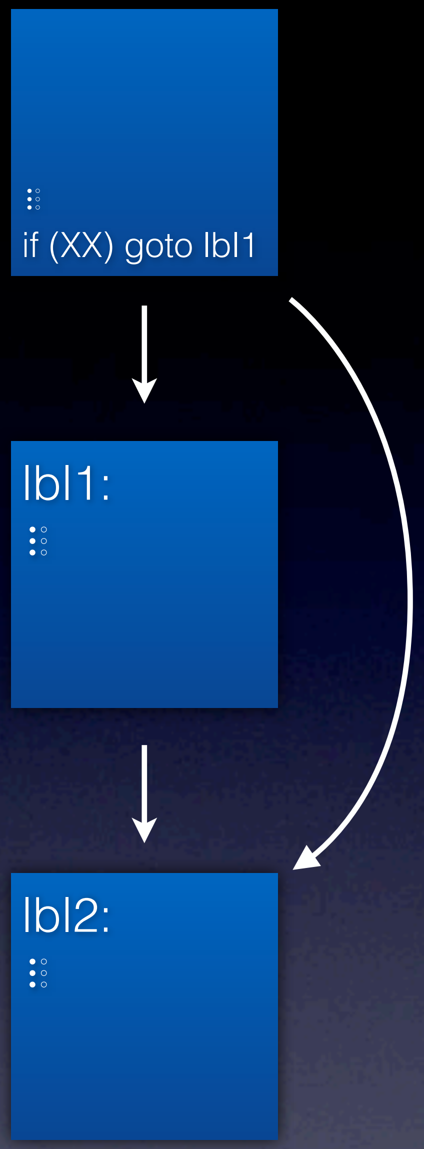
```
r12 = * (int *)0x1000501a0 + rdi
r13 = * (int *)0x100050198 + r15

ebx = 0
r14 = 0x10004b030

if (* (int *)(r13 + rbx * 8) == 0) goto 0x100009542
```

Intel 32bits

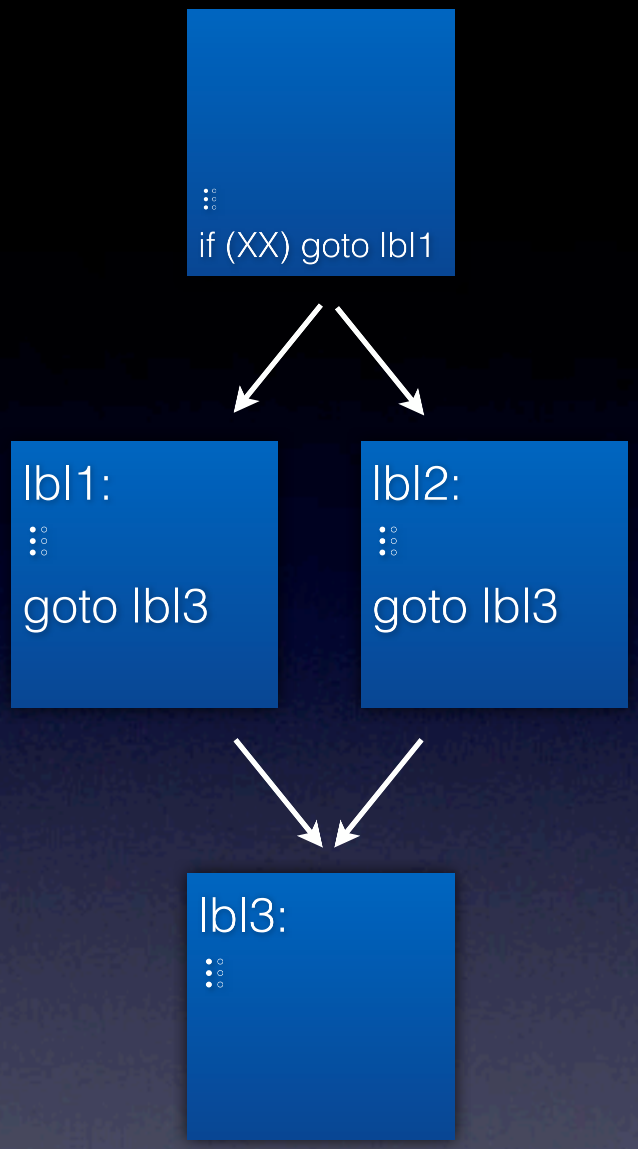
```
push eax
push ebx
mov  ecx, eax
add  ecx, edx
push ecx
call 0xc478f
```

Intel 64bits

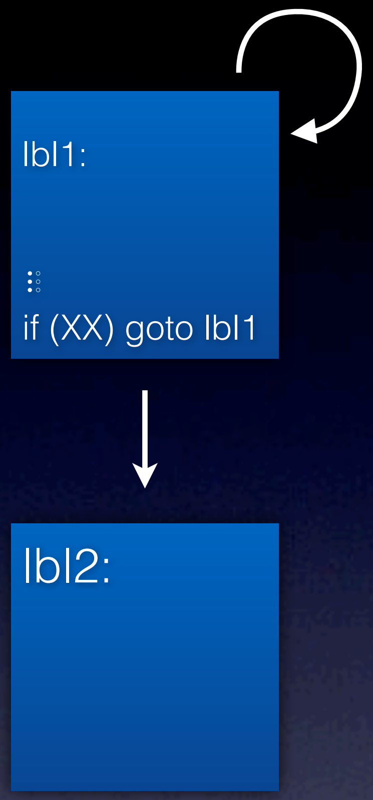
```
mov rdi, 0x1
xor rsi, rsi
call 0x10001276
```



```
if (cond) {
    …
}
```



```
if (cond) {
    …
}
else {
    …
}
```



```
do{
    …
} while (cond);
```

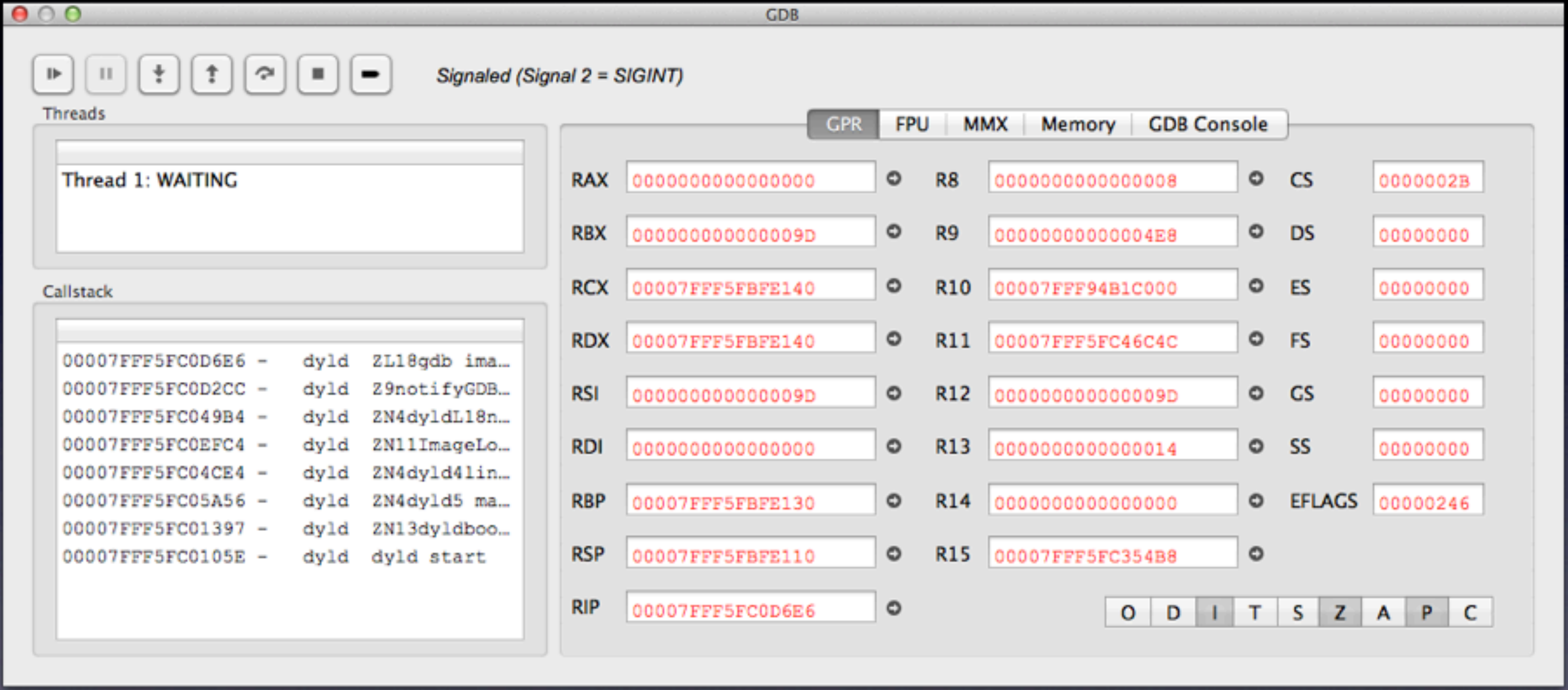
```
rax = objc_msgSend(rdi, 0x10000a76e, rdx, rcx);
rax = objc_msgSend(rdi, 0x10000a76e, rdx, rcx);
```

↓

```
rax = [rdi insertObject:rdx atIndex:rcx];
```

Debugger

- Serveur GDB
  - debuggage à distance,
  - architecture différente (futur)
- Interface simple pour l’intégration d’autres debuggers (futur)



Signaled (Signal 2 = SIGINT)

Threads

Thread 1: WAITING

Callstack

```
00007FFF5FC0D6E6 -   dyld  ZL18gdb ima…
00007FFF5FC0D2CC -   dyld  Z9notifyGDB…
00007FFF5FC049B4 -   dyld  ZN4dyldL18n…
00007FFF5FC0EFC4 -   dyld  ZN11ImageLo…
00007FFF5FC04CE4 -   dyld  ZN4dyld4lin…
00007FFF5FC05A56 -   dyld  ZN4dyld5 ma…
00007FFF5FC01397 -   dyld  ZN13dyldboo…
00007FFF5FC0105E -   dyld  dyld start
```

RAX	0000000000000000	R8	0000000000000008	CS	0000002B
RBX	000000000000009D	R9	00000000000004E8	DS	00000000
RCX	00007FFF5FBFE140	R10	00007FFF94B1C000	ES	00000000
RDX	00007FFF5FBFE140	R11	00007FFF5FC46C4C	FS	00000000
RSI	000000000000009D	R12	000000000000009D	GS	00000000
RDI	0000000000000000	R13	0000000000000014	SS	00000000
RBP	00007FFF5FBFE130	R14	0000000000000000	EFLAGS	00000246
RSP	00007FFF5FBFE110	R15	00007FFF5FC354B8		
RIP	00007FFF5FC0D6E6				

La suite...

- plugins
    - autres types de debugger,
    - autres processeurs,
    - fonctionnalités...
- travail collaboratif
    - CrowdRE
- propagation de type
- amélioration de l’interface
    - système de tag,
- ...

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