

How To Exam Memory Dump File to Find the Cause of Blue Screen of Death

Even though we have a modern operating systems like Windows 7 and Windows 8, to be honest, the blue screen of death (BSOD) still happens from time to time. What's worse is that if you started seeing one and don't deal with it, you will probably see it happen to you more often later one. And believe me, it will wear you down to a point where you just want to kick or throw your machine out of the window.

But it's hard to troubleshoot and pinpoint the issue that's causing the BSOD. While we are accusing Microsoft for developing such a behavior when bad thing happens, we also should give a thumb up to Microsoft for having a feature setup in Windows that automatically generates a memory dump file during the BSOD. With some help from a memory dump analysis tool, we can pretty quickly find out what's cause behind your annoying BSOD.

One such tool is called **dumpchk**, a command-line utility you can use to verify and find out what's been collected during a system crash. It's part of Windows 7 or 8 debugging tools that you can download from [WDK and WinDbg downloads page](#). To avoid download and installing a whole pack of SDK just for one debugging tool, you can also directly download a zipped version of dumpchk.exe from [this link](#). To analyze a specific memory dump file, have the dump file ready and open a Command Prompt window.

Navigate to the folder that contains **dumpchk.exe** folder and run the command.

```
dumpchk <location of dump file>
```

For example, I have a memory dump file saved on my desktop and I have dumpchk.exe file stay in the original Windows Kits install location, I first navigate to

```
c:\program files (x86)\Windows Kits\8.1\debuggers\x64
```

and run

```
dumpchk %UserProfile%\desktop\memory.dmp
```

```
Command Prompt
***
*****
***
***
***  Either you specified an unqualified symbol, or your debugger
***  doesn't have full symbol information. Unqualified symbol
***  resolution is turned off by default. Please either specify a
***  fully qualified symbol module!symbolname, or enable resolution
***  of unqualified symbols by typing ".symopt-100". Note that
***  enabling unqualified symbol resolution with network symbol
***  server shares in the symbol path may cause the debugger to
***  appear to hang for long periods of time when an incorrect
***  symbol name is typed or the network symbol server is down.
***
***  For some commands to work properly, your symbol path
***  must point to .pdb files that have full type information.
***
***  Certain .pdb files (such as the public OS symbols) do not
***  contain the required information. Contact the group that
***  provided you with these symbols if you need this command to
***  work.
***
***  Type referenced: nt!_KPRCB
***
*****
Probably caused by : win32k.sys < win32k!EngUnmapPontFileFD+94 >
Followup: MachineOwner
Finished dump check
C:\Program Files (x86)\Windows Kits\8.1\Debuggers\x64>_
```

I've got a load of information to digest but all I need was the last piece in the output,

```
Probably caused by : win32k.sys...
```

That's all I need going forward to fix my BSOD problem.