!heap failed in windbg. Invalid type information f

Posted by Alexei Tchernoraenko - 17 Mar 2011 - 16:32

Hello,
I'm trying to dump heap information from full dump memory file sitting on Windows Server 2003 SP2 x86.
Dump was created for 32-bit mixed (native/clr) application which was running on Windows Server 2003 SP2 x64 machine.
From the following windbg log I see that loaded ntdll.dll image is incorrect and does not correspond to ntdll.pdb symbols.
I have tried to specify the location to ntdll.dll from the target machine but windbg still shows that the module is loaded from the standard location (c:windowssystem32).

What did I do wrong? How to force windbg to load correct version of ntdll?

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Microsoft (R) Windows Debugger Version 6.11.0001.404 X86
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0:042> vertarget
Windows Server 2003 Version 3790 (Service Pack 2) MP (4 procs) Free x86 compatible
Product: Server, suite: TerminalServer SingleUserTS
kernel32.dll version: 5.2.3790.4480 (srv03_sp2_gdr.090321-1244)
Machine Name:
Debug session time: Wed Mar 16 16:36:10.000 2011 (GMT-5)
System Uptime: 17 days 10:34:26.068
Process Uptime: 1 days 15:19:14.000
  Kernel time: 0 days 1:24:01.000
  User time: 0 days 22:07:58.000

0:042> .sympath
Symbol search path is:
C:mscordacwksv2.0.50727.3615;C:__exe;SRV*CSymbols*http://referencesource.microsoft.com/symbol
s;SRV*c:Symbols*http://msdl.microsoft.com/download/symbols;SRV*C:Symbols*http://source.msdn.micr
osoft.com/symbols

0:042> .exepath
Executable image search path is: C:__exe;C:__targetWindowsSysWOW64;

0:042> .reload



0:042> .reload /u ntdll.dll
Unloaded ntdll.dll
0:042> .reload /v /f ntdll.dll
AddImage: C:WINDOWSsystem32ntdll.dll  // why is it still c:windowssystem32
 DllBase  = 7d600000
 Size     = 000f0000
```

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 Checksum = 000c371a
 TimeDateStamp = 4cc1831e

0:042> lm

7d600000 7d6f0000   ntdll      (pdb symbols)
c:symbolswntdll.pdb9ED8E09C6723448380648C4456726AEF2wntdll.pdb

0:042> !heap
*******************************************************************************
***    Your debugger is not using the correct symbols                       ***

***    Type referenced: ntdll!_HEAP_ENTRY                                   ***
*******************************************************************************
Invalid type information

0:042> lmi vm ntdll
start    end        module name
7d600000 7d6f0000   ntdll      (pdb symbols)          ntdll.dll
    Symbol file: c:symbolswntdll.pdb9ED8E09C6723448380648C4456726AEF2wntdll.pdb
    Image path: C:WINDOWSsystem32ntdll.dll
    Image name: ntdll.dll
    Timestamp:        Fri Oct 22 07:27:10 2010 (4CC1831E)
    CheckSum:         000C371A
    ImageSize:        000F0000
    File version:     5.2.3790.4789  // this is correct and correspond to target computer
    Product version:  5.2.3790.4789
    File flags:       0 (Mask 3F)
    File OS:          40004 NT Win32
    File type:        2.0 Dll
    File date:        00000000.00000000
    Translations:     0409.04b0
    CompanyName:      Microsoft Corporation
    ProductName:      MicrosoftR WindowsR Operating System
    InternalName:     ntdll.dll
    OriginalFilename: ntdll.dll
    ProductVersion:   5.2.3790.4789
    FileVersion:      5.2.3790.4789 (srv03_sp2_gdr.101019-0340)
    FileDescription:  NT Layer DLL
    LegalCopyright:   c Microsoft Corporation. All rights reserved.


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BR,
Alexei

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