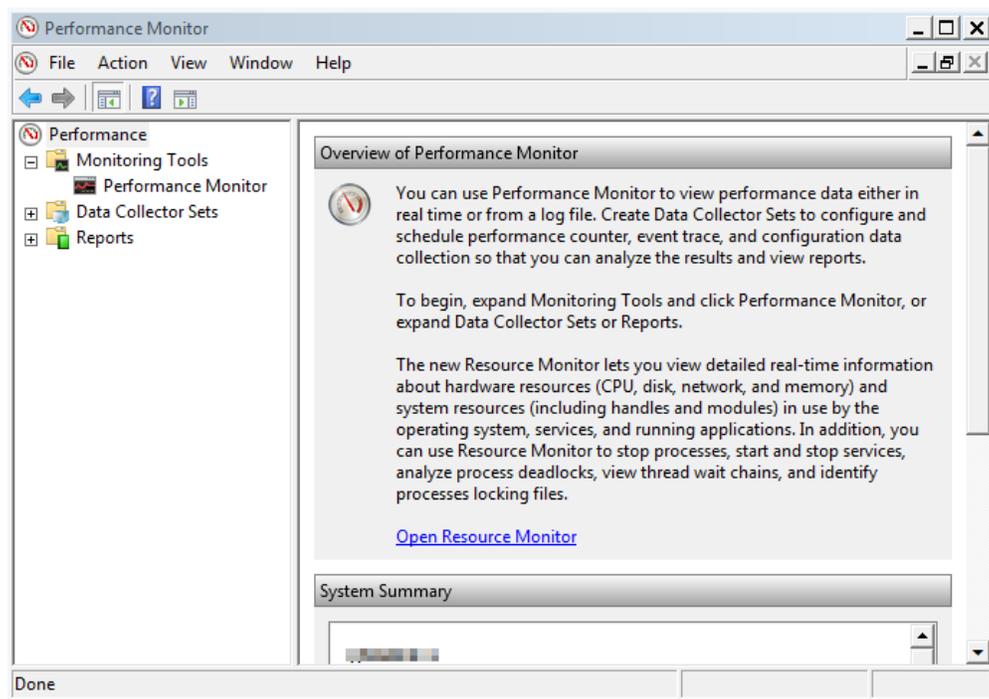


MONITORING PERFORMANCE IN WINDOWS 7

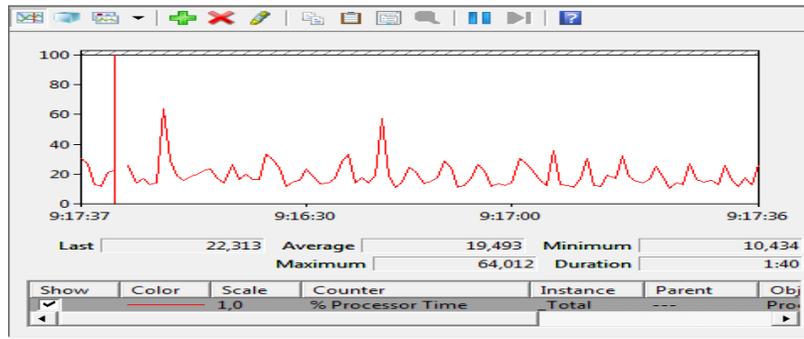
Performance Monitor

In this demo we will take a look at how we can use the Performance Monitor to capture information about our machine performance. We can access Performance Monitor by typing "perfmon" in the Start Menu search box.



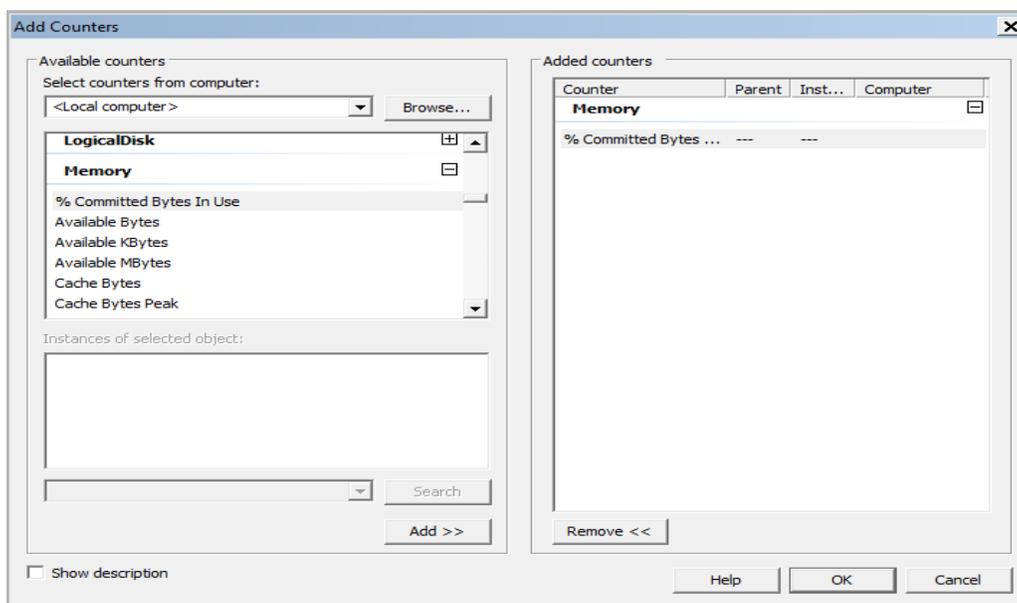
Performance Monitor

If go to Monitoring Tools > Performance Monitor, we will see the performance of our machine in real time.



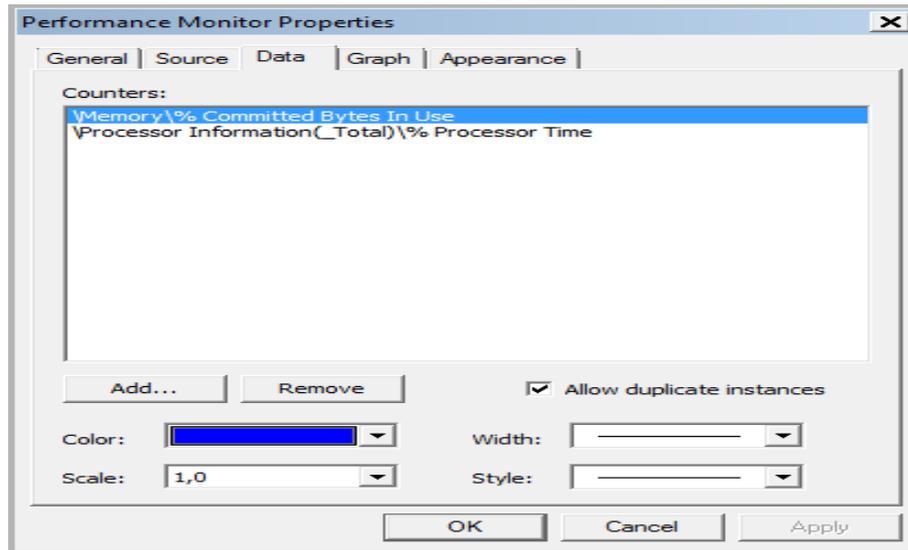
Performance Demo

Here we only see data for our processor, by default. This counter has been added for us (Processor Time counter). We can also monitor other things. Let's say that we want to monitor memory usage as well. To do that we will click on the green plus sign (add button), and select the counter from the list. We can select the counter from the local or remote computer. In our case we will select the Memory > Committed Bytes In Use counter, which is also represented as percentage.



New Counter

When we click OK, we should see both counters in the graph. By default, both our counters are now red, but we can change the color of the counter if we click on it on the list of counters.

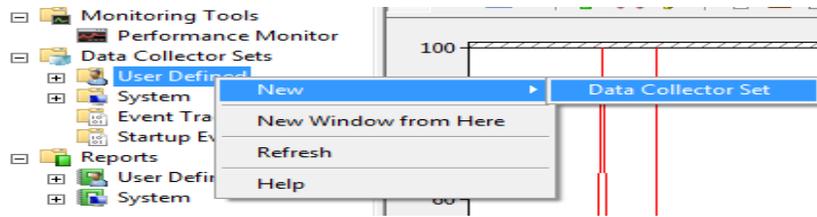


Counter Properties

So, we can add multiple different counters from multiple different objects, if we want. In addition to the Performance Monitor, we can use Data Collector Sets.

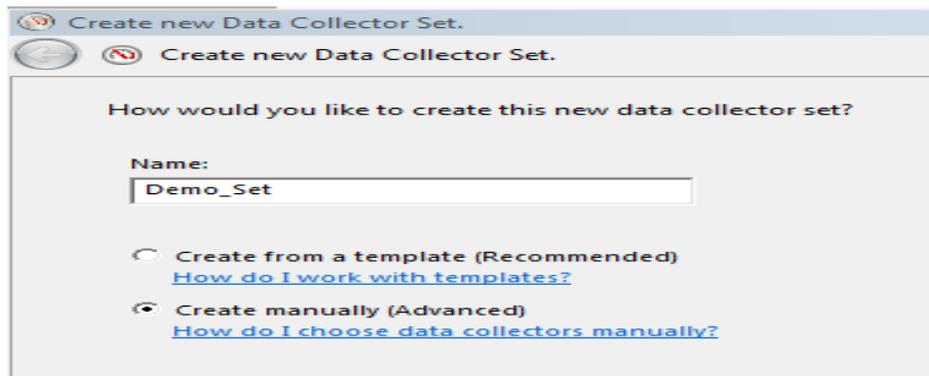
Data Collector Sets

We can use the Data Collector Sets to gather information about different times on our machine. If we right-click on the Data Collector Sets > User Defined, we can select New > Data Collector Set option.



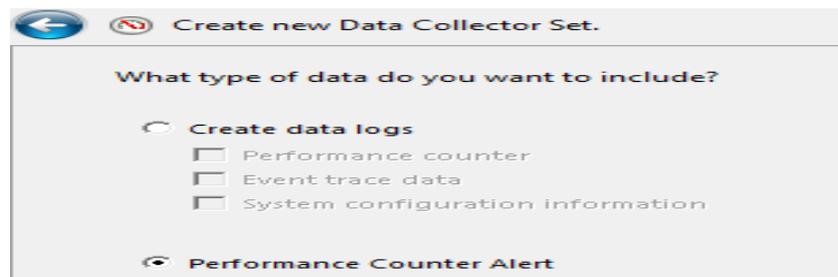
New Data Collector Set

In the window that appears we give our set a name, and choose if we want to create it from the template or create it manually. In our case we will do it manually.



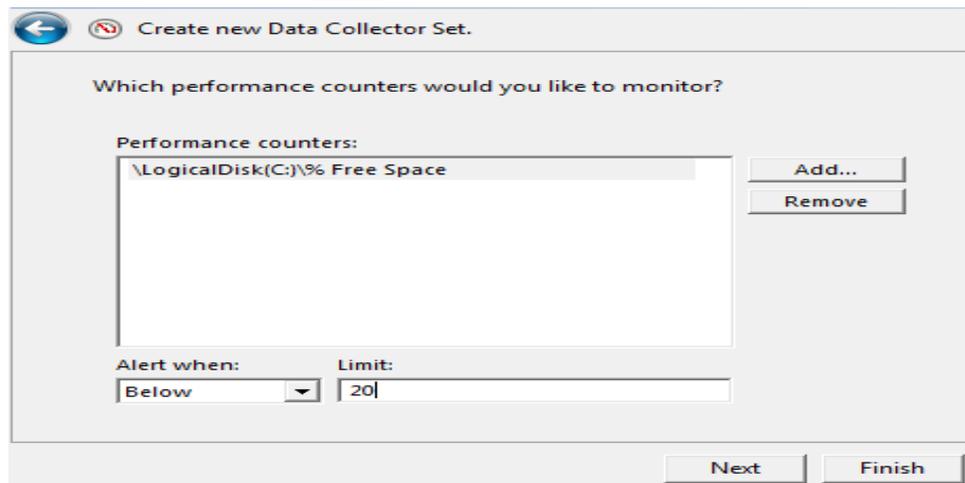
Name

On the next screen we can choose if we want to create data logs or alert. In our case we will select alert.



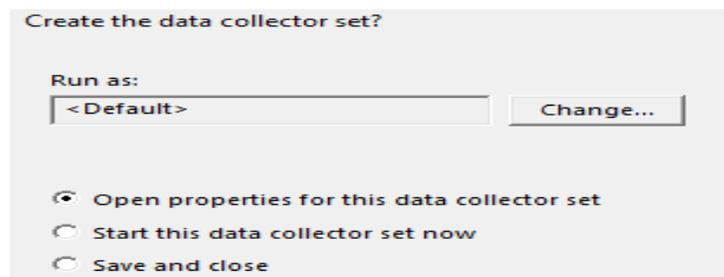
Type

With this option we will specify that if something is above or below a certain value, a counter alert will be thrown. So, on the next window we have to specify the counter which will be tracked. In our case we will monitor the free space on our C: disk, presented as percentage. If the free space goes below 20 (%), the counter alert will be thrown.



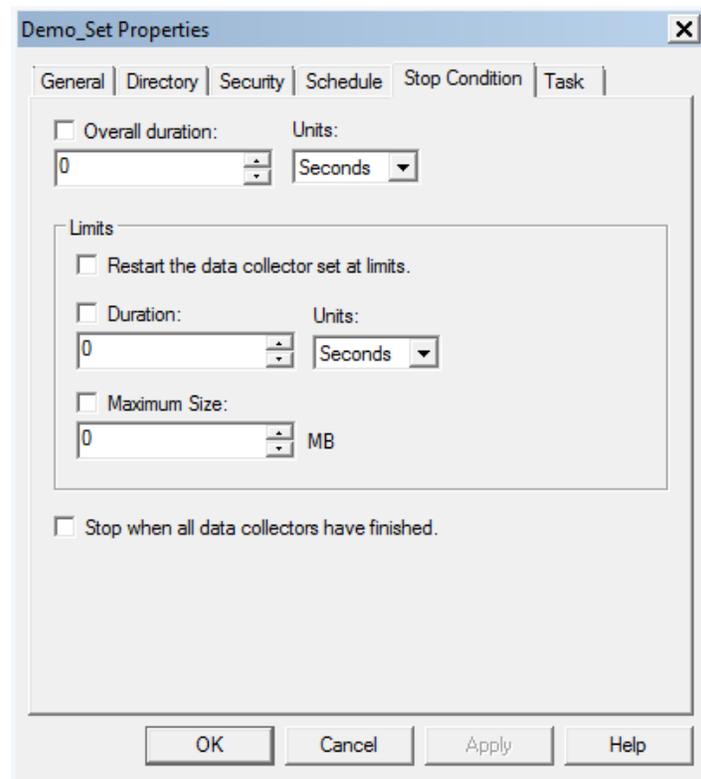
Alert Settings

Here we can click on the Finish button, but if we click Next, we can set additional options. On the next window we can choose to open the properties for this data collector set.



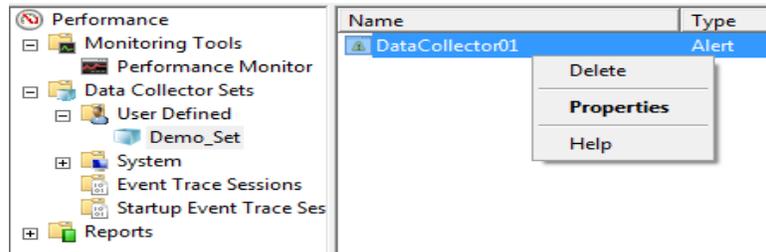
Properties Option

In the Properties we can set many different options for our Data Collector Set. For example, on the Stop Condition tab we can select when will our Data Collector Set stop running. We can choose to stop it based on the overall duration or based on the limits of maximum size of the collected data.



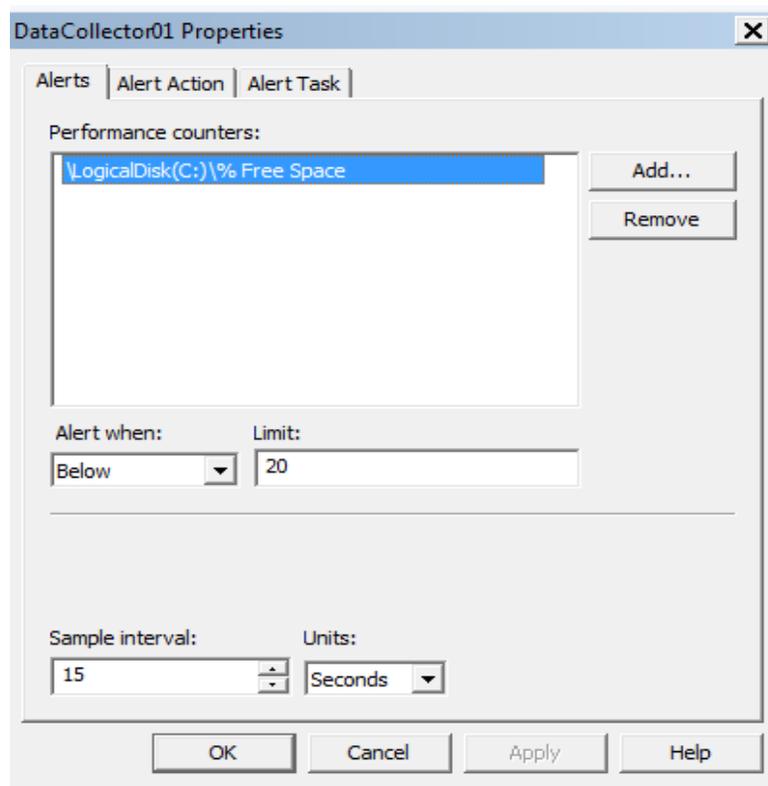
We can also set a schedule for our Collector Set (on the Schedule tab). If we don't schedule the Collector Set, we will have to start it manually. We can also change the directory where the Set will be stored (on the Directory tab), choose who can work with it (on the Security tab), and specify the task that will run when the set stops (on the Task tab).

Now, let's go to the specific alert in our Demo_Set and open its properties (right-click it and select the Properties option).



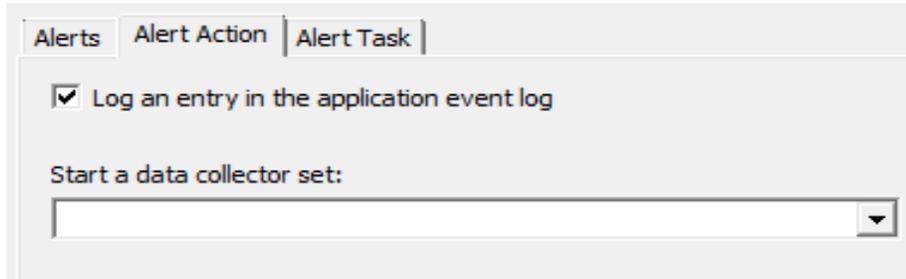
Right-click Alert

On the Properties of the alert, we will see the sample interval, which is 15 seconds by default.



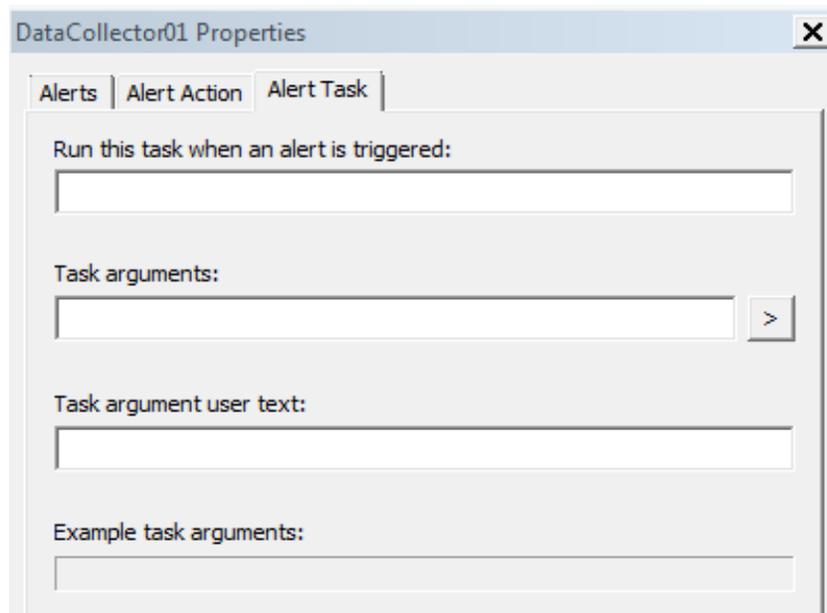
Alert Properties

On the Alert Action tab, we can specify an action. Here we can select to log the data in the application or start another data collector set.



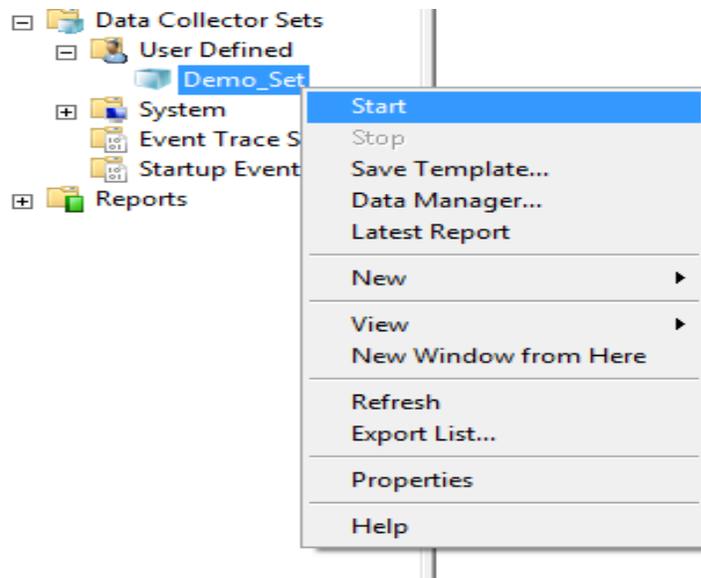
Action Tab

On the Alert Task tab, we can select to run a task when this alert is triggered.



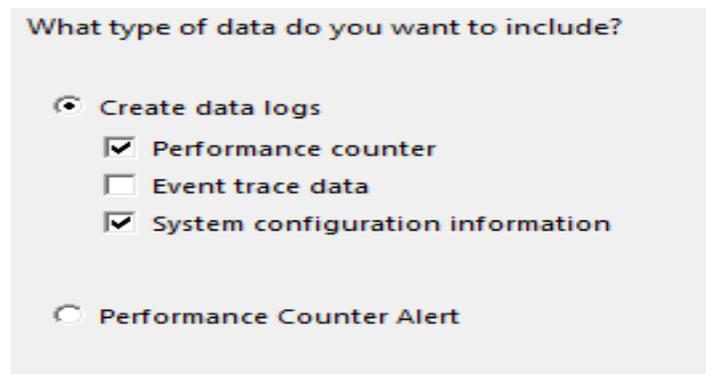
Task Tab

To start the Data Collector Set, we have to select it and select the Start option.



Start Data Collector Set

So the previous example was the Performance Counter Alert. We can also use Data Collector Set to create data logs.



Create Data Logs Option

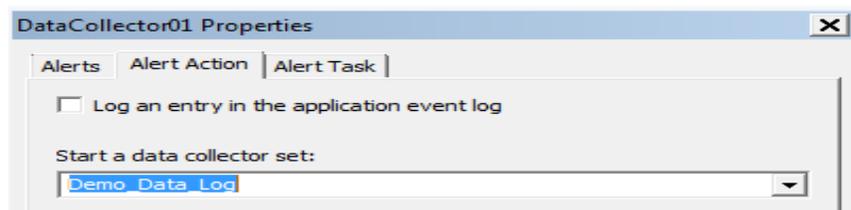
In this type, we can also select the counter, but note that we can also collect current system configuration information. Configuration information is pulled from the Windows Registry. We have to enter the registry keys which we want to record.



Registry Keys (Configuration)

To get the correct key, we can use Registry Editor and find the path to the key.

If we have two data collector sets, we can run one from the other. For example, since we now have an alert data collector set (which runs when something goes below or above certain value), we can set its action to run the other data collector set (which will gather data about our system).

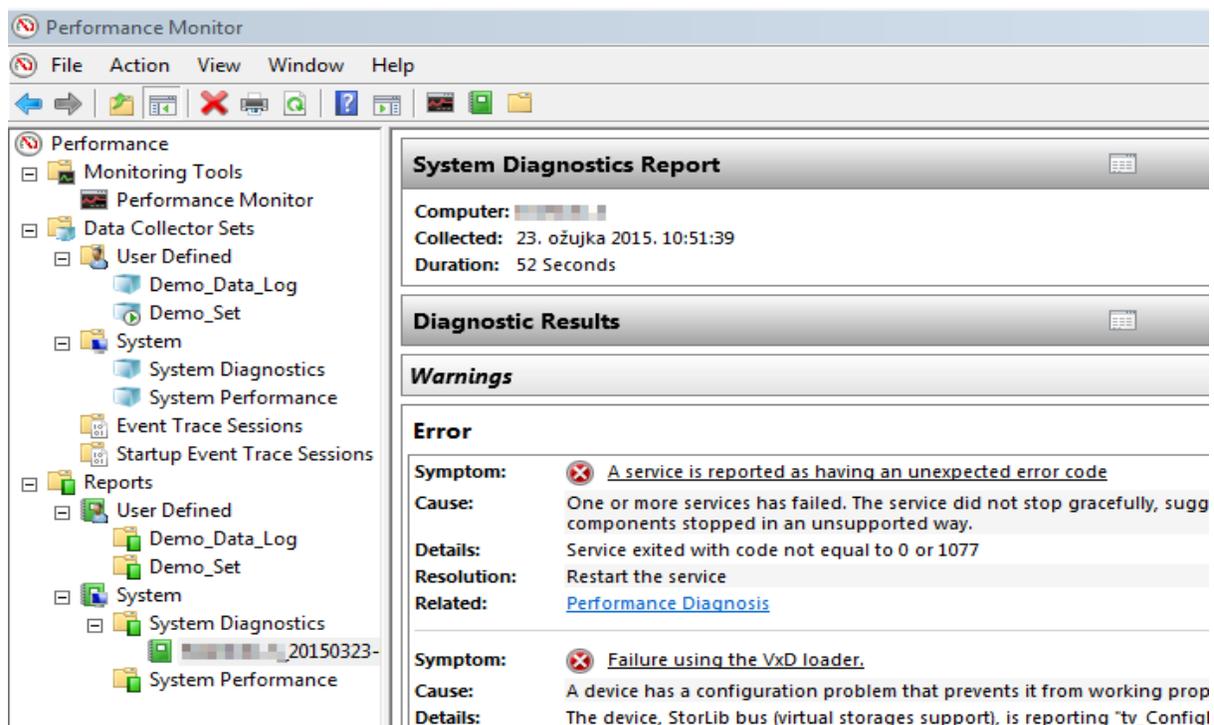


Running Another Data Collector Set

There are two default collectors sets in Windows 7. One is the System Performance set, which collects information about the CPU, hard disk drive, system kernel, and network performance. Another is the System Diagnostics set which collects detailed system information in addition to the data gathered in the system performance set.

Reports

We use the Reports tool to view the collected data or to create new reports from a set of data collector set counters. Note that if a collector set has not run, no reports will be available. For example, we can run a System Diagnostic report which includes the status of hardware resources, system response times, and processes on the local computer. To generate this report we have to start the System Diagnostics data collector set in the Performance Monitor. When it finishes, we can reach the report in the Report section.



Report Example

Source: <http://www.utilizewindows.com/7/management/531-monitoring-performance-in-windows-7>