

## Application Note

### Collecting performance data on Windows 7 systems

This application note describes how to configure Windows Performance Monitor to collect a Data Collector Set of performance data on Windows 7 systems during normal user operation. The purpose of collecting this data is to ensure there are no bottlenecks causing potential problems on a system.

Source information for this document was taken from Microsoft TechNet library article:  
[technet.microsoft.com/en-gb/library/cc749249.aspx?f=255&MSPPError=-2147217396](http://technet.microsoft.com/en-gb/library/cc749249.aspx?f=255&MSPPError=-2147217396)

#### Contents

1 What is a Data Collector Set? .....	1
2 Create a new data collector set .....	2
3 Specify the schedule and stop condition .....	5
4 View the report .....	7
5 Collect files for analysis by Amulet Hotkey .....	8

#### 1 What is a Data Collector Set?

Microsoft describe a Data Collector Set as:

“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)”

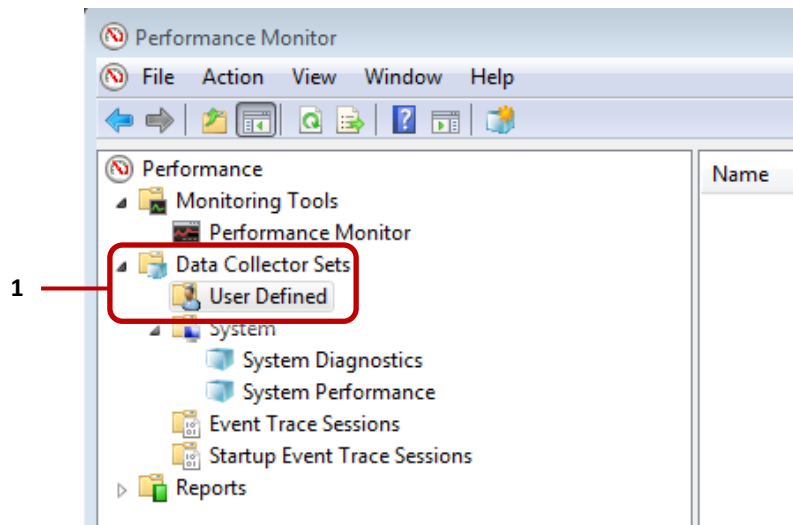
## 2 Create a new data collector set

First, you must create a new Data Collector Set.

1. Launch the Performance Monitor applet.

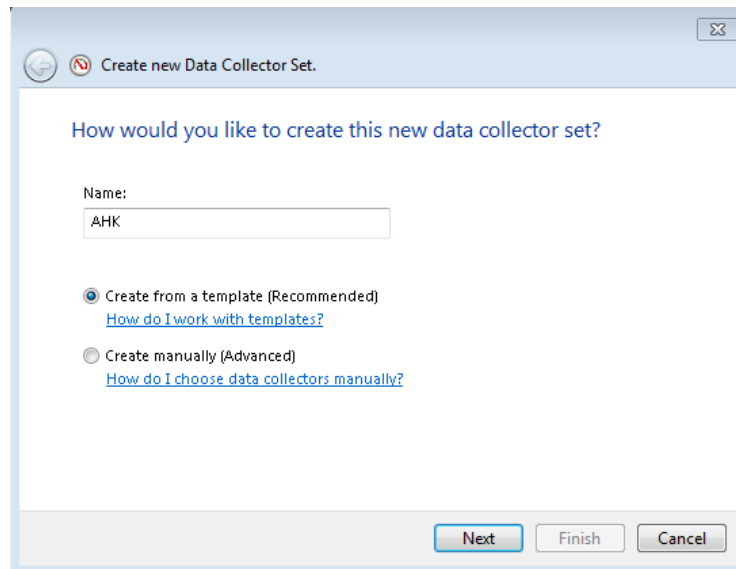
Find this applet in the Administrative Tools folder. Or click the Start button  and type **perfmon** in the search box.

2. When Performance Monitor starts, expand the **Data Collector Sets** branch.
3. Right-click the **User Defined** set and click New > Data Collector Set.



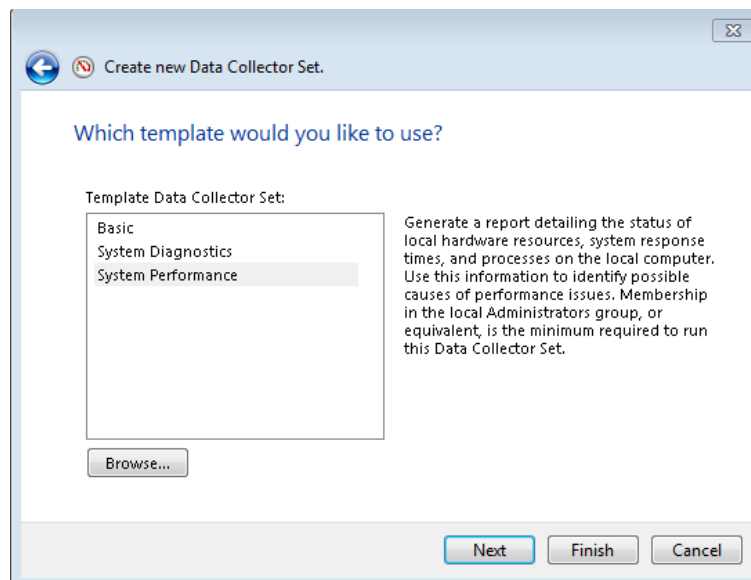
*Performance Monitor: User Defined data collector set (1)*

4. In the first Create New Data Collector Set screen:
  - a. Enter a name for the new data collector set. For this example, use 'AHK'.
  - b. Choose to create the set from a template (the recommended option).
  - c. Click Next.



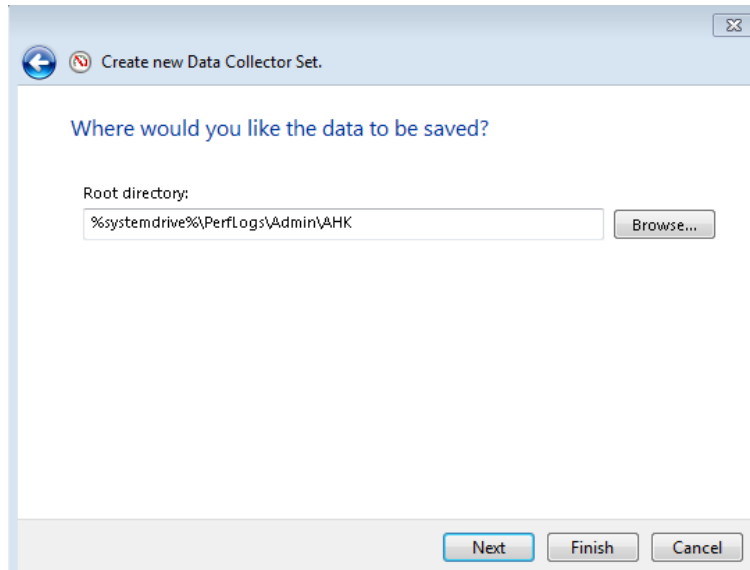
*Create New Data Collector Set screen: name and creation method*

5. In the next Create New Data Collector Set screen, specify which template to use. For this example, choose System Performance. Then click Next.



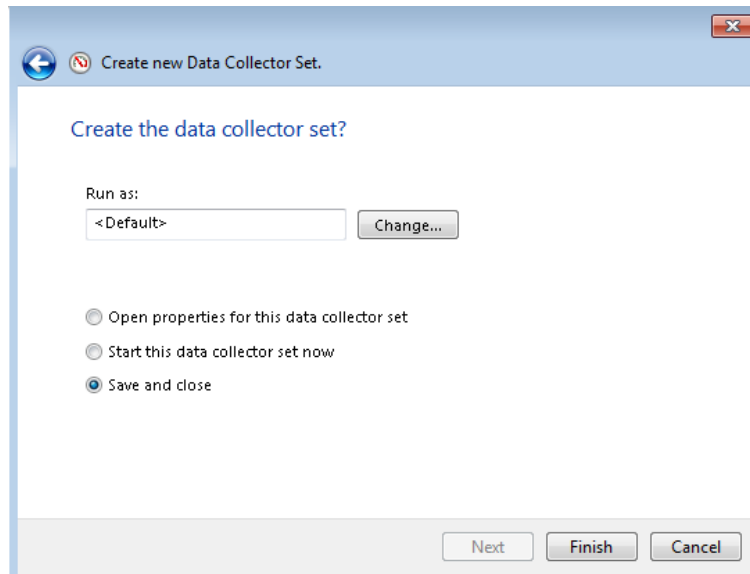
*Create New Data Collector Set screen: template for data collector set*

6. In the next Create New Data Collector Set screen, specify where the data is saved. You can accept the default directory or create a new one. Then click Next.



*Create New Data Collector Set screen: saved data directory*

7. In the final Create New Data Collector Set screen:
  - a. Specify which user account the Data Collector Set runs as. Choose a user with admin rights.
  - b. Choose the Save and Close option.
  - c. Click Finish.

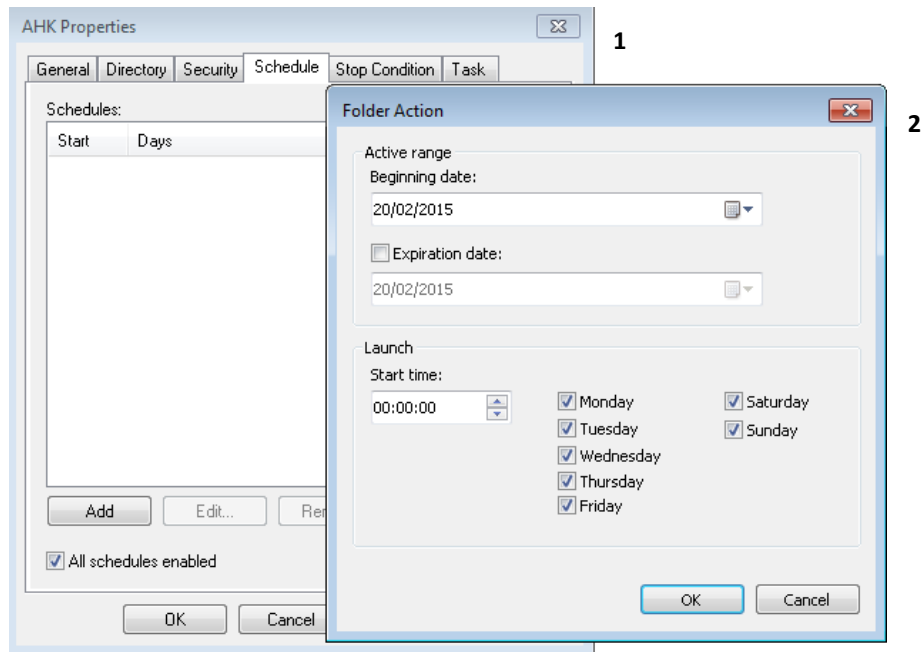


*Create New Data Collector Set screen: Run As account*

### 3 Specify the schedule and stop condition

Now you must specify the schedule and stop condition for the new data collector set.

1. Right-click your new Data Collector Set and choose Properties.
2. In the Properties dialog, go to the Schedule tab and click Add.
3. In the resulting Folder Action dialog, specify the run schedule. This specifies the dates when the data collector set is active and the time that it runs.
  - a. You can specify beginning and (optional) expiry dates, the daily start time, and the days on which the data is collected. For example, choose Monday to Friday and an expiry date of one week after the beginning date.
  - b. Click OK to save the schedule.

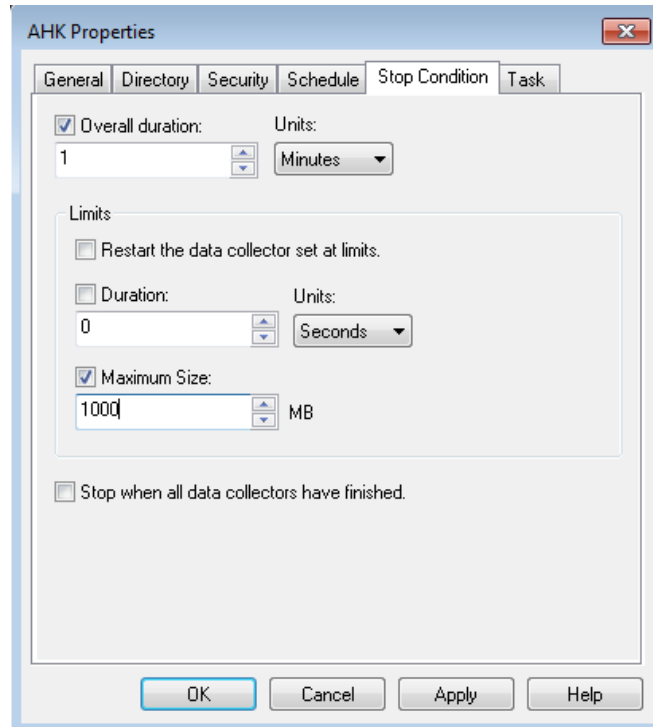


**1** Properties dialog, Schedule tab. **2** Folder Action dialog for a new schedule.

4. In the Properties dialog, go to the Stop Condition tab and specify the run duration and the file size limit.

We recommend that you set a reasonable maximum file size relative to the available disk space. In the example below, the maximum file size is 1GB.

Click OK to save the stop condition.

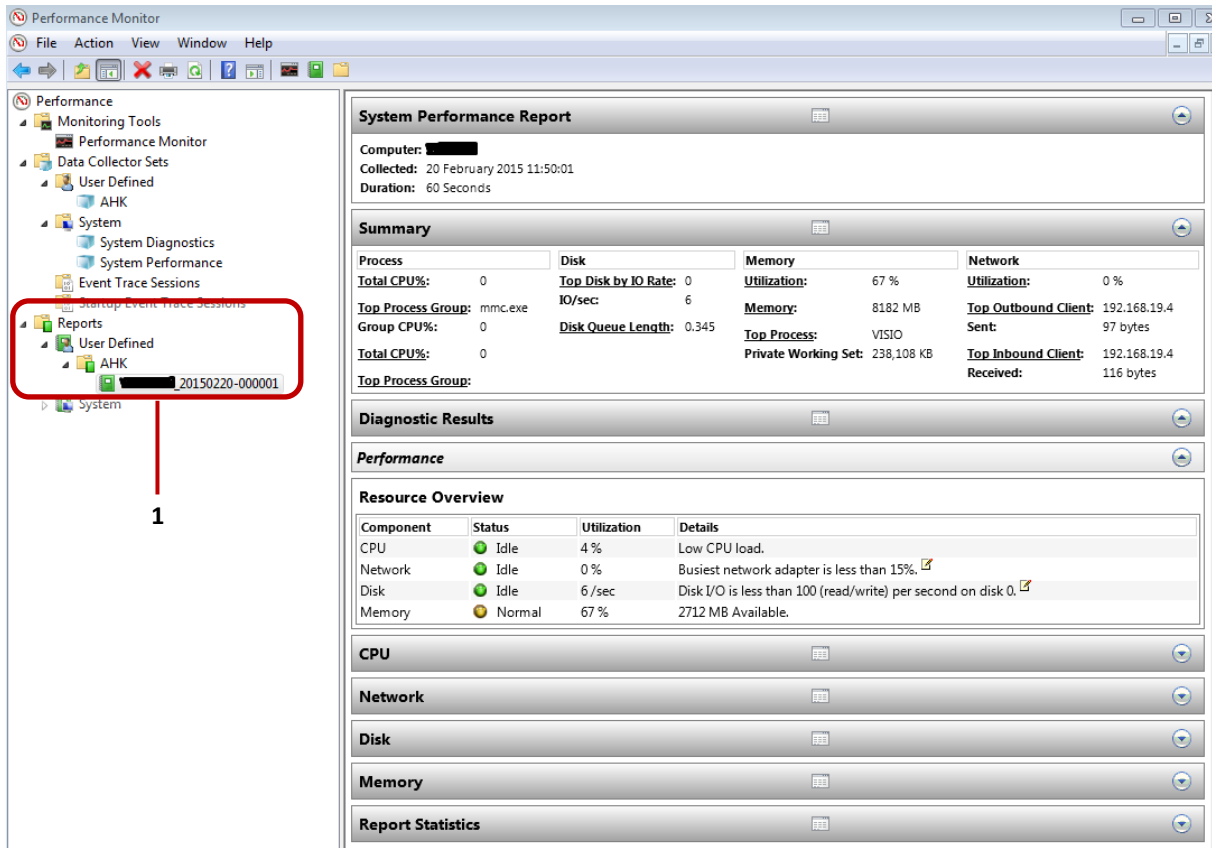


*Properties dialog, Stop Condition tab*

## 4 View the report

To view the system performance report for the new Data Collector Set:

1. In Performance Monitor, expand the Reports branch.
2. Browse to the User Defined > AHK report (where 'AHK' is the name of the data set you specified in step 4a on [page 3](#)).



The screenshot shows the Performance Monitor application window. The left-hand navigation pane is expanded to show the 'Reports' folder under 'User Defined'. A red box highlights the 'Reports' folder, and a red arrow points from it to the number '1' below. The main pane displays the 'System Performance Report' for the 'AHK' data collector set, collected on 20 February 2015 at 11:50:01, with a duration of 60 seconds. The report includes a summary table, diagnostic results, and a resource overview table.

Process	Disk	Memory	Network
<b>Total CPU%:</b> 0	<b>Top Disk by IO Rate:</b> 0	<b>Utilization:</b> 67 %	<b>Utilization:</b> 0 %
<b>IO/sec:</b> 6	<b>IO/sec:</b> 6	<b>Memory:</b> 8182 MB	<b>Top Outbound Client:</b> 192.168.19.4
<b>Top Process Group:</b> mmc.exe	<b>Disk Queue Length:</b> 0.345	<b>Top Process:</b> VISIO	<b>Sent:</b> 97 bytes
<b>Group CPU%:</b> 0		<b>Private Working Set:</b> 238,108 KB	<b>Top Inbound Client:</b> 192.168.19.4
<b>Total CPU%:</b> 0			<b>Received:</b> 116 bytes
<b>Top Process Group:</b>			

Component	Status	Utilization	Details
CPU	Idle	4 %	Low CPU load.
Network	Idle	0 %	Busiest network adapter is less than 15%.
Disk	Idle	6 /sec	Disk I/O is less than 100 (read/write) per second on disk 0.
Memory	Normal	67 %	2712 MB Available.

Performance Monitor: AHK system performance report (1)

## 5 Collect files for analysis by Amulet Hotkey

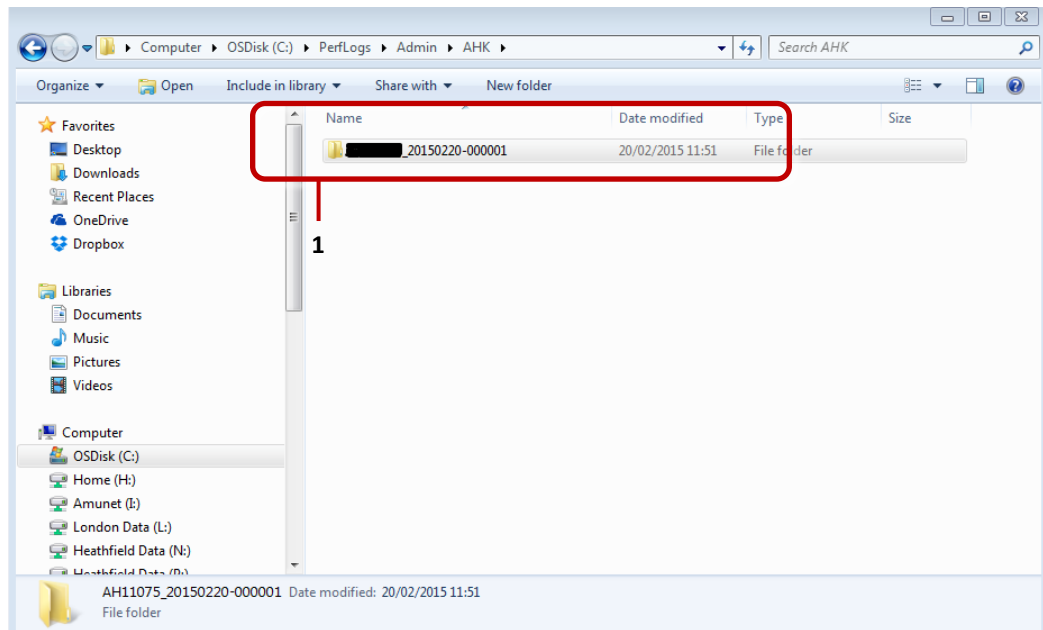
When a Data Collector Set run has completed, you can zip up the collected data.

1. Browse to the directory where the data is saved.

You specified this directory in step 6 on [page 4](#).

The actual data is saved in a subdirectory. The subdirectory name incorporates the server name and the date when subdirectory was created.

2. Zip up the subdirectory.
3. Send the zip file to Amulet Hotkey using the agreed file transfer method.



*Windows Explorer to subfolder containing data for new 'AHK' Data Collector Set (1)*

Copyright ©2015 Amulet Hotkey Ltd. All rights reserved. Information in this document is subject to change. No part of this document may be reproduced through any means including (but not limited to) electronic or mechanical, without express written permission from Amulet Hotkey Ltd. Amulet Hotkey Ltd may have patents, patent applications, trademarks or copyrights or other intellectual property rights covering subject matter in this document. "Amulet Hotkey" and "solutions you can bank on" are registered trademarks of Amulet Hotkey Ltd. Other product names and company names listed within this document may be trademarks of their respective owners.