

Description: Guide to setting up performance monitoring in Windows Vista and Server 2008 in the event of an application crash or memory leak

OS Requirement: Windows Vista x64/ Server 2008 x64, Windows 7.

General Requirement: understanding of Windows Operating Systems and tools

Why Use the Performance Monitor

The performance monitor that comes with Windows can be useful in debugging application crashes and detecting memory leaks. You can set the performance monitor to log information about the health of your computer programs to determine what is causing a crash or memory leak.

This application intends to walk you through the steps necessary to create a performance log on Windows Vista and Windows Server 2008/ Windows 7. For information on how to setup such a log using a prior Windows Operating System, please refer to the application note entitled *GENESIS32 – Setting up the Windows Performance Monitor*.

Creating a Performance Log

1. Open the Reliability and Performance Monitor MMC from Administrative Tools.
2. Once you have that opened, you should see a screen similar to the one in Figure 1.

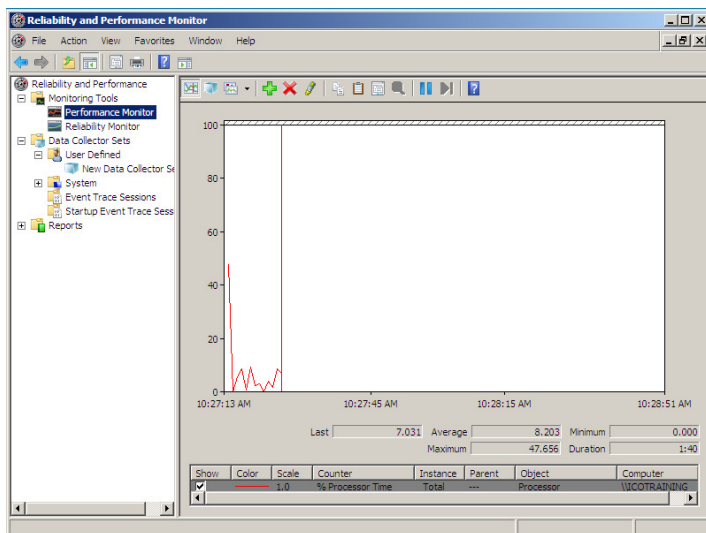


Figure 1 - Reliability and Performance Monitor MMC

3. Under the Data Collector Sets, right-click on User Defined and select New → Data Collector Set
4. In the new dialog that comes up, enter the Name of this Data Collector set and select the Create Manually (Advanced) option. Click on Next when you are done.

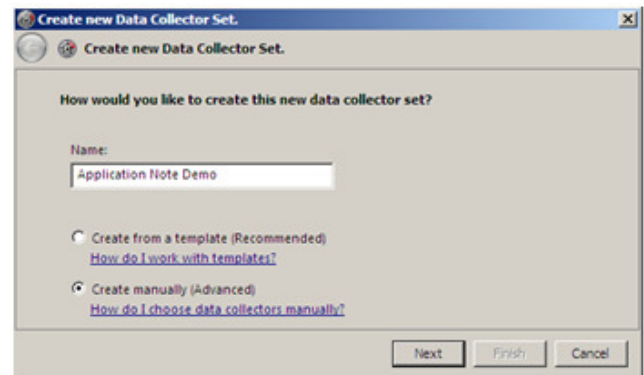


Figure 2 - Create New Data Collector Set Dialog

5. In this screen, check the Performance counter under the Create data logs section and click on Next.
6. In this step, you will need to add the necessary performance counters. Click on the Add button to open the Add Counter Dialog.
7. In the Available Counters section, make sure the “select counters from computer” option is set to the local computer.
8. Expand Process and select the following counters: Handle Count, Private Bytes, Thread Count, and Virtual Bytes.
9. In the Instances of selected object section, choose <All instances>, then click on the Add button at the bottom. Your finished configuration may look similar to Figure 3.

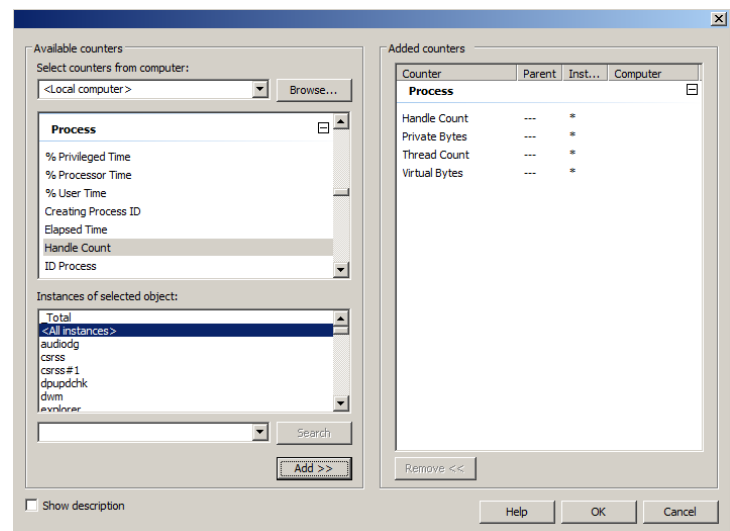


Figure 3 - Performance Counters

10. Click on OK to return to the Create New Data Collector Set dialog. You should now see the list of counters you have added in here.
11. Just below the Performance counters section, you can set the logging intervals. Set the Interval and Units appropriately. The shorter the interval the more data you will collect, but the greater it will affect your system's overall performance. Select a long interval if you do not know when the problem will occur or you know it will not occur for a while. Select a shorter interval if the problem is frequent or will happen soon. If you are unsure, a good default setting is every 1 minute.
13. To start collecting data, click on the green start  button at the top of the management console.
14. Note that if you need to restart your computer while logging, the log will stop. You must manually restart the log after each reboot of the computer. To restart the log you can go back into the Reliability and Performance Monitor console and use the same procedure as described in the previous step to start the log again.

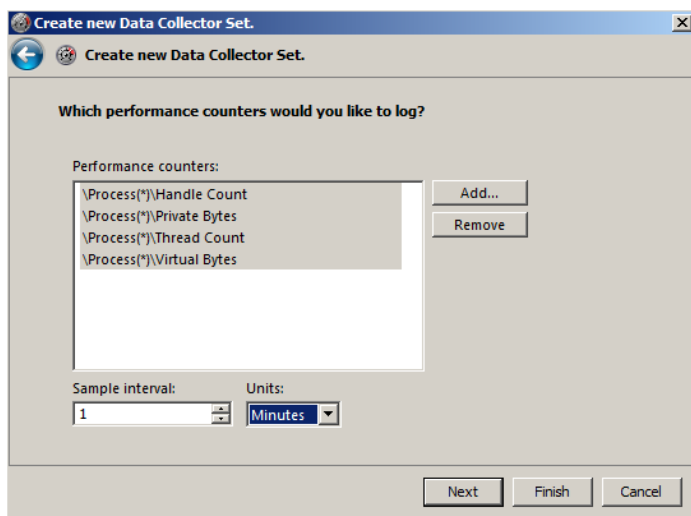


Figure 4 - Configured Performance Counter and Interval

12. Click on Finish when you are done. You have now created a performance log. You should see that under your Data Collector Sets → User Defined section of the Reliability and Performance Monitor.

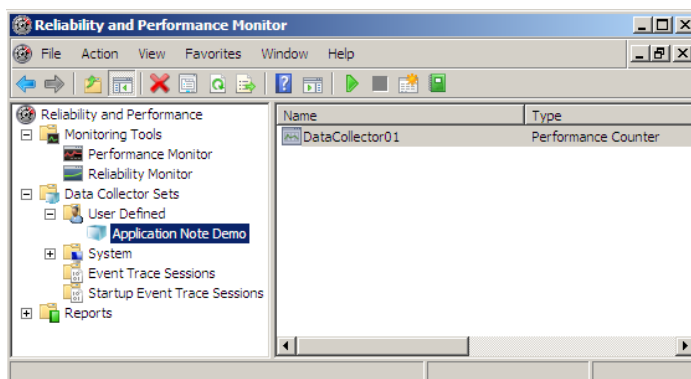


Figure 5 - Configured Log in the MMC