Data collection Sets Server 2012 (Create from Performance Monitor)

A Data Collector Set is the building block of performance monitoring and reporting in Windows Performance Monitor. It organizes multiple data collection points into a single component that can be used to review or log performance. A Data Collector Set can be created and then recorded individually, grouped with other Data Collector Set and incorporated into logs, viewed in Performance Monitor, configured to generate alerts when thresholds are reached, or used by other non-Microsoft applications. It can be associated with rules of scheduling for data collection at specific times. Windows Management Interface (WMI) tasks can be configured to run upon the completion of Data Collector Set collection.

Data Collector Sets can contain the following types of data collectors:

- Performance counters

- Event trace data

- System configuration information (registry key values)

You can create a Data Collector Set from a template, from an existing set of Data Collectors in a Performance Monitor view, or by selecting individual Data Collectors and setting each individual option in the Data Collector Set properties.

Monitoring Domain Controller and Active Directory Performance

1. Click on tools Performance Monitor to Open Performance Monitor

2. In the left pane, right-click Performance Monitor and select New ➢ Data Collector Set. In the Name box of the Create New Data Collector Set dialog box, type **Domain Controller Performance** and click Next.
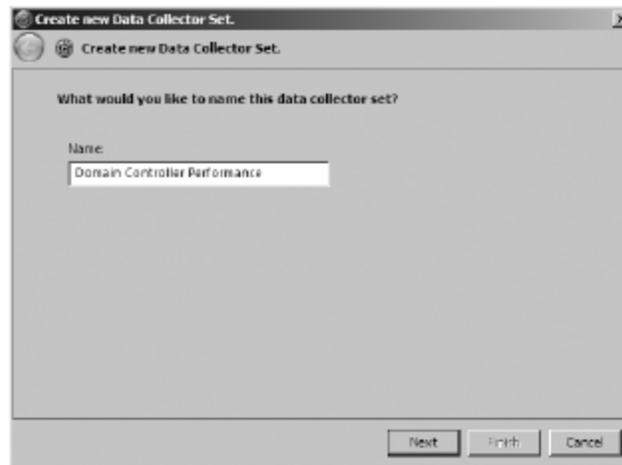
3. A dialog box showing the location of the saved data appears. This is the location on the hard disk where the data will be stored. Keep the defaults and click Next.

4. In the Create New Data Collector Set dialog box, make sure the Save And Close radio button is selected and click Finish.

Create new Data Collector Set.

Create new Data Collector Set.

Create the data collector set?

Run as:

`<Default>`   [Change...]

○ Open properties for this data collector set

○ Start this data collector set now

● Save and close

[Next] [Finish] [Cancel]
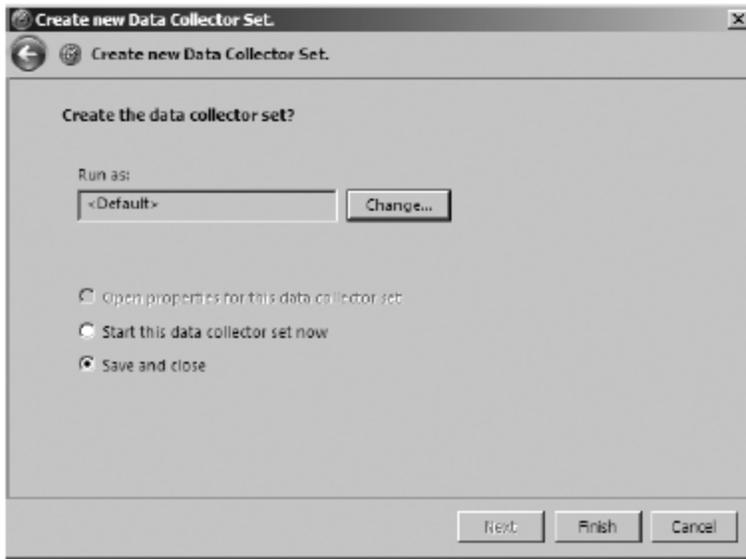
5. In the left pane of   Performance Monitor, expand Data Collector Sets, User Defined and click the new collector set you just created (Domain Controller Performance). Right-click System Monitor Log in the right pane and choose Properties.

Reliability and Performance Monitor

File   Action   View   Favorites   Window   Help

Name	Type	Output
System Monitor Log	Performance Counter	

Reliability and Performance
- Monitoring Tools
  - Performance Monitor
  - Reliability Monitor
- Data Collector Sets
  - User Defined
    - Domain Controller Performance
  - System
  - Event Trace Sessions
  - Startup Event Trace Sessions
- Reports

Delete
Properties
Help

Opens the properties dialog box for the current selection.

6. In the System Monitor Log Properties dialog box, click the Add button.

7. In the dialog box that appears, select <Local Computer> in the Select Counters From Computer drop-down list. Expand the Processor object from the Available Counters list. Select the % Processor Time counter and the _Total instance. Note that you can click the Show Description box to find more information about the various parameters that are available. Click the Add button to add the counter to the Added Counters list.
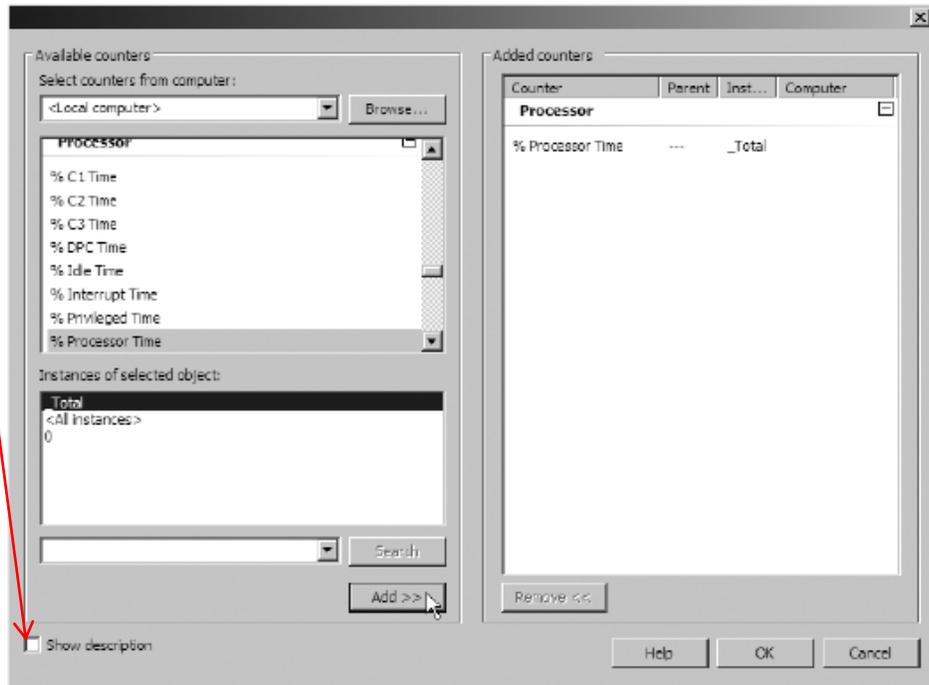
8. When you are finished adding these counters, click the OK button to return to the System Monitor Log Properties dialog box and view the counters that you selected.
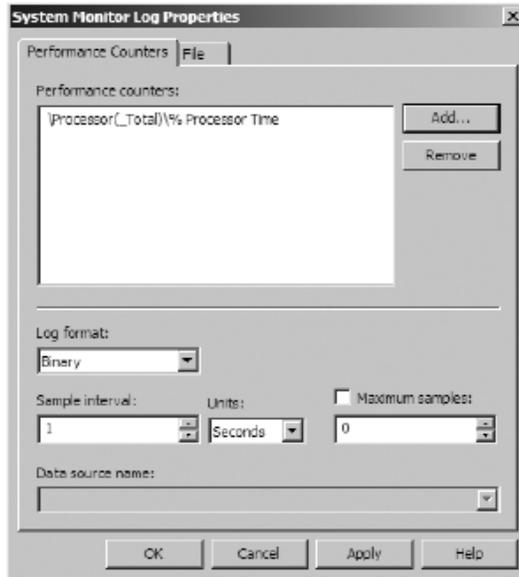
9. Click the File tab of the System Monitor Log Properties dialog box. Change the log file name to **Domain Controller log.** Click the Append check box. Click OK.
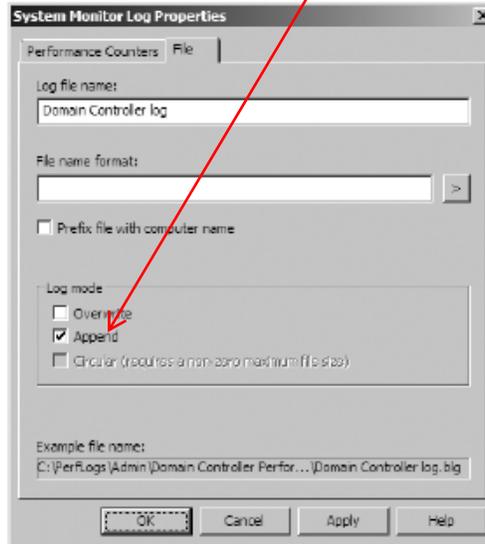
10. In the left pane of   Performance Monitor, right-click the collector set Domain Controller Performance. Choose Start.
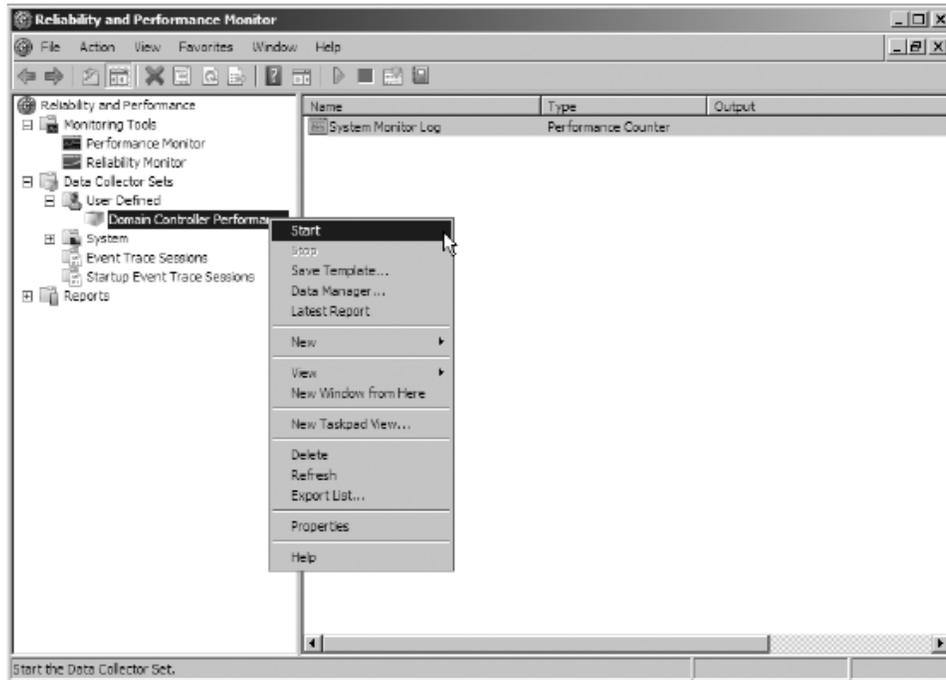
11. Let the system run for five minutes. During this time, open applications or windows on the server. After five minutes, in the left pane of   Performance Monitor, right-click the collector set Domain Controller Performance. Choose Stop.

12. Right-click the collector set Domain Controller Performance. Choose Latest Report.
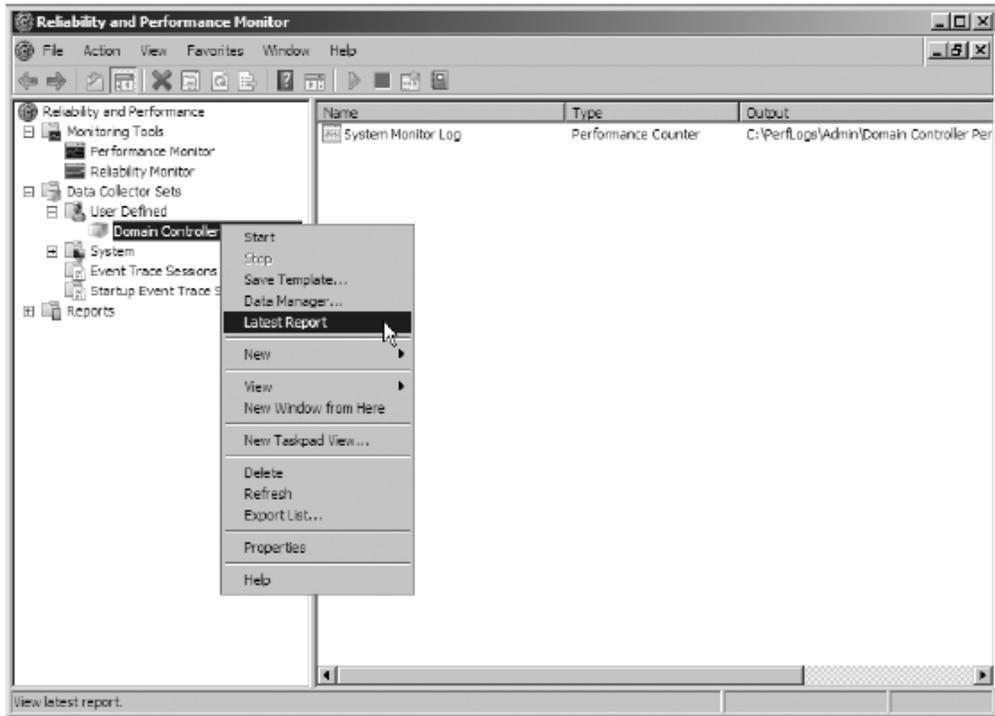
13. View the data that was captured.
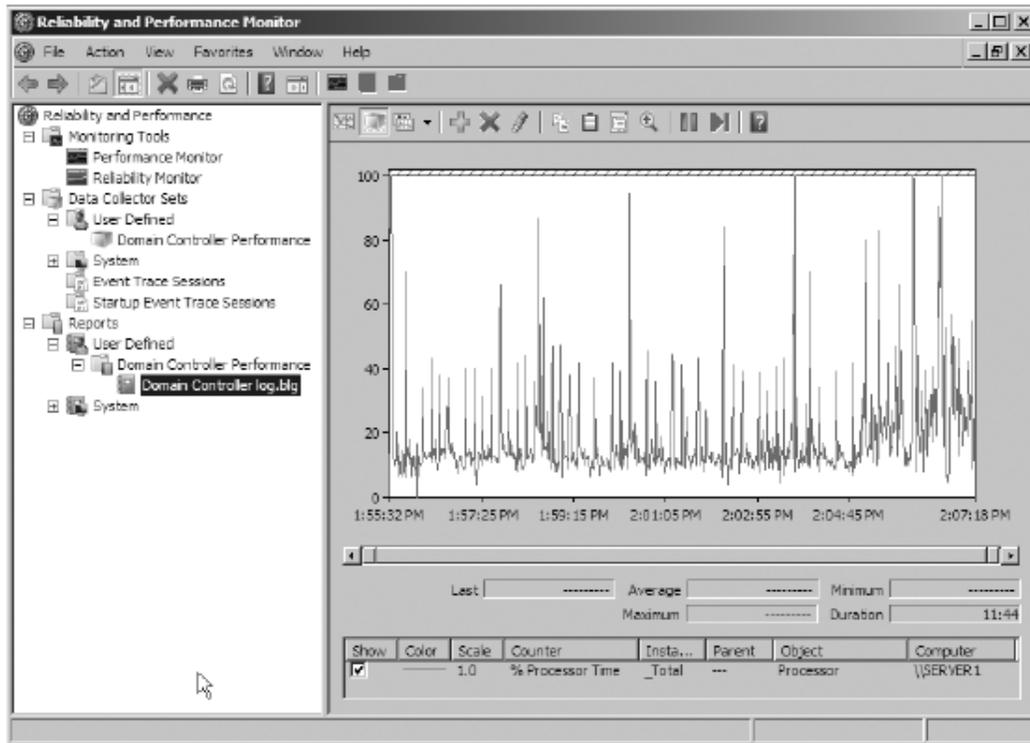
14. When you are done viewing the captured data, close the Reliability and Performanc Monitor.

Create a Data Collector Set from a Template

3 out of 6 rated this helpful - Rate this topic

Applies To: Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Vista

The simplest way to create a new Data Collector Set is by using the wizard in Windows Performance Monitor. Windows Vista includes several templates that focus on general system diagnosis information or collect performance data specific to server roles or applications. In addition, you can import templates created on other computers and save Data Collector Set you create for use elsewhere.

Importing Templates

Data Collector Set templates are stored as XML files and may be imported directly from the local hard drive or from available removable or network drives.

To import a Data Collector Set template, run the Create new Data Collector Set Wizard and click **Browse** in the Template Data Collector screen. Browse to the location of the XML file you want to use, select the file name, and click **OK** .

Exporting Templates

To export a Data Collector Set you create as a template for use on other computers, open Windows Performance Monitor, expand Data Collector Sets, right-click the Data Collector Set you want to export, and click **Save Template** . Select a directory in which to store the XML file and click **Save** .

Membership in the local **Performance Log Users** or **Administrators** group, or equivalent, is the minimum required to complete this procedure.

Note
The Performance Log Users group must be assigned the **Log on as a batch user** user right, as described here:

Applies To: Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Vista

In order for members of the Performance Log Users group to initiate data logging or modify Data Collector Sets, the group must first be assigned the **Log on as a batch job** user right. To assign this user right, use the Local Security Policy snap-in in Microsoft Management Console.

Membership in the local **Administrators** group, or equivalent, is the minimum required to complete this procedure.

To assign the "Log on as a batch job" user right to the Performance Log Users group

1. Click **Start** , click in the Search box, type **secpol.msc** , and press ENTER. The Local Security Policy snap-in will open in Microsoft Management Console.
2. In the navigation pane, expand **Local Policies** and click **User Rights Assignment** .
3. In the console pane, right-click **Log on as a batch job** and click **Properties** .
4. In the Properties page, click **Add User or Group** .
5. In the **Select Users or Groups** dialog box, click **Object Types** . Select **Groups** in the **Object Types** dialog box and click **OK** .
6. Type **Performance Log Users** in the **Select Users or Groups** dialog box and then click **OK** .
7. In the properties page, click **OK** .

Note
To use templates that collect data using the Windows Kernel Trace provider, you must be a member of the local Administrators group.

To create a Data Collector Set from a template

1. In the Windows Performance Monitor navigation pane, expand Data Collector Sets, right-click **User Defined** , point to **New** , and click **Data Collector Set** . The Create new Data Collector Set Wizard starts.
2. Enter a name for your Data Collector Set.
3. Select **Create from a template** and click **Next** .
4. Select the template you want to use to create your Data Collector Set from the menu.

   Note

   When you highlight an available template, its description appears to the right of the list.

5. Click **Next** to choose a custom location for the data to be saved or to define more options, or click **Finish** to save the current settings and exit.
6. The **Root Directory** will contain data collected by the Data Collector Set. Change this setting if you want to store your Data Collector Set data in a different location than the default. Browse to and select the directory, or type the directory name.

   Note

   If you enter the directory name manually, you must not enter a back slash at the end of the directory name.

7. Click **Next** to define a user for the Data Collector Set to run as, or click **Finish** to save the current settings and exit.
8. After clicking **Next** , you can configure the Data Collector Set to run as a specific user. Click the **Change** button to enter the user name and password for a different user than the default listed.

   Note

   If you are a member of the Performance Log Users group, you must configure Data Collector Sets you create to run under your own credentials.

9. Click **Finish** to return to Windows Performance Monitor.
   o To view the properties of the Data Collector Set or make additional changes, select **Open properties for this data collector set** . For more information about the properties of the Data Collector Set, see below:

Data Collector Set Properties

Applies To: Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Vista

To view or modify the properties of a Data Collector Set after it has been created, you can:

- Select the **Open properties for this data collector set** check box at the end of the Data Collector Set Creation Wizard.

- Right-click the name of a Data Collector Set, either in the MMC scope tree or in the console window, and click **Properties** in the context menu.

Tab	Details
General	The **General** tab includes the **description** and **keywords** associated with the Data Collector Set. If you created the Data Collector Set from a template that had a description and keywords, they will be included here. If you created a custom Data Collector Set, you can add data here to help you identify it later, or to provide more information to others if you export it as a template. You can change what user the Data Collector Set will **Run As** by clicking **Change…** and entering a user name and password. **Important** The Data Collector Set must run as a user with administrative credentials or as a member of the Performance Log Users group. **Note** If you configure the Data Collector Set to run as a user with a higher level credentials than the currently logged on user, you will be prompted to enter the user name and password of the account the Data Collector Set is configured to run as when you change its properties.
Directory	In addition to defining a root directory for storing Data Collector Set data, you can specify a single **Subdirectory** or create a **Subdirectory name format** by clicking the arrow to the right of the text entry field. The **Example directory** at the bottom of the page provides a real-time sample of the directory and/or subdirectory where the Data Collector Set data will be stored.
Security	You can change the permissions of groups or users for the Data Collector Set by selecting the Group or User name and then selecting the **Allow** or **Deny** check boxes for each permission type. To add, remove, or change permission types, click the **Advanced** button.

	Note These permission changes, including changes implemented in the Advanced section, apply only to the Data Collector Set.
Scheduling	The schedule tab includes options for configuring when data collection begins. For more information, see [Scheduling and Managing Data in Windows Performance Monitor](). Use the **Stop Condition** tab to configure stopping data collection.
Stop Condition	A single stop condition, or a combination of multiple criteria, can be used to automatically halt or restart the collection of data from a Data Collector Set. Select the check boxes to choose one or all of the stop conditions you want to apply to the Data Collector Set. If no stop conditions are selected on this tab, the Data Collector Set will collect data from the time it is started (either manually or automatically) until it is manually stopped. **Overall duration** causes the Data Collector Set to stop collecting data when the configured time has elapsed. The overall duration setting takes precedence over any settings defined as limits. **Limits** can be used instead of, or in addition to, the overall duration stop condition. To automatically restart collection of the Data Collector Set when limits for duration, size, or both are reached, select the check box. When used in combination with the overall duration stop condition, configuring automatic restarts will cause the data to be collected in separate log files for each specified time period or size until the overall duration stop condition is met.
Task	You can run a Windows Management Instrumentation (WMI) task upon completion of the Data Collector Set collection by entering the command in the **Run this task when the data collector set stops** box. Refer to WMI task documentation for options.

o

o   [Data Collector Set Properties]().

o   To start the Data Collector Set immediately (and begin saving data to the location specified in Step 6), select **Start this data collector set now** .

o   To save the Data Collector Set without starting collection, select **Save and close** .

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Create a Data Collector Set Manually

Applies To: Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Vista

You can build a Data Collector Set from a custom combination of Data Collectors. These Data Collectors can include Performance Counters, Configuration data, or data from Trace Providers.

Membership in the local **Performance Log Users** or **Administrators** group, or equivalent, is the minimum required to complete this procedure.

Note

The Performance Log Users group must be assigned the **Log on as a batch user** user right, as described in [Enable Logging for Performance Log Users Group Members](#).

To create a Data Collector Set manually

1. In the Windows Performance Monitor navigation pane, expand **Data Collector Sets** , right-click **User Defined** , point to **New** , and click **Data Collector Set** . The Create new Data Collector Set Wizard starts.
2. Enter a name for your Data Collector Set.
3. Select **Create manually** and click **Next** .
4. Select **Create data logs** .
5. Check the boxes next to the Data Collector types you want to use and click **Next** .
    - **Performance counters** provide metric data about the system's performance.

    - **Event trace data** provides information about activities and system events.

    - **System configuration information** allows you to record the state of, and changes to, registry keys.

6. Depending on the Data Collector types you selected, you will be presented with dialogs to add Data Collectors to your Data Collector Set.
    - Click **Add** to open the **Add Counters** dialog box. When you are finished adding Performance counters, click **Next** to continue configuration or **Finish** to exit and save the current configuration.

    - Event Trace Providers can be installed with the operating system or part of a non-Microsoft application. Click **Add** to select from a list of available Event Trace Providers. You can select multiple providers by holding down the Control key and highlighting. When you are finished adding Event Trace Providers, click **Next** to continue configuration or **Finish** to exit and save the current configuration.

    - Record system configuration information by entering Registry keys you want to track. You must know the exact key you want to include in the Data Collector Set.

When you are finished adding Registry keys, click **Next** to continue configuration or **Finish** to exit and save the current configuration.

Note

If you did not check all Data Collector types, not all of the entry dialogs described here will be included in the wizard steps.

7. The **Root Directory** will contain data collected by the Data Collector Set. Change this setting if you want to store your Data Collector Set data in a different location than the default. Browse to and select the directory, or type the directory name.

Note

If you enter the directory name manually, you must not enter a back slash at the end of the directory name.

8. After clicking **Next** , you can configure the Data Collector Set to run as a specific user. Click the **Change** button to enter the user name and password for a different user than the default listed.

Note

If you are a member of the Performance Log Users group, you must configure Data Collector Sets you create to run under your own credentials.

9. Click **Finish** to return to Windows Performance Diagnostic Console.
   o To view the properties of the Data Collector Set or make additional changes, select **Open properties for this data collector set** . For more information about the properties of the Data Collector Set, see Data Collector Set Properties.

   o To start the Data Collector Set immediately (and begin saving data to the location specified in Step 8), select **Start this data collector set now** .

   o To save the Data Collector Set without starting collection, select **Save and close** .

Performance Counters Alert

Applies To: Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Vista

You can create a custom Data Collector Set containing performance counters and configure alert activities based on the performance counters exceeding or dropping below limits you define.

After creating the Data Collector Set, you must configure the actions the system will take when the alert criteria are met.

Membership in the local **Performance Log Users** or **Administrators** group, or equivalent, is the minimum required to complete these procedures.

To create a Data Collector Set to monitor Performance counters

1. In the Windows Performance Monitor navigation pane, expand **Data Collector Sets** , right-click **User Defined** , point to **New** , and click **Data Collector Set** . The Create new Data Collector Set Wizard starts.
2. Enter a name for your Data Collector Set.
3. Select the **Create manually** option and click **Next** .
4. Select the **Performance Counter Alert** option and click **Next** .
5. Click **Add** to open the **Add Counters** dialog box. When you are finished adding counters, click **OK** to return to the wizard.
6. Define alerts based on the values of performance counters you have selected.
    1. From the list of Performance counters, select the counter to monitor and trigger an alert.

    2. From the **Alert when** drop-down, choose whether to alert when the performance counter value is above or below the limit.

    3. In the **Limit** box, enter the threshold value.

7. When you are finished defining alerts, click **Next** to continue configuration or **Finish** to exit and save the current configuration.
8. After clicking **Next** , you can configure the Data Collector Set to run as a particular user. Click the **Change** button to enter the user name and password for a different user than the default listed.

    Note

    If you are a member of the Performance Log Users group, you must configure Data Collector Sets you create to run under your own credentials.

9. Click **Finish** to return to Windows Performance Monitor.

- o To view the properties of the Data Collector Set or make additional changes, select **Open properties for this data collector set** . For more information about the properties of the Data Collector Set, see [Data Collector Set Properties](#).

- o To start the Data Collector Set immediately (and begin saving data to the location specified in Step 8), select **Start this data collector set now** .

- o To save the Data Collector Set without starting collection, select **Save and close** .

Additional considerations

- To open Windows Performance Monitor, click **Start** , click in the **Start Search** box, type **perfmon** , and then press ENTER.

- Data Collector Sets run as the System user by default. As a security best practice, you should accept this default value unless you have a compelling reason to change it.

Additional references

- [Windows Performance Monitor](#)

- [Scheduling and Managing Data in Windows Performance Monitor](#)

To configure alert actions

1. Expand **Reliability and Performance** in the navigation pane.
2. Expand **Data Collector Sets** , expand **User Defined** , and click the name of the Data Collector Set with performance counter alerts.
3. In the console pane, right-click the name of a Data Collector whose type is **Alert** and click **Properties** .
4. On the Data Collector **Properties** page, click the **Alerts** tab. The data collectors and alerts already configured should appear.
5. Click the **Alert Action** tab to choose whether to write an entry to the event log **Applications and Services Logs/Microsoft/Windows/Diagnosis-PLA/Operational** when the alert criteria are met. You can also start a Data Collector Set when the alert criteria are met.
6. Click the **Alert Task** tab to choose a Windows Management Interface (WMI) task and arguments to run when the alert criteria are met.