Abex crakme

SCP 20학번 박준형

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목차 table of contents

Crackme 란?

Part 1 Crackme란?

- Crackme란 프로그램은 말그대로 크랙 연습 목적으로 작성되어 공개된 프로그램입니다.
- 리버싱을 처음 시작할 때 간단한 crackme를 분석해보면 실제로 디버거와 디스어셈 코드에 익숙해질 수 있습니다.

기본적인 Ollydbg 명령어

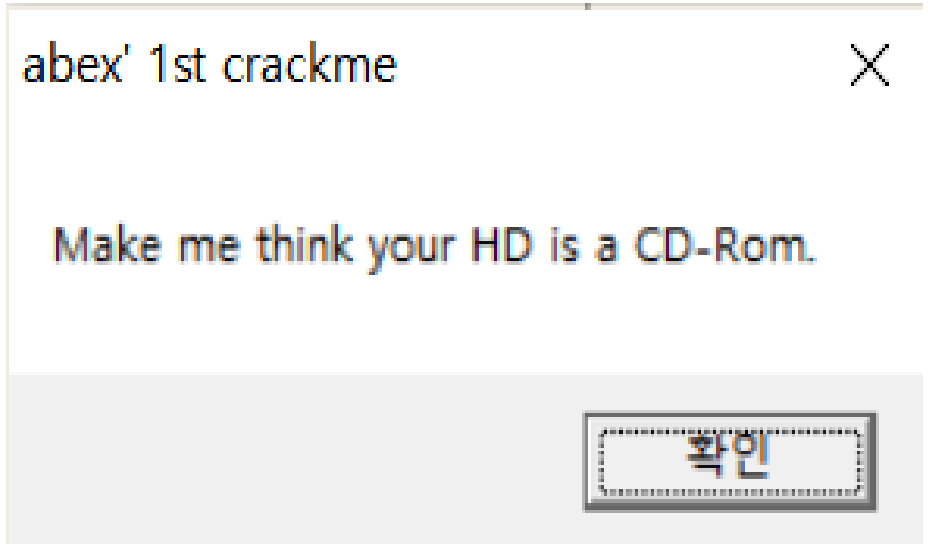
Part 2 기본적인 Ollydbg 명령어

명령어	설명
PUSH	스택에 값을 입력
CALL	지정된 주소의 함수를 호출
INC	값을 1 증가
DEC	값을 1 감소
JMP	지정된 주소로 점프
CMP	주어진 두개의 피연산자 비교
JE	조건 분기(Jump if equal)

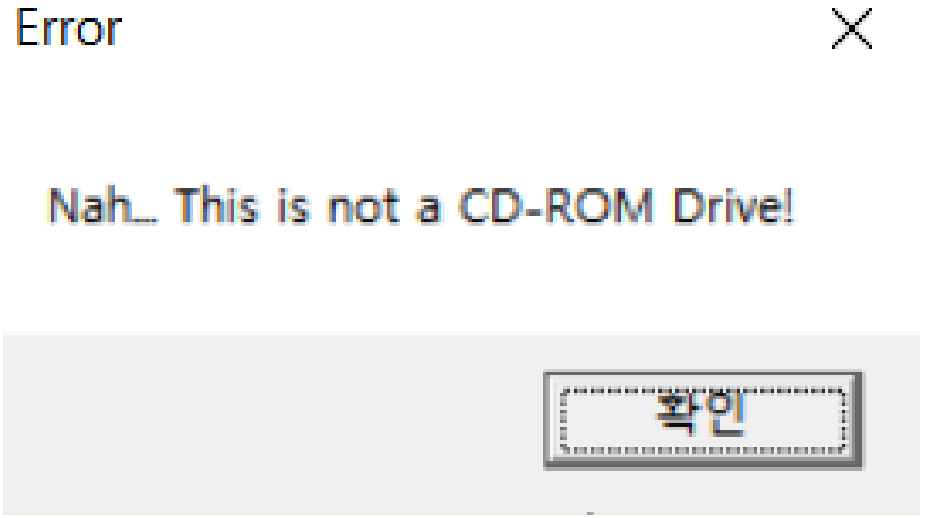
abex' crackme 실습

Part 3 abex' crackme 실습

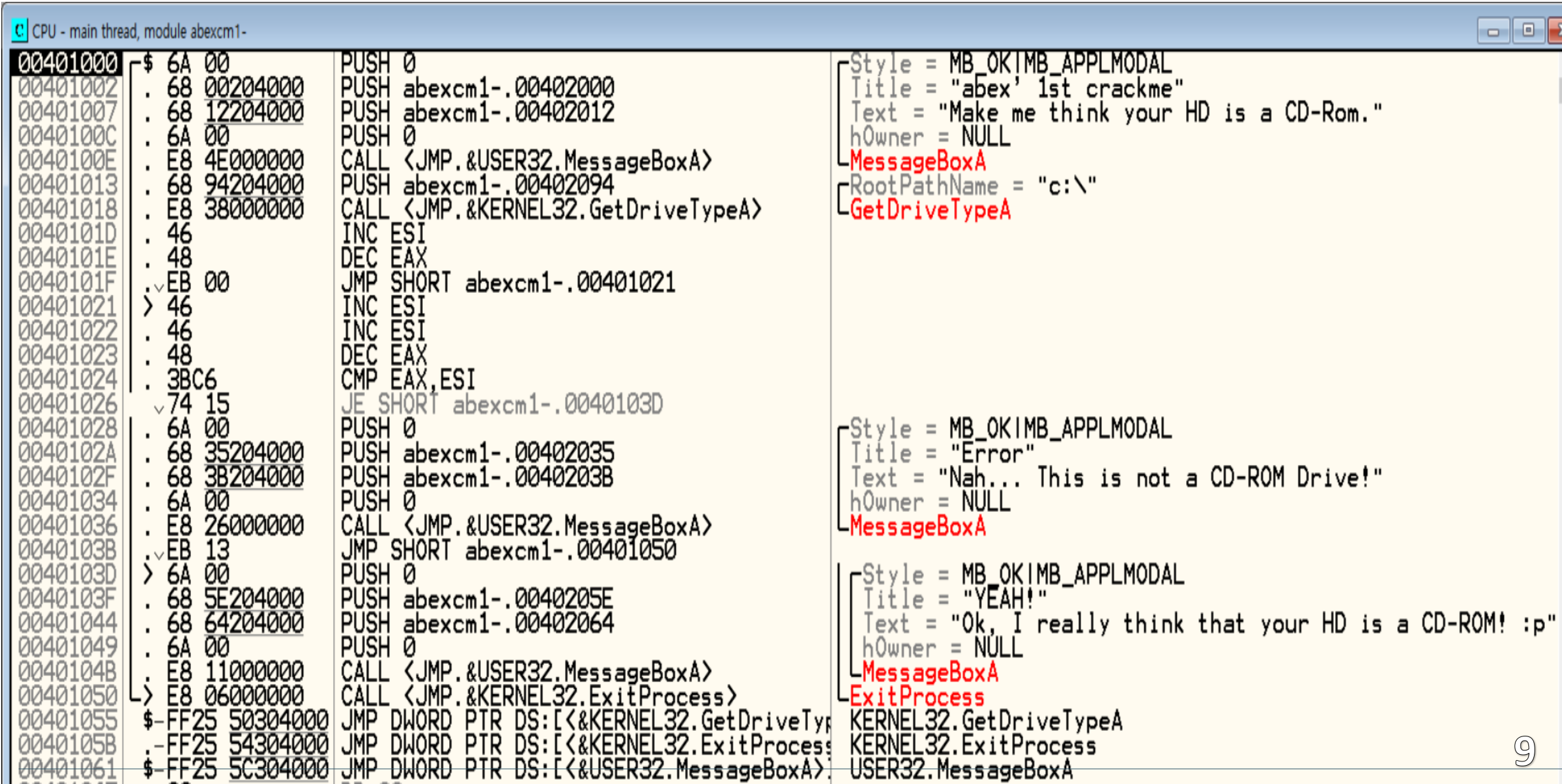
Problem



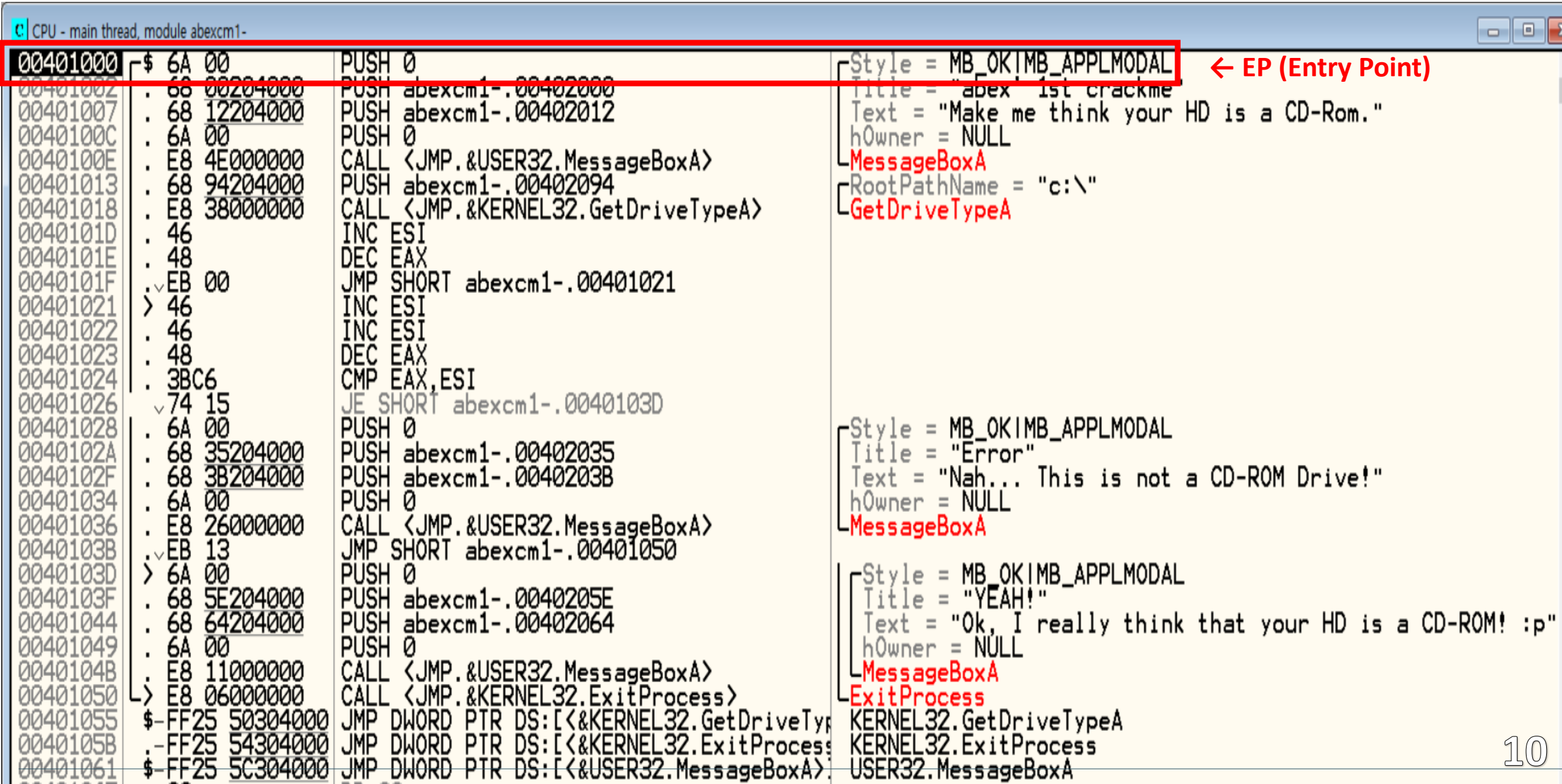
Result



Part 3 abex' crackme 실습

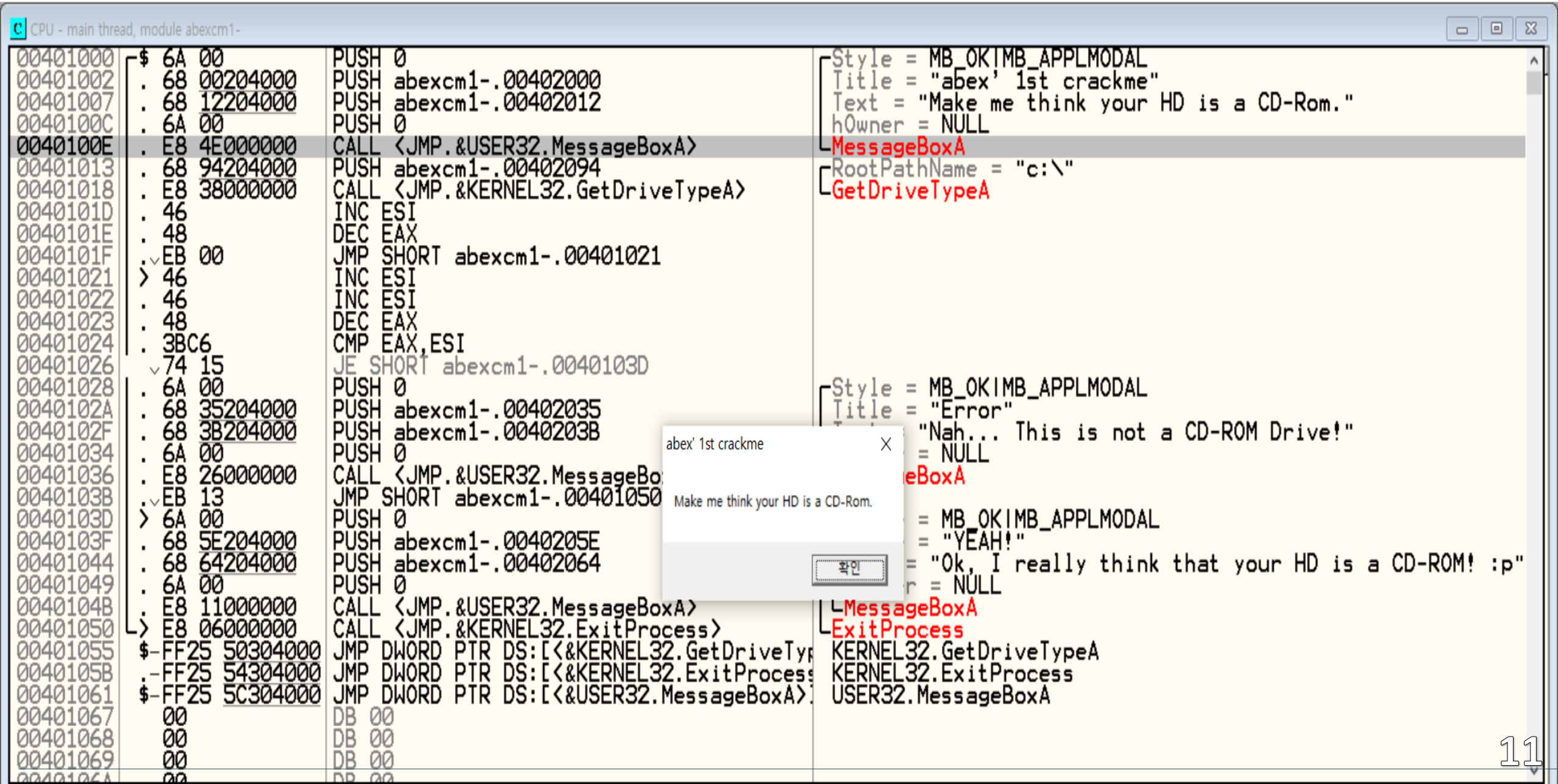


Part 3 abex' crackme 실습

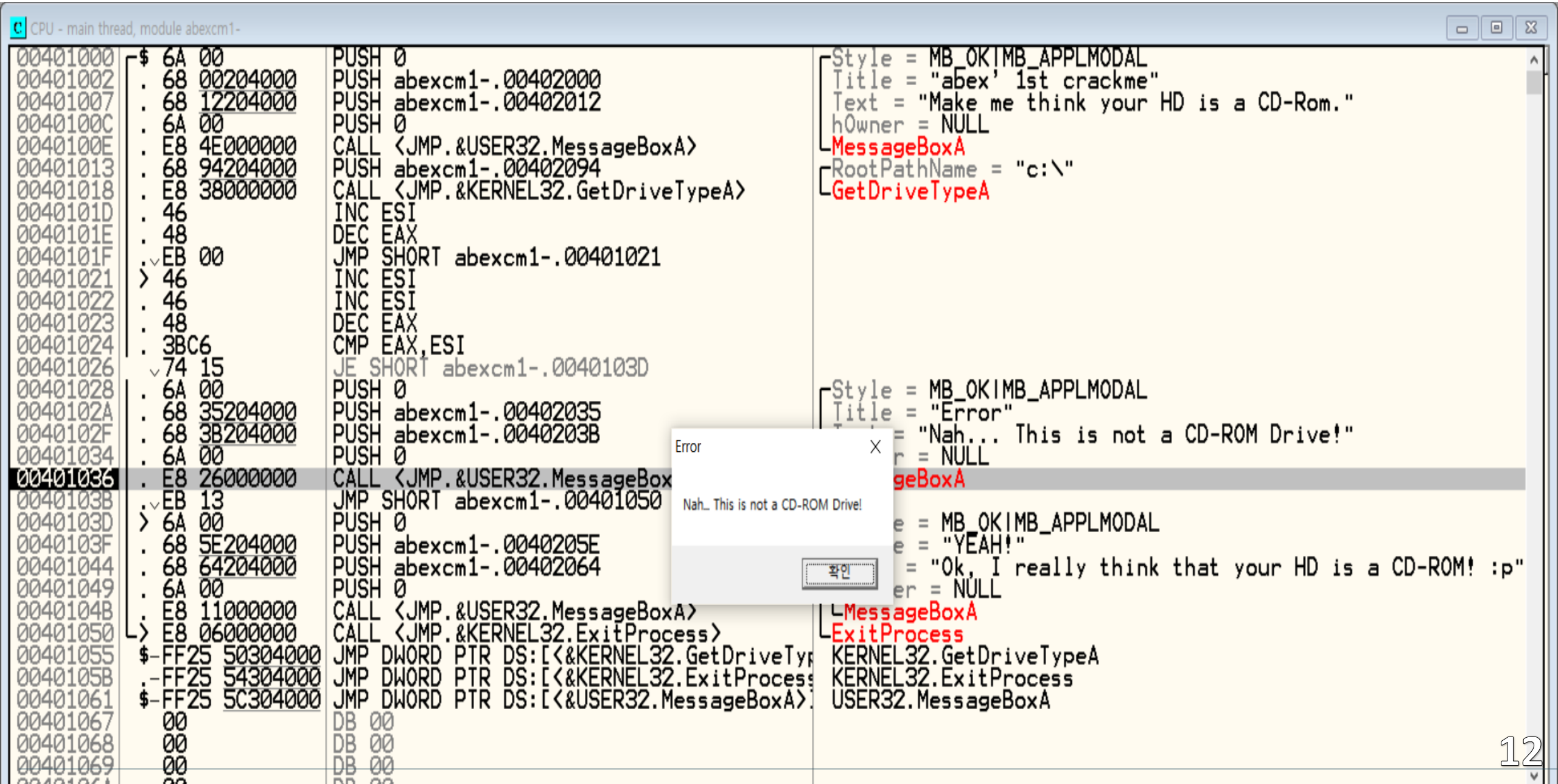


← EP (Entry Point)

Part 3 abex' crackme 실습



Part 3 abex' crackme 실습



Part 3 abex' crackme 실습

```
00401013  . 68 94204000    PUSH abexcm1-.00402094          RootPathName = "c:\"
00401018  . E8 38000000    CALL <JMP.&KERNEL32.GetDriveTypeA>  GetDriveTypeA
0040101D  . 46             INC ESI
0040101E  . 48             DEC EAX
0040101F  .v EB 00         JMP SHORT abexcm1-.00401021
00401021  > 46             INC ESI
00401022  . 46             INC ESI
00401023  . 48             DEC EAX
00401024  . 3BC6           CMP EAX,ESI
00401026  .v 74 15         JE SHORT abexcm1-.0040103D
00401028  . 6A 00          PUSH 0                          Style = MB_OK|MB_APPLMODAL
0040102A  . 68 35204000    PUSH abexcm1-.00402035          Title = "Error"
0040102F  . 68 3B204000    PUSH abexcm1-.0040203B          Text = "Nah... This is not a CD-ROM Drive!"
00401034  . 6A 00          PUSH 0                          hOwner = NULL
00401036  . E8 26000000    CALL <JMP.&USER32.MessageBoxA>  MessageBoxA
0040103B  .v EB 13         JMP SHORT abexcm1-.00401050
0040103D  > 6A 00          PUSH 0                          Style = MB_OK|MB_APPLMODAL
0040103F  . 68 5E204000    PUSH abexcm1-.0040205E          Title = "YEAH!"
00401044  . 68 64204000    PUSH abexcm1-.00402064          Text = "Ok, I really think that your HD is a CD-ROM! :p"
00401049  . 6A 00          PUSH 0                          hOwner = NULL
0040104B  . E8 11000000    CALL <JMP.&USER32.MessageBoxA>  MessageBoxA
00401050  > E8 06000000    CALL <JMP.&KERNEL32.ExitProcess>  ExitProcess
00401055  $-FF25 50304000  JMP DWORD PTR DS:[<&KERNEL32.GetDriveTyp  KERNEL32.GetDriveTypeA
0040105B  .-FF25 54304000  JMP DWORD PTR DS:[<&KERNEL32.ExitProces  KERNEL32.ExitProcess
00401061  $-FF25 5C304000  JMP DWORD PTR DS:[<&USER32.MessageBoxA>  USER32.MessageBoxA
```

Part 3 abex' crackme 실습

```
00401000  ┌$ 6A 00          PUSH 0
00401002  │. 68 00204000     PUSH abexcm1.00402000
00401007  │. 68 12204000     PUSH abexcm1.00402012
0040100C  │. 6A 00          PUSH 0
0040100E  │. E8 4E000000    CALL <JMP.&USER32.MessageBoxA>
00401013  │. 68 94204000     PUSH abexcm1.00402094
00401018  │. E8 38000000    CALL <JMP.&KERNEL32.GetDriveTypeA>
0040101D  │. 46             INC ESI
0040101E  │. 48             DEC EAX
0040101F  │  EB 00          JMP SHORT abexcm1.00401021
00401021  │> 46             INC ESI
00401022  │. 46             INC ESI
00401023  │. 48             DEC EAX
00401024  │. 3BC6           CMP EAX,ESI
00401026  │. 74 15          JE SHORT abexcm1.0040103D
00401028  │. 6A 00          PUSH 0
0040102A  │. 68 35204000    PUSH abexcm1.00402035
0040102F  │. 68 3B204000    PUSH abexcm1.0040203B
00401034  │. 6A 00          PUSH 0
00401036  │. E8 26000000    CALL <JMP.&USER32.MessageBoxA>
0040103B  │. EB 13          JMP SHORT abexcm1.00401050
0040103D  │> 6A 00          PUSH 0
0040103F  │. 68 5E204000    PUSH abexcm1.0040205E
00401044  │. 68 64204000    PUSH abexcm1.00402064
00401049  │. 6A 00          PUSH 0
0040104B  │. E8 11000000    CALL <JMP.&USER32.MessageBoxA>
00401050  └> E8 06000000    CALL <JMP.&KERNEL32.ExitProcess>
00401055   $-FF25 50304000  JMP DWORD PTR DS:[<&KERNEL32.GetDriveTyp
0040105B   .-FF25 54304000  JMP DWORD PTR DS:[<&KERNEL32.ExitProces
00401061   $-FF25 5C304000  JMP DWORD PTR DS:[<&USER32.MessageBoxA>]
00401067     00             DB 00
00401068     00             DB 00
00401069     00             DB 00
```

> 이 두 명령어를 실행키지 않아야함

```
Registers (FPU)
EAX 00000003
ECX 004F0000
EDX 004F0000
EBX 003EE000
ESP 0019FF74
EBP 0019FF80
ESI 00000000
EDI 00401000 abexcm1.<ModuleEntryPoint>

EIP 0040101D abexcm1.0040101D

C 0  ES 002B 32bit 0(FFFFFFFF)
P 1  CS 0023 32bit 0(FFFFFFFF)
A 0  SS 002B 32bit 0(FFFFFFFF)
Z 1  DS 002B 32bit 0(FFFFFFFF)
S 0  FS 0053 32bit 3F1000(FFF)
T 0  GS 002B 32bit 0(FFFFFFFF)
D 0
O 0  LastErr ERROR_SUCCESS (00000000)

EFL 00000246 (NO,NB,E,BE,NS,PE,GE,LE)

ST0 empty 0.0
ST1 empty 0.0
ST2 empty 0.0
ST3 empty 0.0
ST4 empty 1.0000000000000000000
ST5 empty 13.0000000000000000000
ST6 empty 10.307692307692308376
ST7 empty -1.0000000000000000000
               3 2 1 0      E S P U O Z D I
FST 4020  Cond 1 0 0 0  Err 0 0 1 0 0 0 0 0  (EQ)
FCW 027F  Prec NEAR,53  Mask    1 1 1 1 1 1
```

Part 3 abex' crackme 실습

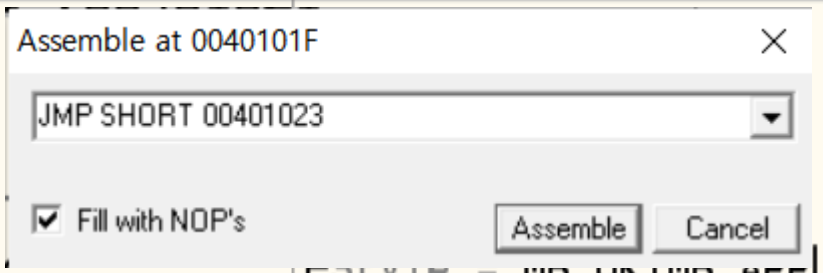
```
00401000  ┌$ 6A 00          PUSH 0
00401002  │. 68 00204000    PUSH abexcm1.00402000
00401007  │. 68 12204000    PUSH abexcm1.00402012
0040100C  │. 6A 00          PUSH 0
0040100E  │. E8 4E000000    CALL <JMP.&USER32.MessageBoxA>
00401013  │. 68 94204000    PUSH abexcm1.00402094
00401018  │. E8 38000000    CALL <JMP.&KERNEL32.GetDriveTypeA>
0040101D  │. 46             INC ESI
0040101E  │. 48             DEC EAX
0040101F  │  EB 00          JMP SHORT abexcm1.00401021   ← 수정
00401021  │> 46             INC ESI
00401022  │. 46             INC ESI
00401023  │. 48             DEC EAX
00401024  │. 3BC6           CMP EAX,ESI
00401026  │. 74 15          JE SHORT abexcm1.0040103D
00401028  │. 6A 00          PUSH 0
0040102A  │. 68 35204000    PUSH abexcm1.00402035
0040102F  │. 68 3B204000    PUSH abexcm1.0040203B
00401034  │. 6A 00          PUSH 0
00401036  │. E8 26000000    CALL <JMP.&USER32.MessageBoxA>
0040103B  │. EB 13          JMP SHORT abexcm1.00401050
0040103D  │> 6A 00          PUSH 0
0040103F  │. 68 5E204000    PUSH abexcm1.0040205E
00401044  │. 68 64204000    PUSH abexcm1.00402064
00401049  │. 6A 00          PUSH 0
0040104B  │. E8 11000000    CALL <JMP.&USER32.MessageBoxA>
00401050  └> E8 06000000    CALL <JMP.&KERNEL32.ExitProcess>
00401055   $-FF25 50304000  JMP DWORD PTR DS:[<&KERNEL32.GetDriveTyp
0040105B   .-FF25 54304000  JMP DWORD PTR DS:[<&KERNEL32.ExitProces
00401061   $-FF25 5C304000  JMP DWORD PTR DS:[<&USER32.MessageBoxA>]
00401067     00             DB 00
00401068     00             DB 00
00401069     00             DB 00
```

```
Registers (FPU)
EAX 00000003
ECX 004F0000
EDX 004F0000
EBX 003EE000
ESP 0019FF74
EBP 0019FF80
ESI 00000000
EDI 00401000 abexcm1.<ModuleEntryPoint>

EIP 0040101D abexcm1.0040101D

C 0  ES 002B 32bit 0(FFFFFFFF)
P 1  CS 0023 32bit 0(FFFFFFFF)
A 0  SS 002B 32bit 0(FFFFFFFF)
Z 1  DS 002B 32bit 0(FFFFFFFF)
S 0  FS 0053 32bit 3F1000(FFF)
T 0  GS 002B 32bit 0(FFFFFFFF)
D 0
O 0  LastErr ERROR_SUCCESS (00000000)

EFL 00000246 (NO,NB,E,BE,NS,PE,GE,LE)

ST0 empty 0.0
ST1 empty 0.0
ST2 empty 0.0
ST3 empty 0.0
ST4 empty 1.0000000000000000000
ST5 empty 13.0000000000000000000
ST6 empty 10.307692307692308376
ST7 empty -1.0000000000000000000
               3 2 1 0      E S P U O Z D I
FST 4020  Cond 1 0 0 0  Err 0 0 1 0 0 0 0 0  (EQ)
FCW 027F  Prec NEAR,53  Mask    1 1 1 1 1 1
```

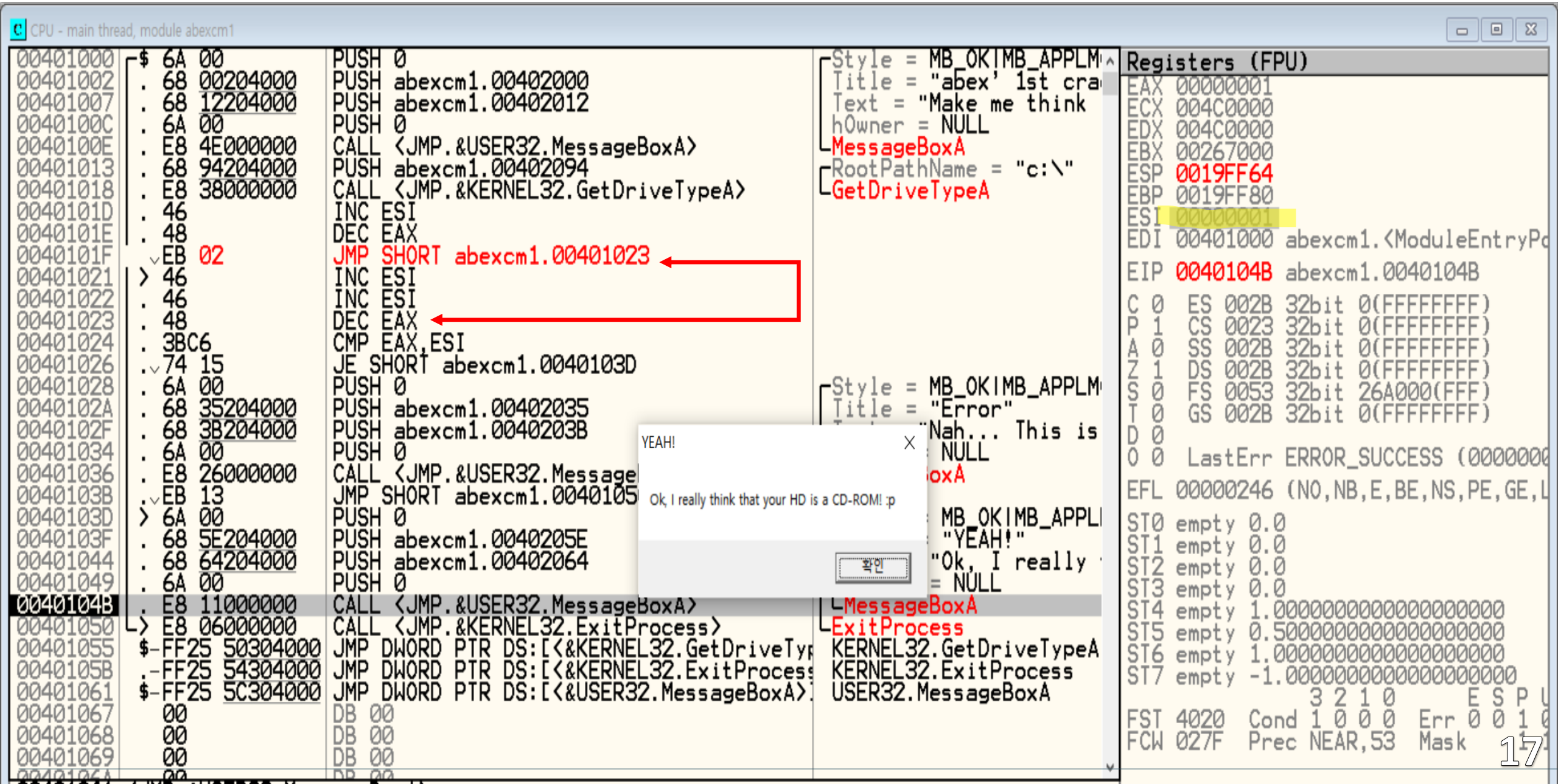
Part 3 abex' crackme 실습

```
0040100E  . E8 4E000000    CALL <JMP.&USER32.MessageBoxA>
00401013  . 68 94204000    PUSH abexcm1-.00402094
00401018  . E8 38000000    CALL <JMP.&KERNEL32.GetDriveTypeA>
0040101D  . 46             INC ESI
0040101E  . 48             DEC EAX
0040101F  .v EB 00         JMP SHORT abexcm1-.00401021
00401021  > 46             INC ESI
00401022  . 46             INC ESI
00401023  . 48             DEC EAX
00401024  . 3BC6           CMP EAX,ESI
00401026  .v 74 15         JE SHORT abexcm1-.0040103D
00401028  . 6A 00          PUSH 0
0040102A  . 68 35204000    PUSH abexcm1-.00402035
0040102F  . 68 3B204000    PUSH abexcm1-.0040203B
00401034  . 6A 00          PUSH 0
00401036  . E8 26000000    CALL <JMP.&USER32.MessageBoxA>
0040103B  .v EB 13         JMP SHORT abexcm1-.00401050
0040103D  > 6A 00          PUSH 0
0040103F  . 68 5E204000    PUSH abexcm1-.0040205E
00401044  . 68 64204000    PUSH abexcm1-.00402064
00401049  . 6A 00          PUSH 0
0040104B  . E8 11000000    CALL <JMP.&USER32.MessageBoxA>
00401050  L> E8 06000000    CALL <JMP.&KERNEL32.ExitProcess>
00401055  $-FF25 50304000  JMP DWORD PTR DS:[<&KERNEL32.GetDriveTyp
0040105B  .-FF25 54304000  JMP DWORD PTR DS:[<&KERNEL32.ExitProcess
00401061  $-FF25 5C304000  JMP DWORD PTR DS:[<&USER32.MessageBoxA>]

MessageBoxA
RootPathName = "c:\"
GetDriveTypeA
Style = MB_OK|MB_APPLMODAL
Title = "Error"
Text = "Nah... This is not a CD-ROM Dr
hOwner = NULL
MessageBoxA
Style = MB_OK|MB_APPLMODAL
Title = "YEAH!"
Text = "Ok, I really think that your
hOwner = NULL
MessageBoxA
ExitProcess
KERNEL32.GetDriveTypeA
KERNEL32.ExitProcess
USER32.MessageBoxA
```

00401021 → 00401023 으로 바꾸면됨



Part 3 abex' crackme 실습



Q&A