MiaRec

Performance Monitoring

Revision 1.1 (2014-09-18)

Table of Contents

1 Purpose

This guide describes the configuration procedures required for monitoring performance of MiaRec recoding server.

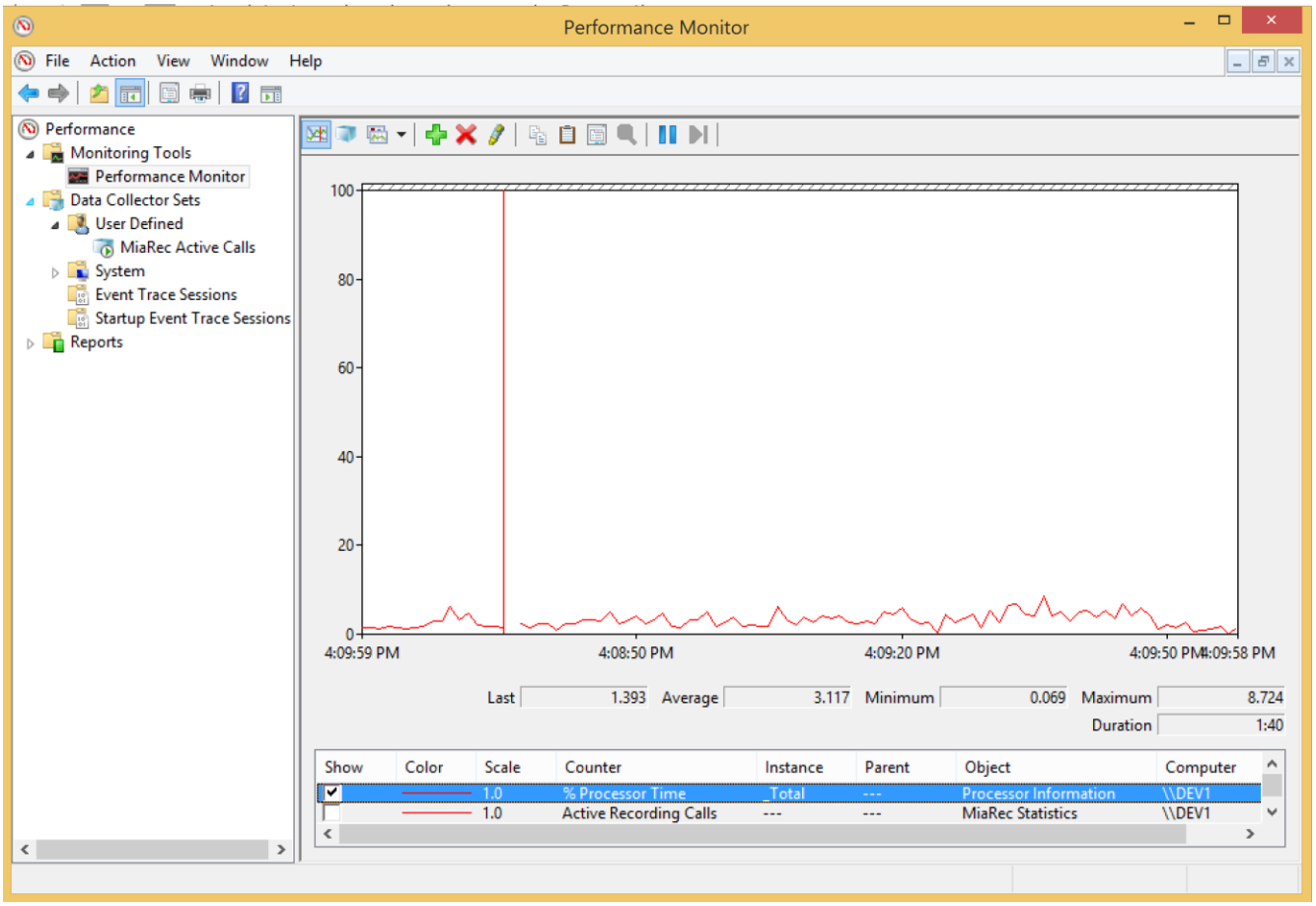
2 How it works

MiaRec software provides a number of performance metrics, which can be accessed with Windows Performance Monitor.

To launch Windows Performance Monitor

- Click **Start**, click in the **Start Search** box, type **perfmon**, and press ENTER.

Performance Monitor provides a visual display of built-in Windows performance counters, either in real time or as a way to review historical data. You can monitor application and hardware performance in real time, customize what data you want to collect in logs, define thresholds for alerts and automatic actions, generate reports, and view past performance data in a variety of ways.



3 A list of MiaRec performance counters

MiaRec software provide the following performance counters:

3.1 Group "MiaRec Statistics"

- **MiaRec Statistics \ Active Recording Calls**

  The total number of active calls in recording state

- **MiaRec Statistics \ Active Recording Calls Peak Last 15 min**

  The peak number of active calls for last 15 minutes

- **MiaRec Statistics \ Active Recording Calls Peak Today**

  The peak number of active calls for today

- **MiaRec Statistics \ Active Recording Calls Peak Yesterday**

  The peak number of active calls for yesterday

- **MiaRec Statistics \ Recorded Calls**

  The total number of recorded calls since application restart (excluding the active calls)

- **MiaRec Statistics \ New Calls/sec**

  The number of new calls detected per second

- **MiaRec Statistics \ Passive Network Packets/sec**

  The number of passive network packets processed

- **MiaRec Statistics \ Passive Network Bytes/sec**

  The number of passive network packets processed in bytes

- **MiaRec Statistics \ Passive Network Validating Queue Length**

  The number of passive network packets in queue waiting for validation

- **MiaRec Statistics \ Passive Network Processing Queue Length**

  The number of passive network packets in queue waiting for processing

- **MiaRec Statistics \ Active Recording Calls**

  The total number of active calls in recording state

- **MiaRec Statistics \ Active Recording Calls**

The total number of active calls in recording state

- **MiaRec Statistics \ Active Recording Calls**

  The total number of active calls in recording state

3.2 Group "MiaRec Call Statistics Per-State"

This group of performance counters displays statistics per call state

- **MiaRec Call Statistics Per-State \ Active Calls (Per-State)**

  The total number of active calls per state.

  Supported states:

  - RecordedNormal
  - RecordedLicenseOveruse
  - IgnoredByFilters

- **MiaRec Call Statistics Per-State \ Completed Calls (Per-State)**

  The number of completed calls per-state (excluding the active ones).

  Supported states:

  - RecordedNormal
  - RecordedLicenseOveruse
  - IgnoredByFilters
  - DeletedByFilters

3.3 Group "MiaRec Call Statistics Per-Protocol"

This group of performance counters displays statistics per voip protocol

- **MiaRec Call Statistics Per-Protocol \ Active Calls (Per-Protocol)**

  The number of active calls per protocol (recording and ignored)

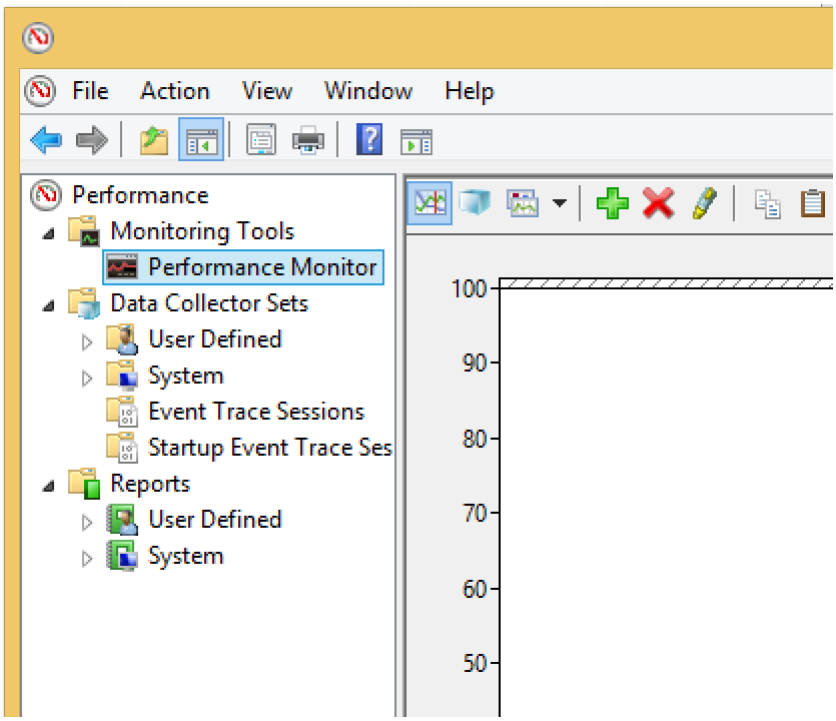
  Supported protocols:

  - Unkown
  - SIP
  - H.323
  - SCCP
  - MGCP
  - MGCP PRI Backhaul
  - SIPREC

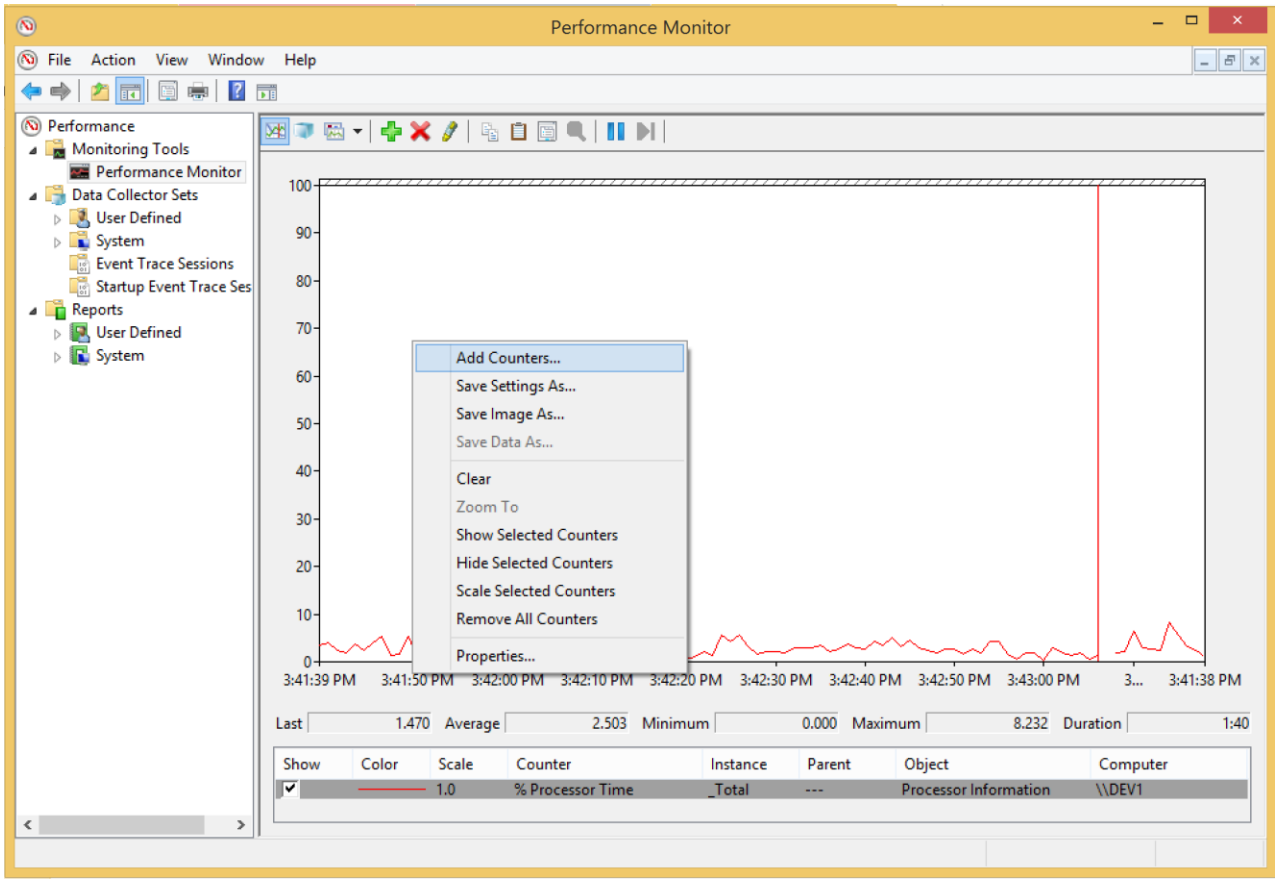
- Cisco Built-in-Bridge
- Avaya H.323
- Avaya TSAPI
- Avaya TSAPI Uknown
- UNISTIM

4 View statistics in real-time

1) Launch Performance Monitor:
    - Click **Start**, click in the **Start Search** box, type **perfmon**, and press ENTER
2) In the navigation tree, expand Monitoring Tools , and then click Performance Monitor.



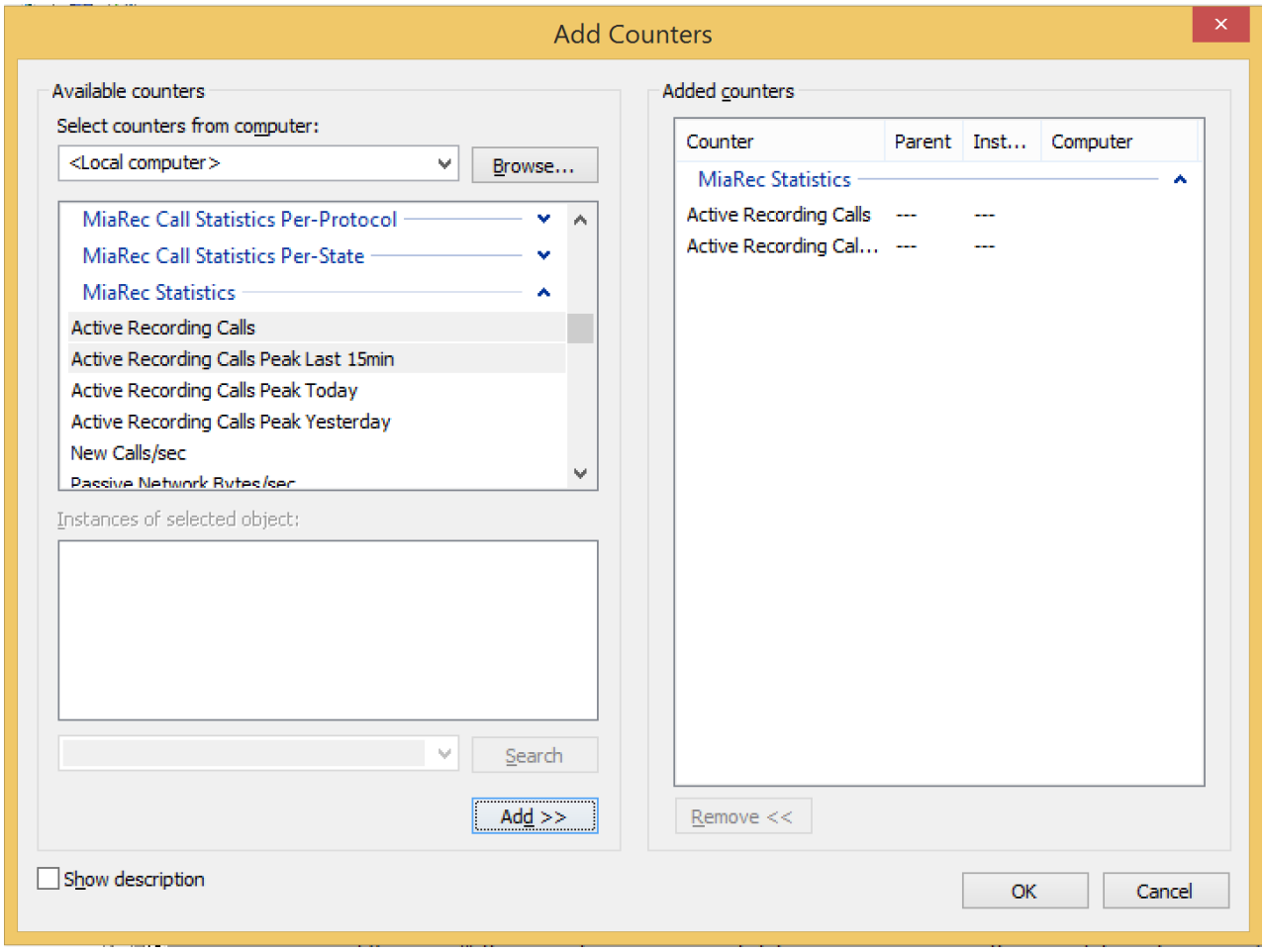
3) Right-click in the Performance Monitor display area and click **Add Counters...**



4) Inside list "Available counters" locate "MiaRec…" counters.
Select one or more counters and click "Add >>" button.
And then click OK.

Different performance counters are available.
On screenshot below two counters are selected:

- Active Recording Calls
- Active Recording Calls Peak Last 15 min

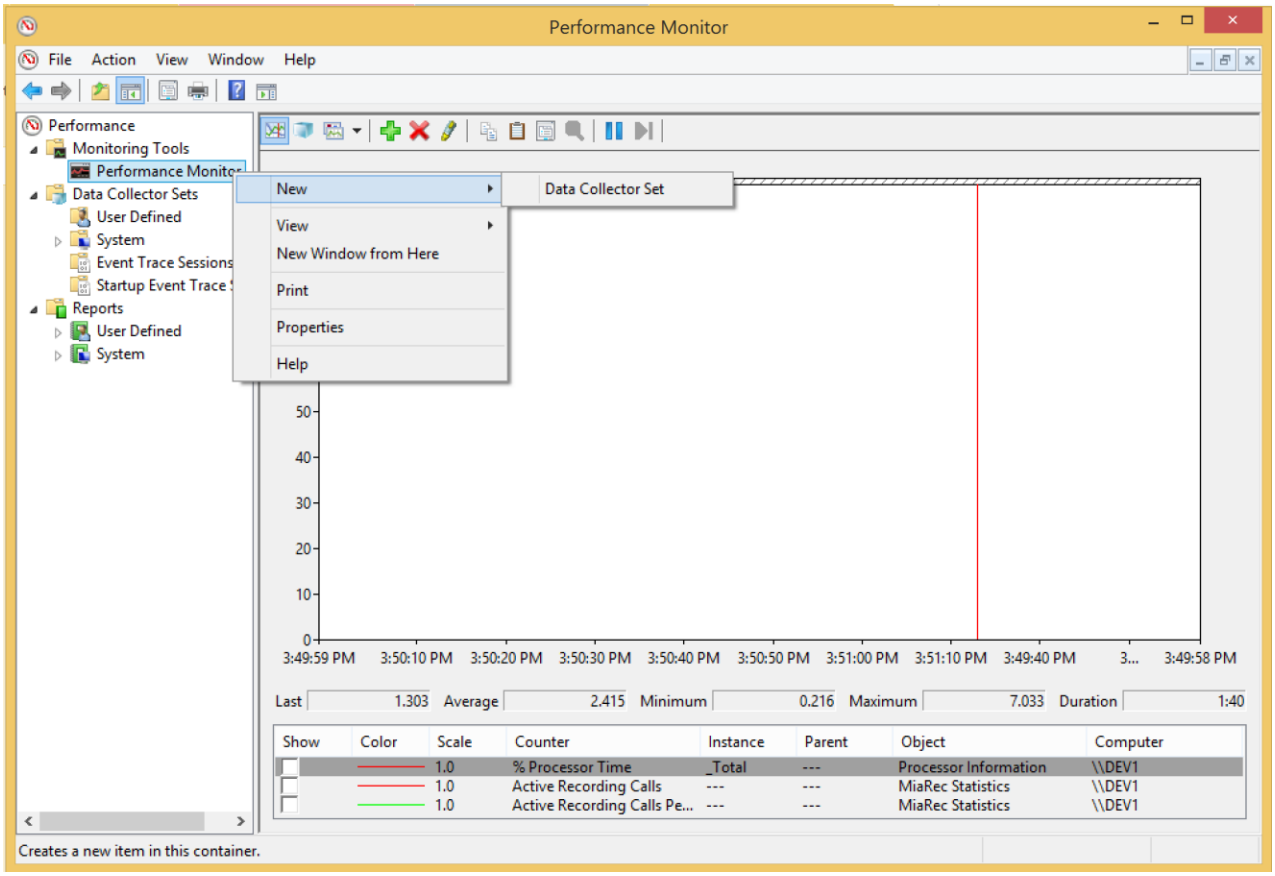


5) Now you can view statistics from MiaRec software in real-time

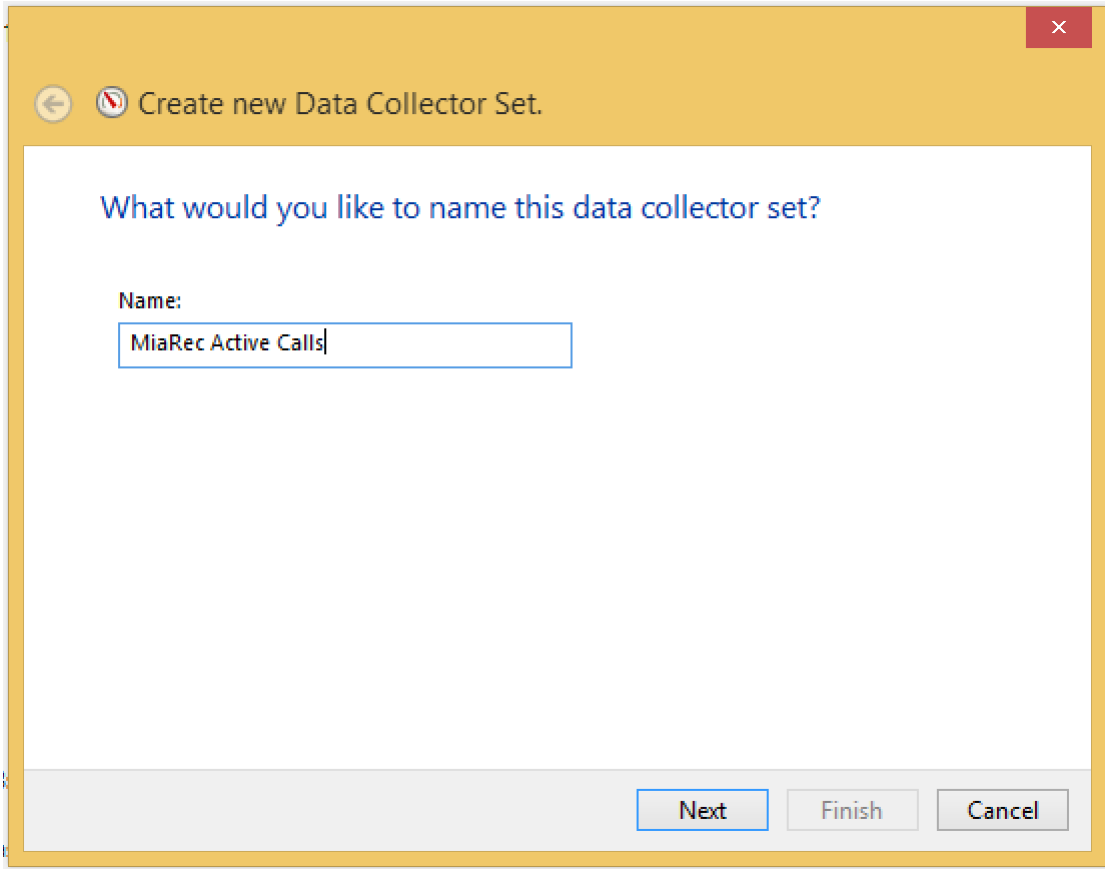
5 Collect historical data for analyzing

It is possible to collect historical data for long period, for example, a few days.

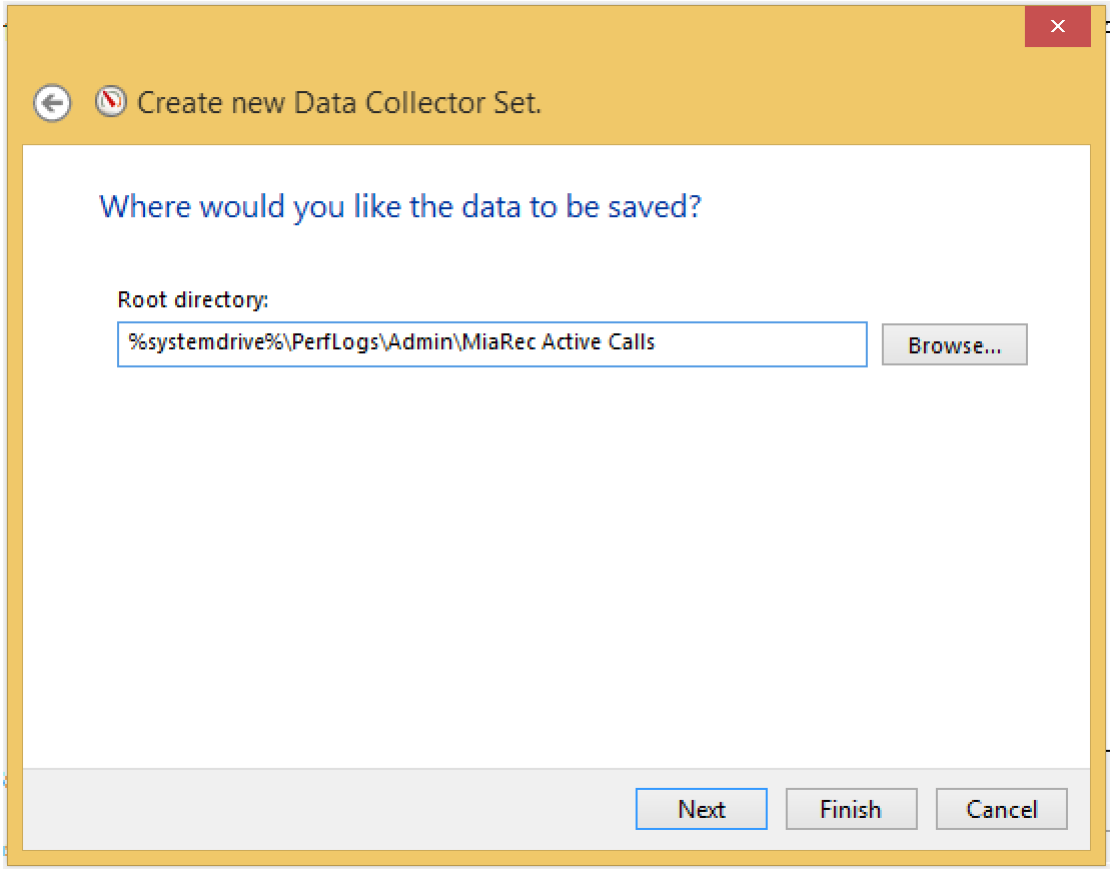
1) Launch Performance Monitor:
    - Click **Start**, click in the **Start Search** box, type **perfmon**, and press ENTER
2) In the navigation tree, expand Monitoring Tools , and then right-click Performance Monitor and select from menu New -> Data Collector Set.



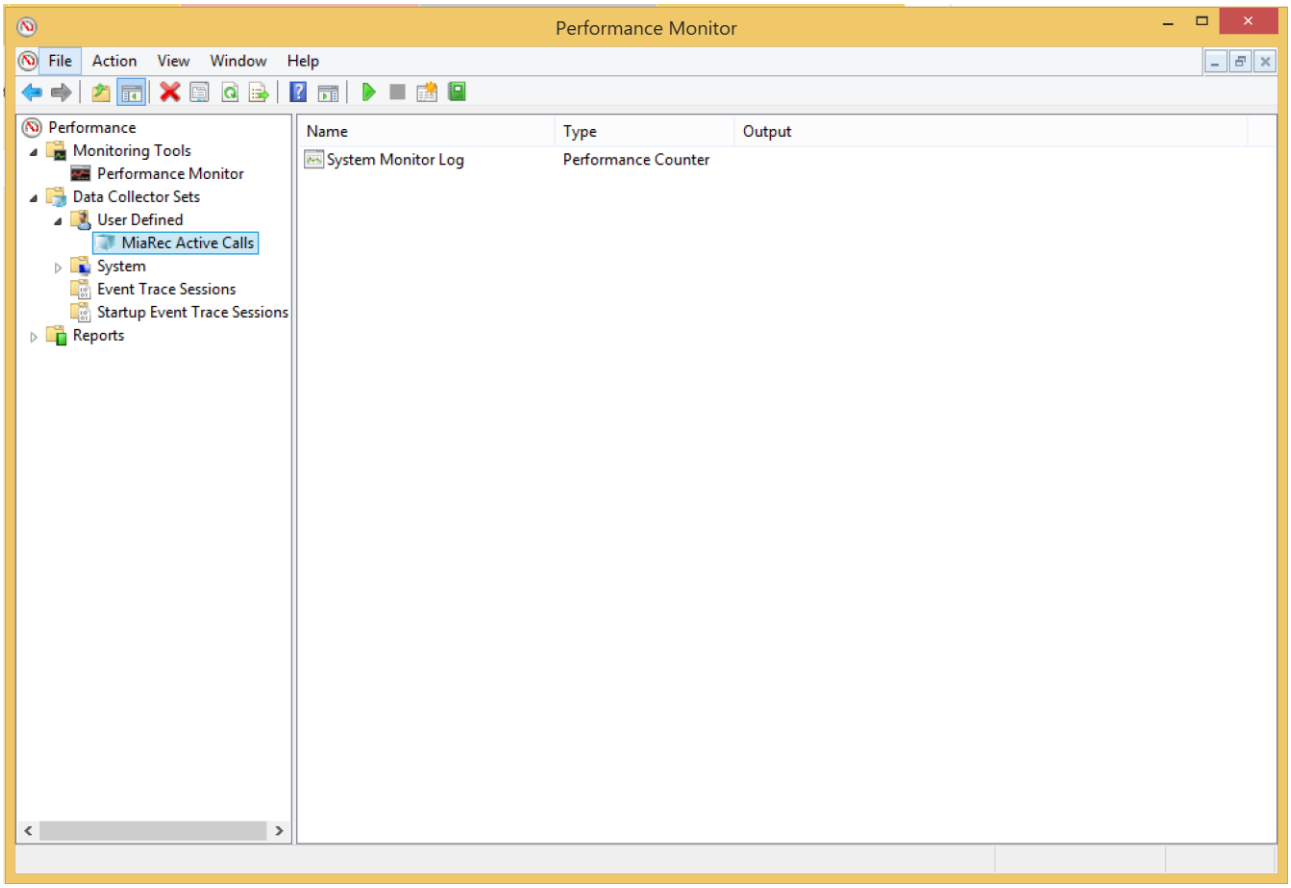
3) Enter name for new data collector set



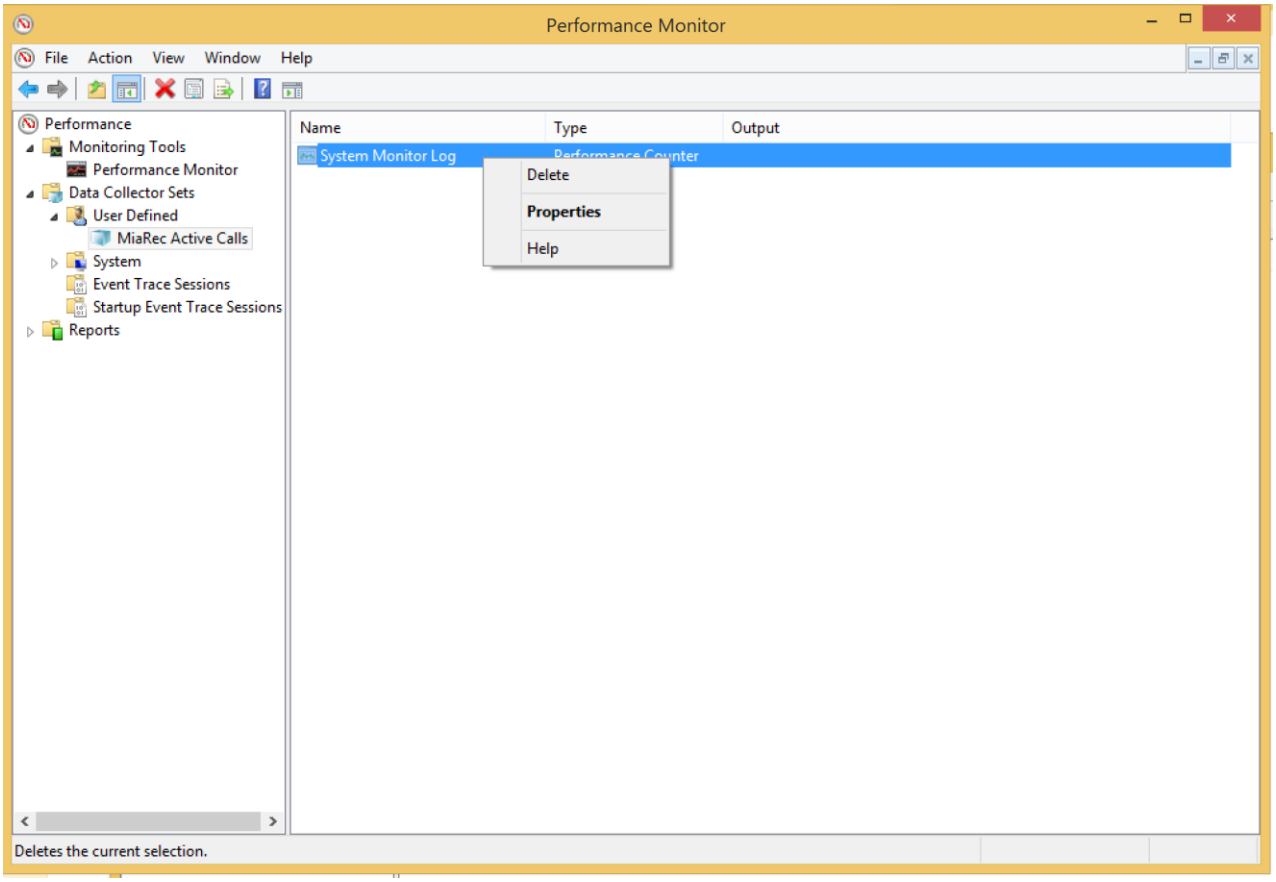
4) Select location for data files



5) Select newly created Data Collector Set in the left pane.

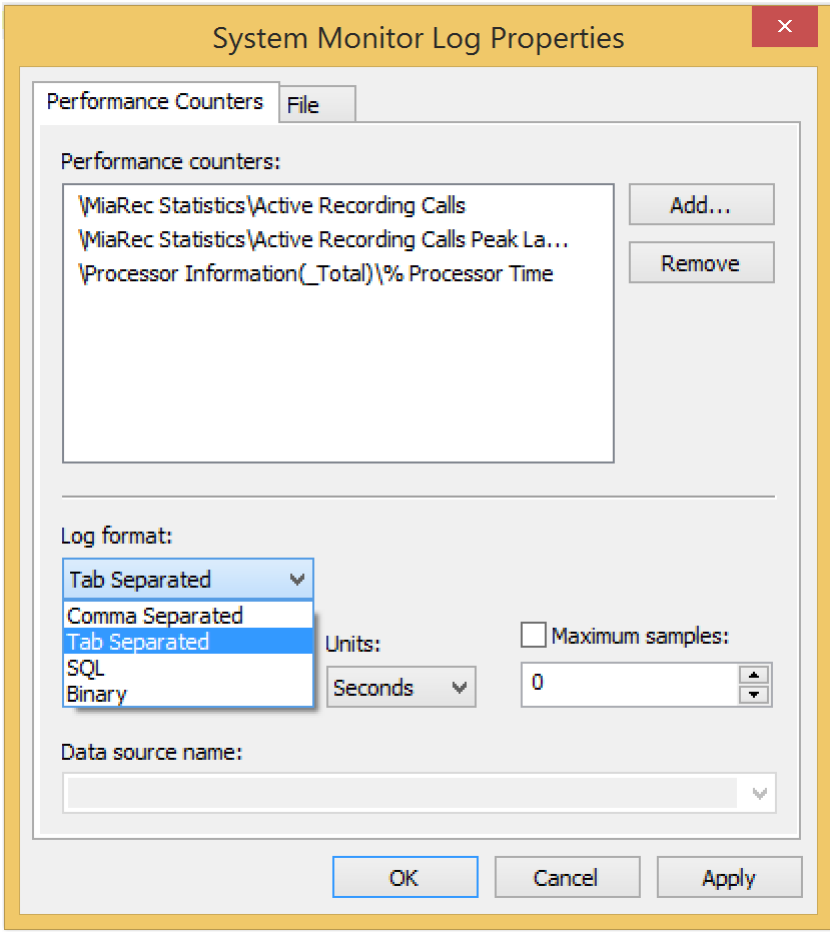


6) Right click on System Monitor Log in right pane and select **Properties**.

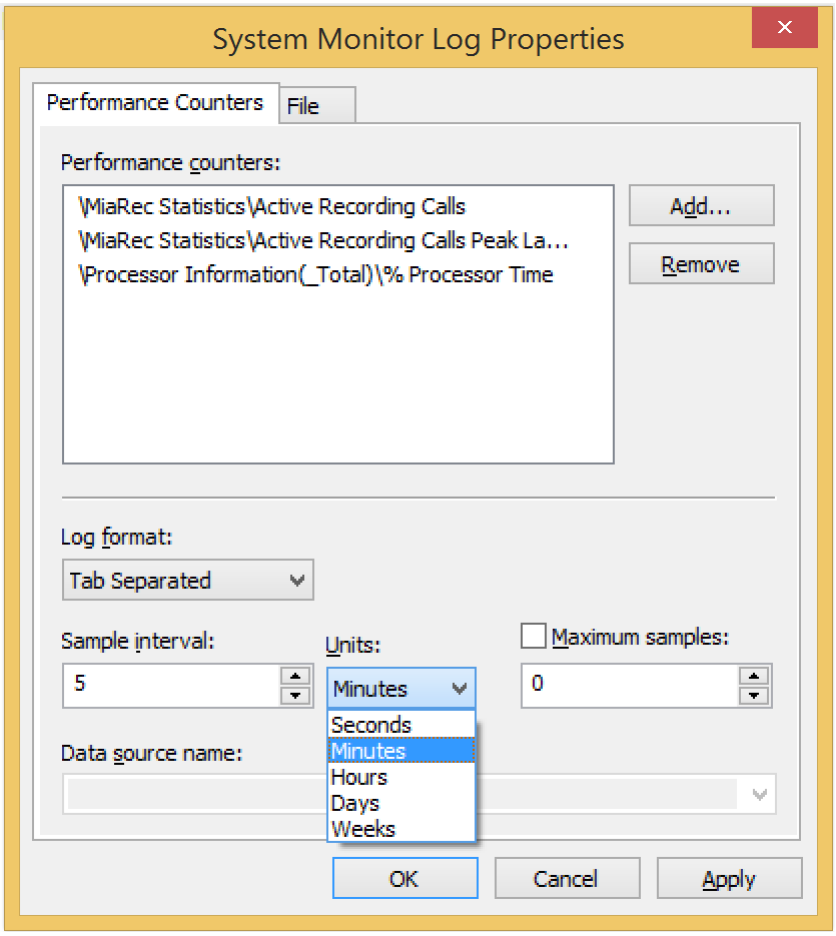


7) Click "**Add...**" to select the desired performance counters in main window.

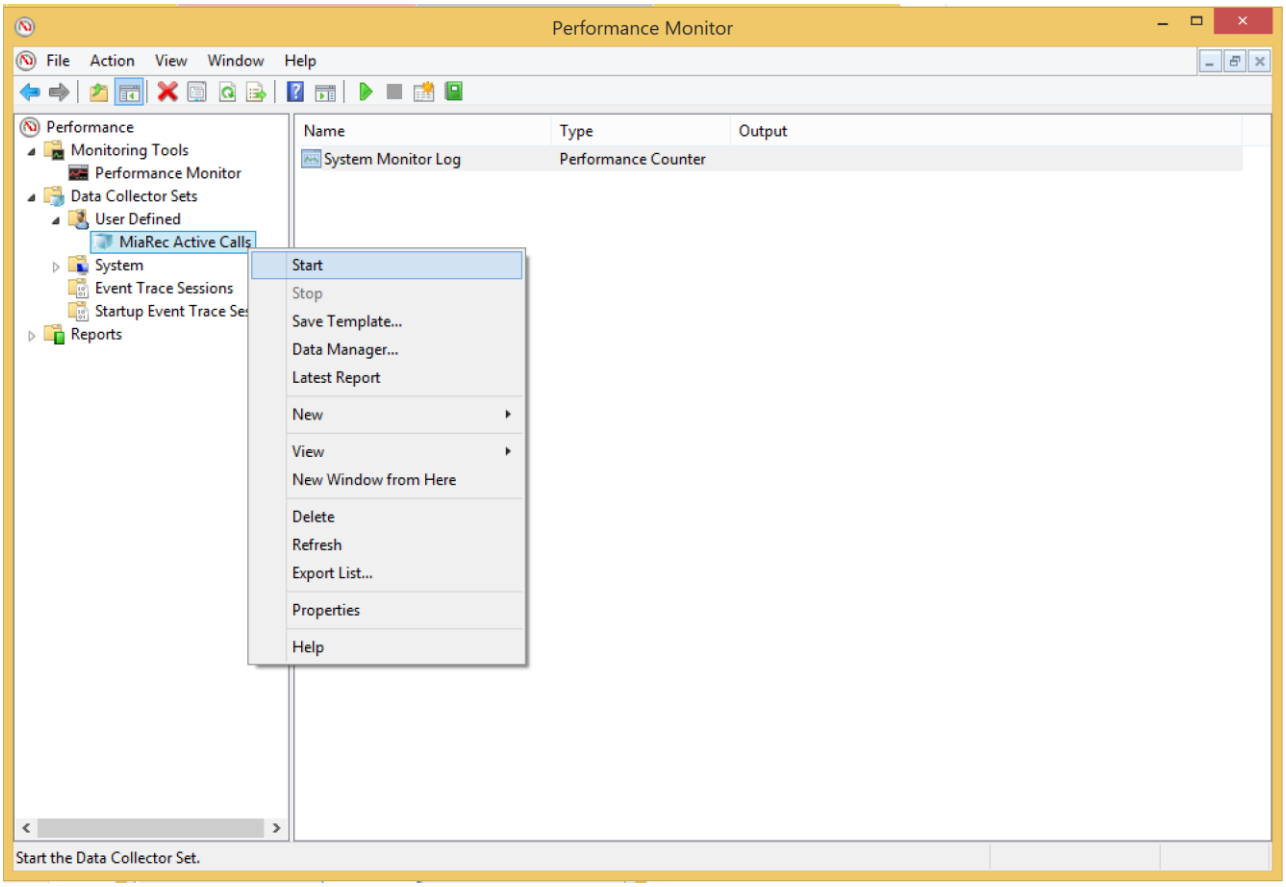
8) Change format to **Tab separated** or **Comma Separated**. This will allow to open the resulting file in Excel application for analyzing.



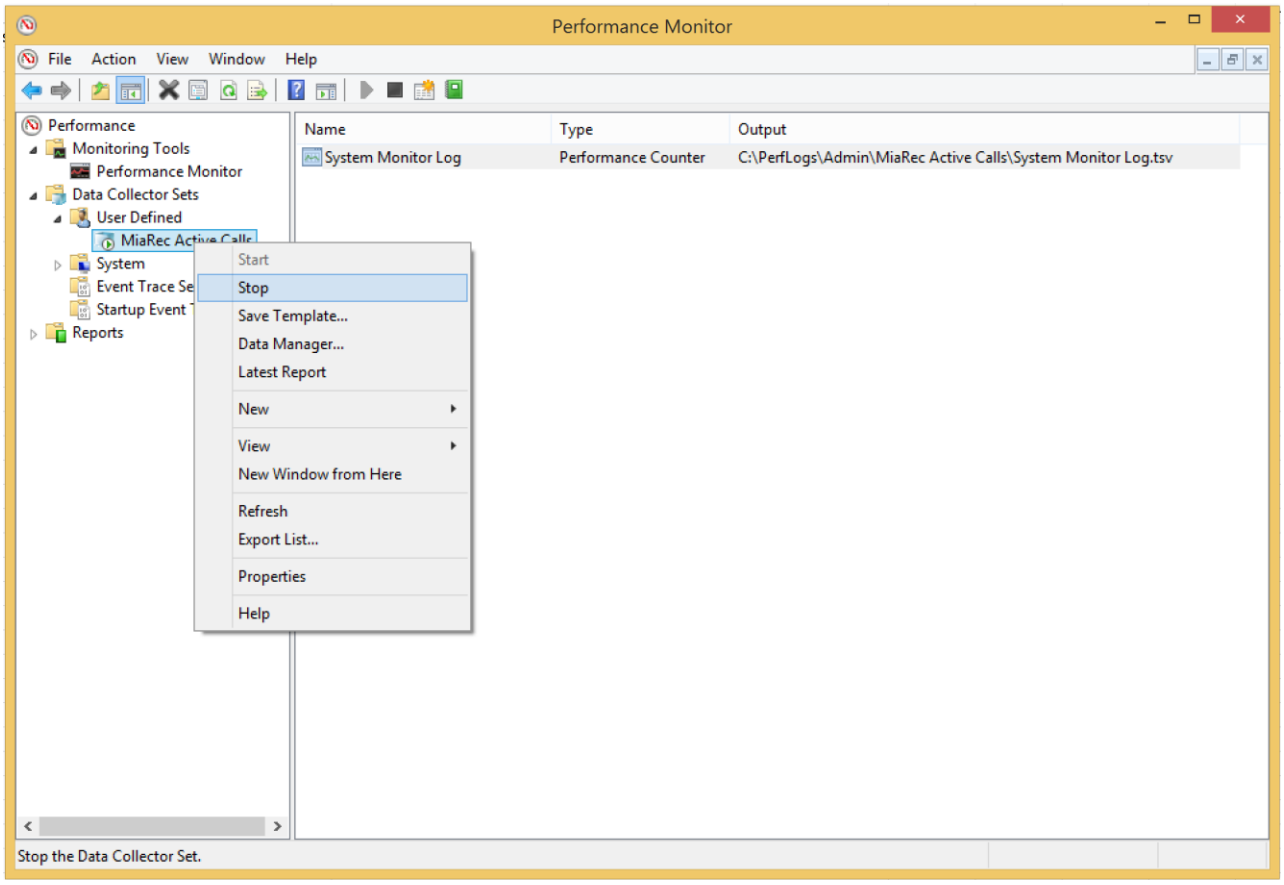
9) Change sample interval. Recommended interval is 5 minutes.



10) Now you can start collecting data. Select Start from right-click menu.



11) When you decide to finish collecting log information, select Stop from right-click menu.



12) The resulting data file can be opened for analyzing in Excel application (see next chapter).

6 Using Excel to analyze collected data

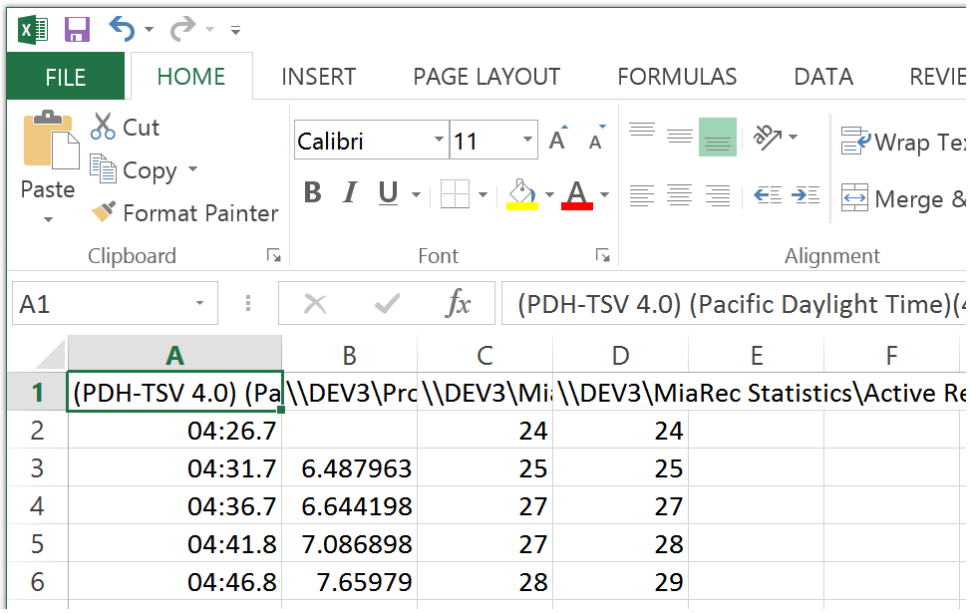
This chapter discusses how to open a *.csv or *.tsv file, apply formatting changes and use Pivot Chart functionality built into Excel to graph the counters. Finally, we will demonstrate how to use date filters to drill deeper into specific time ranges, in order to view the graph data in greater detail.

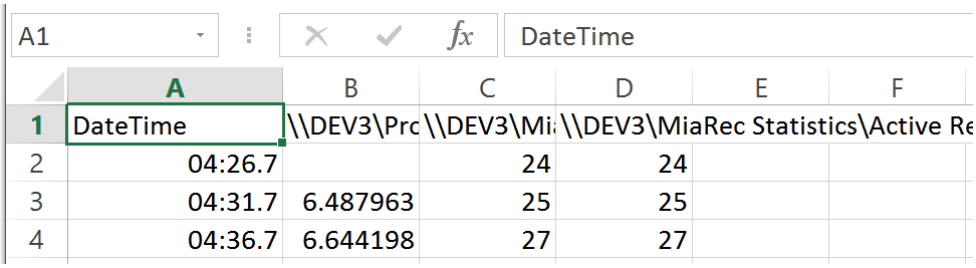
The screenshots and steps below are for Excel 2013, but they should also work for Excel 2007/2010.

6.1 Open performance counter log file in Excel.

Once file is opened, make some formatting changes:

1) Change the text in the A1 cell from **"(PDH-CSV 4.0…**" to simply "**DateTime**"





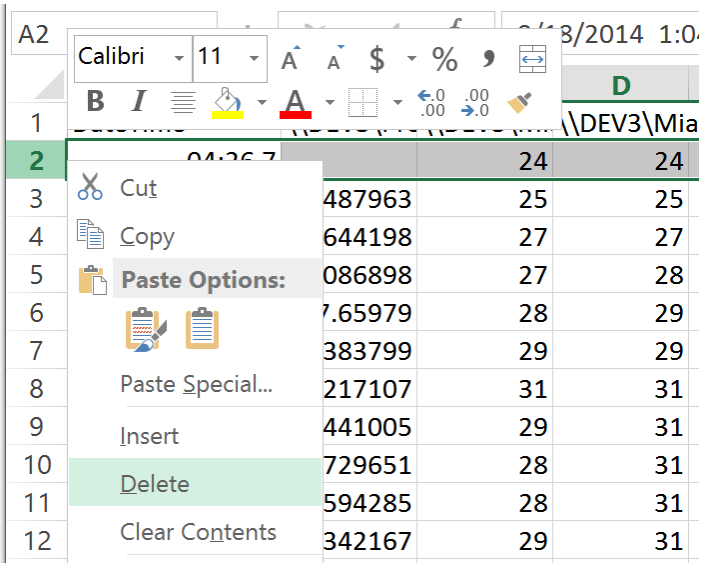
2) You can rename other headers in the first row to make them shorter. By default name of each performance counter contains computer name in the beginning like:

   - \\MyServer\MiaRec Statistics\Active Recording Calls

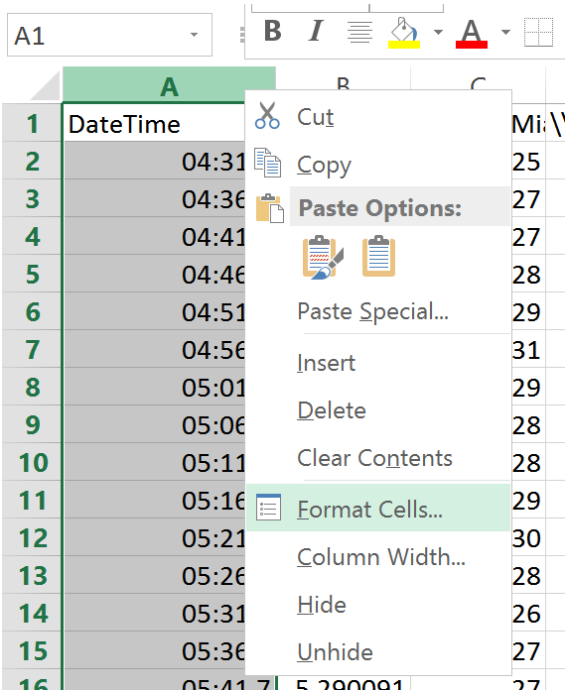
   Remove computer name and keep only name of performance counter, like:

   - MiaRec Active Recording Calls

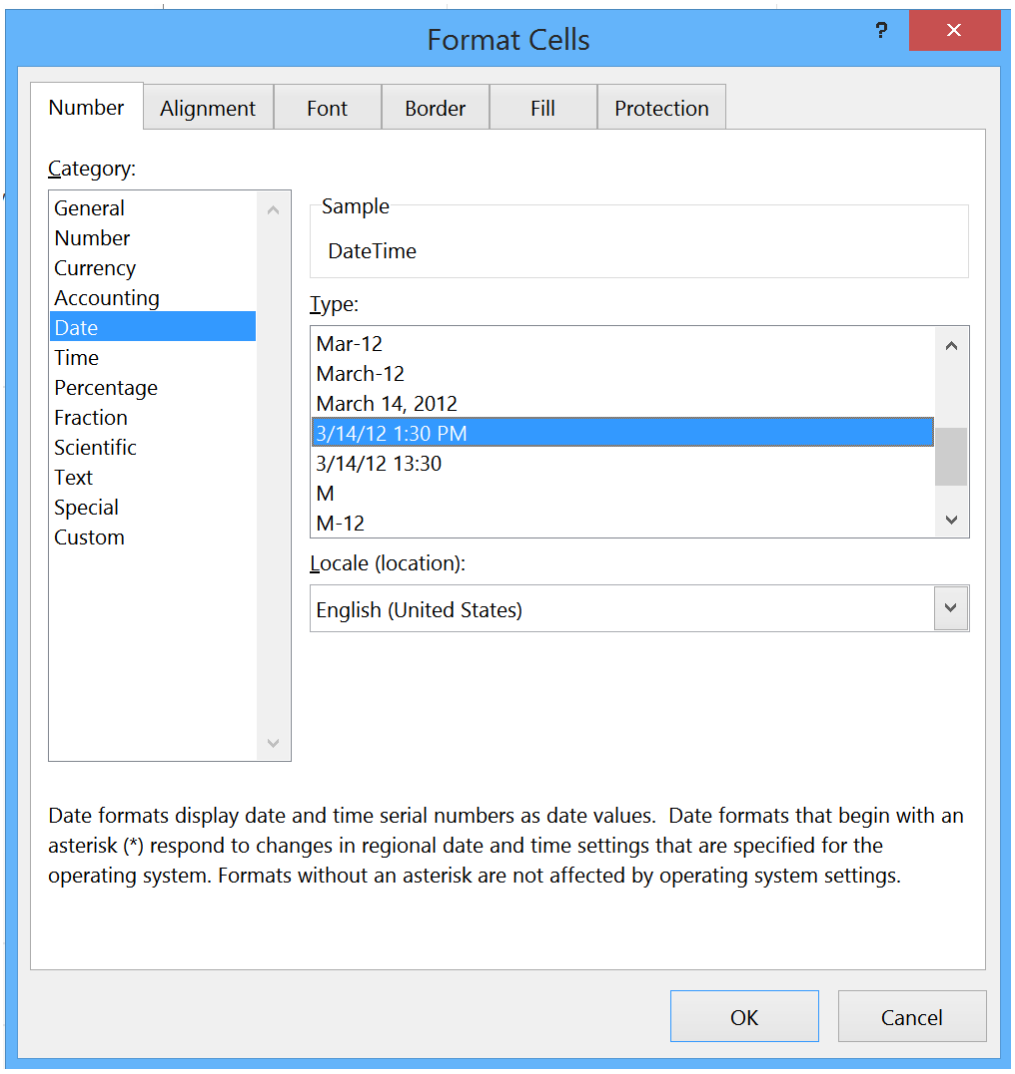
3) Remove row 2 by right clicking on the row number –> "**Delete.**" This row, containing the first row of data, is typically a junk row.



4) Highlight the entire "**A**" column by clicking on the column header, then right-click anywhere in the column –> **Format Cells...**



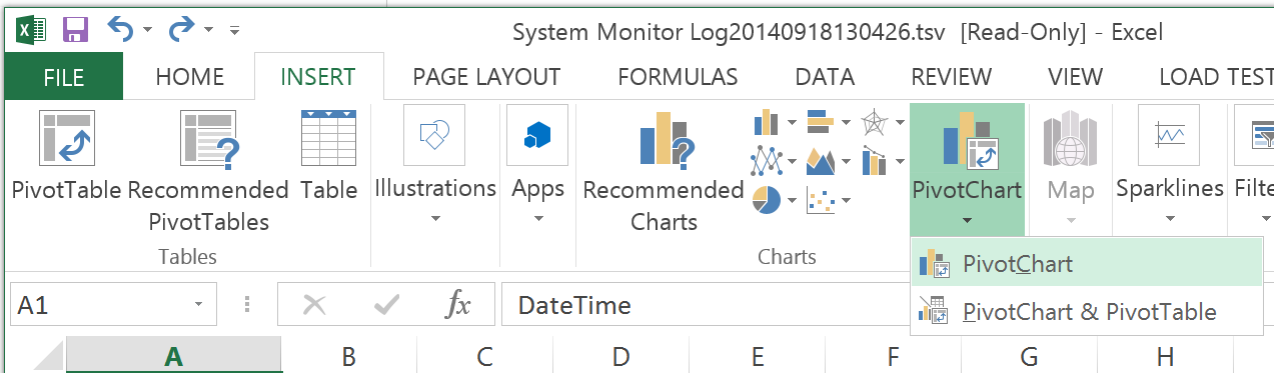
5) On the **Number** tab, select the "**Date**" category and the "**3/14/01 1:30 PM**" type, and click OK.



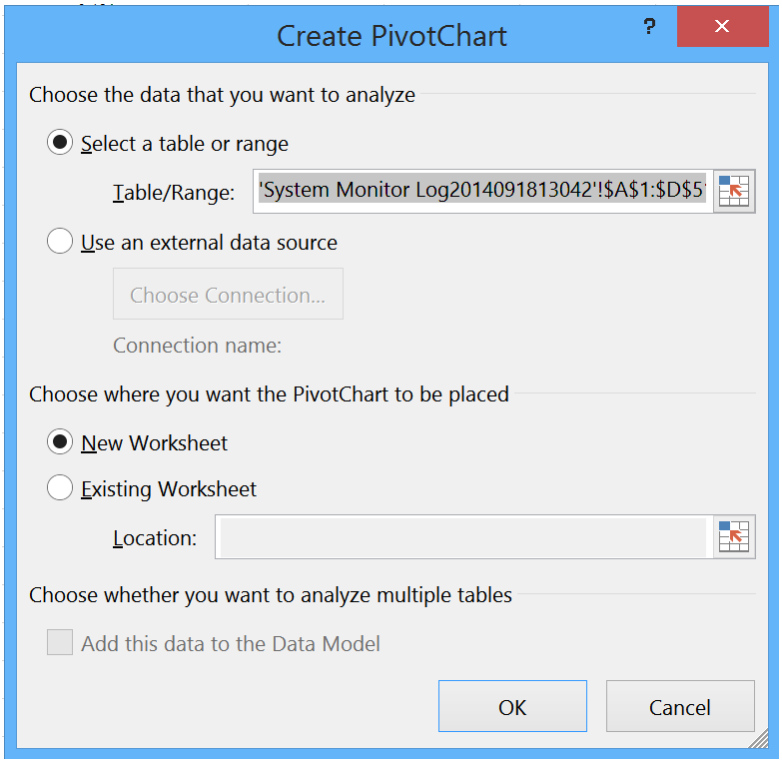
6.2 Create Pivot Chart

1) Select the top left cell (A1)

2) From "**Insert**" menu click on "**PivotChart**" button and select "**PivotChart**" from drop down menu.

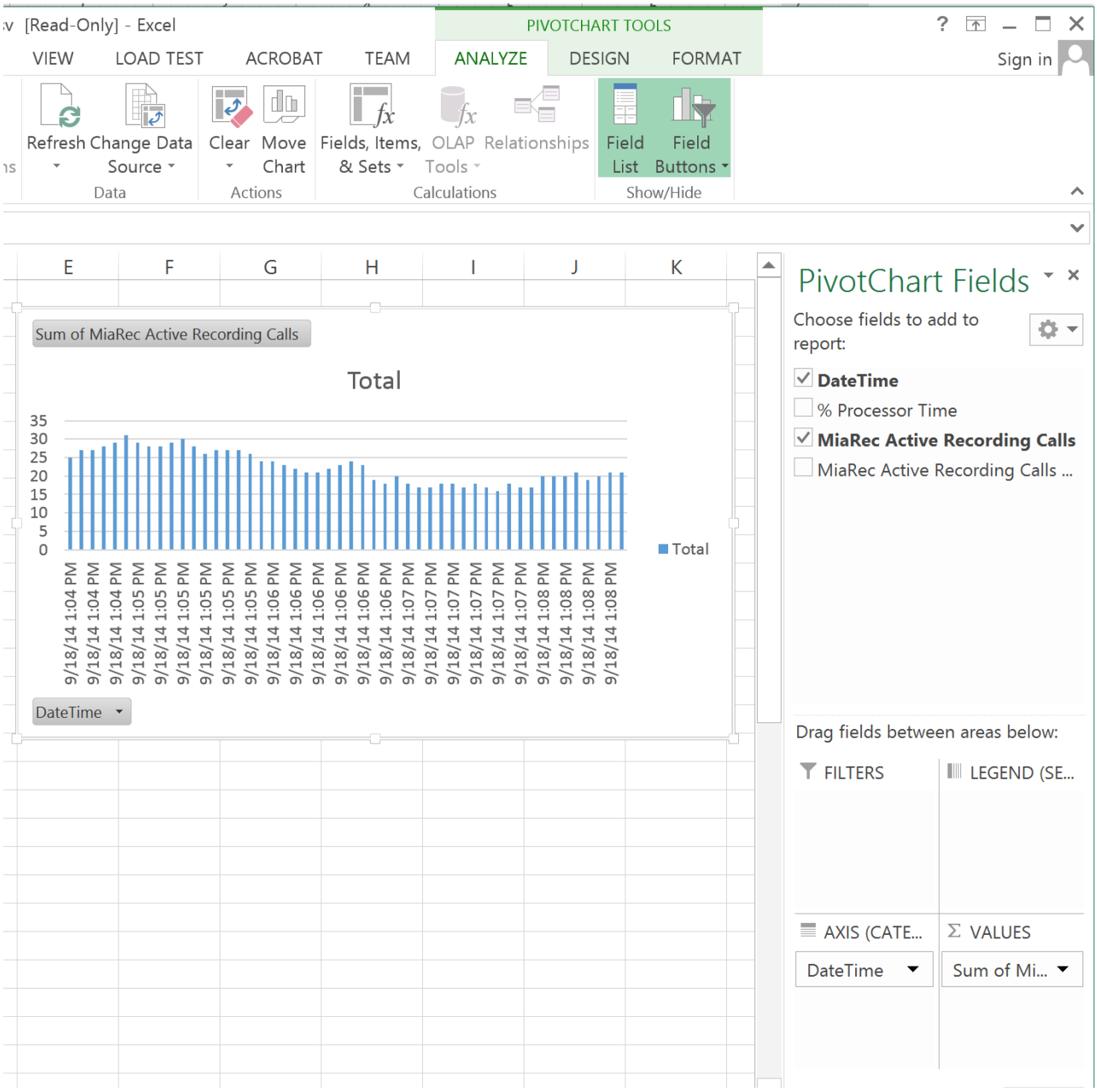


3) You will see dialog "**Create PivotChart**". Click OK.

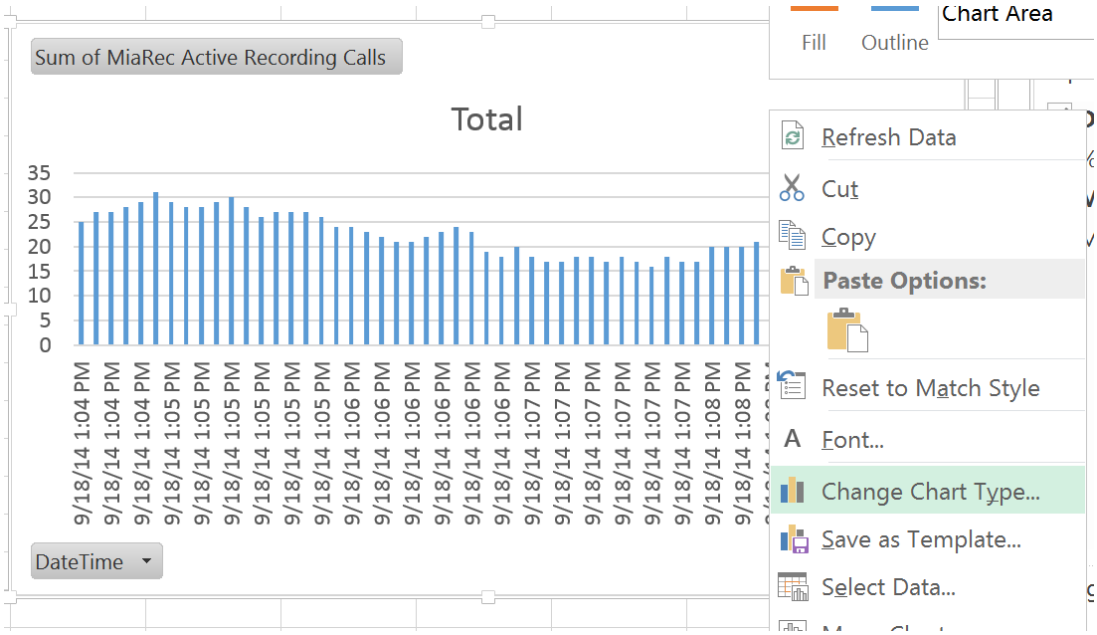


4) On the right pane "**PivotChart Fields**" select DateTime field and those performance counters, which you would like to see on graph.

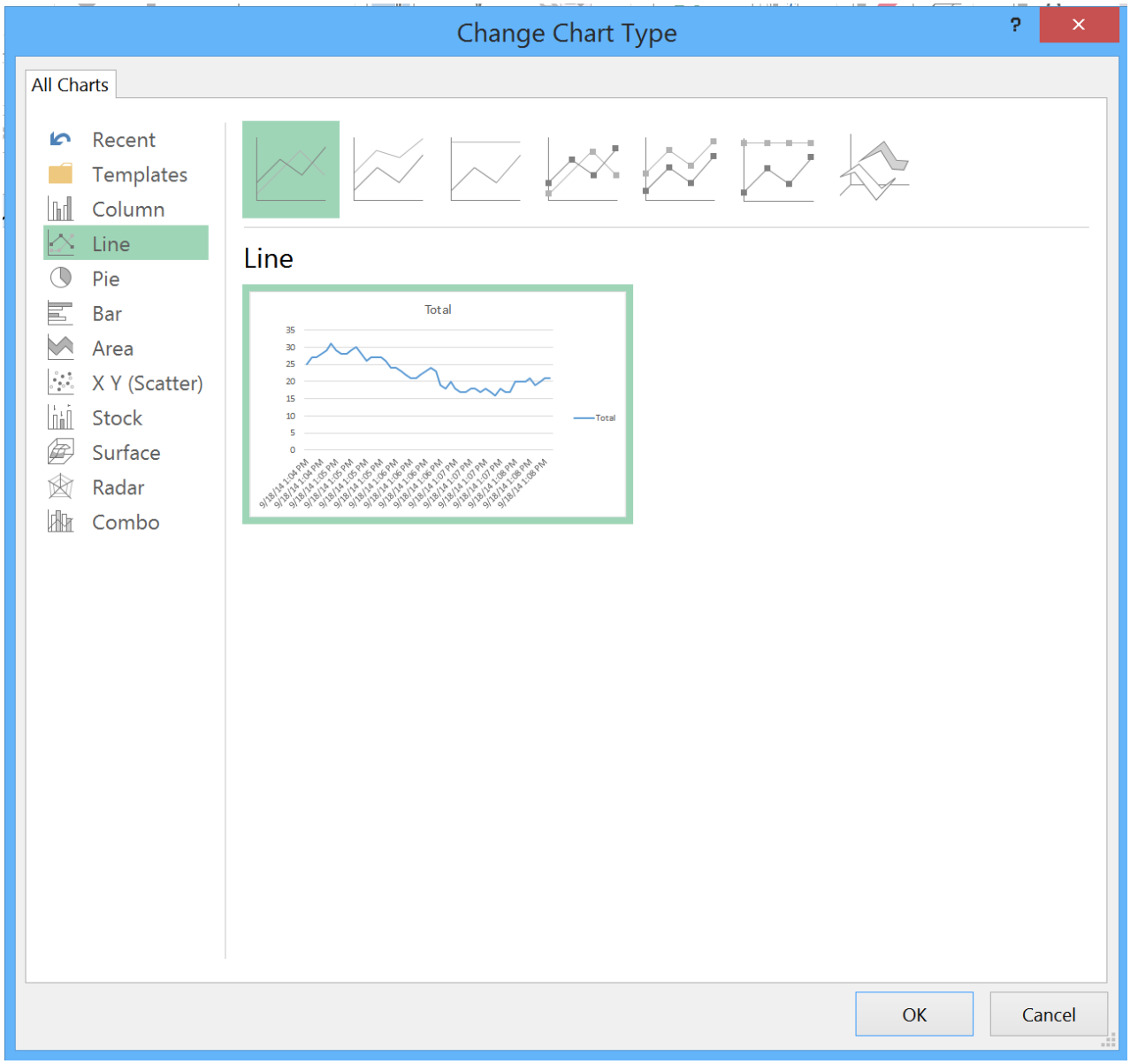
   Make sure that "**DateTime**" field appear in "**AXIS"** pane in right bottom corner and other fields appear in **"Σ VALUES**" pane. If not, then drag fields between panes.



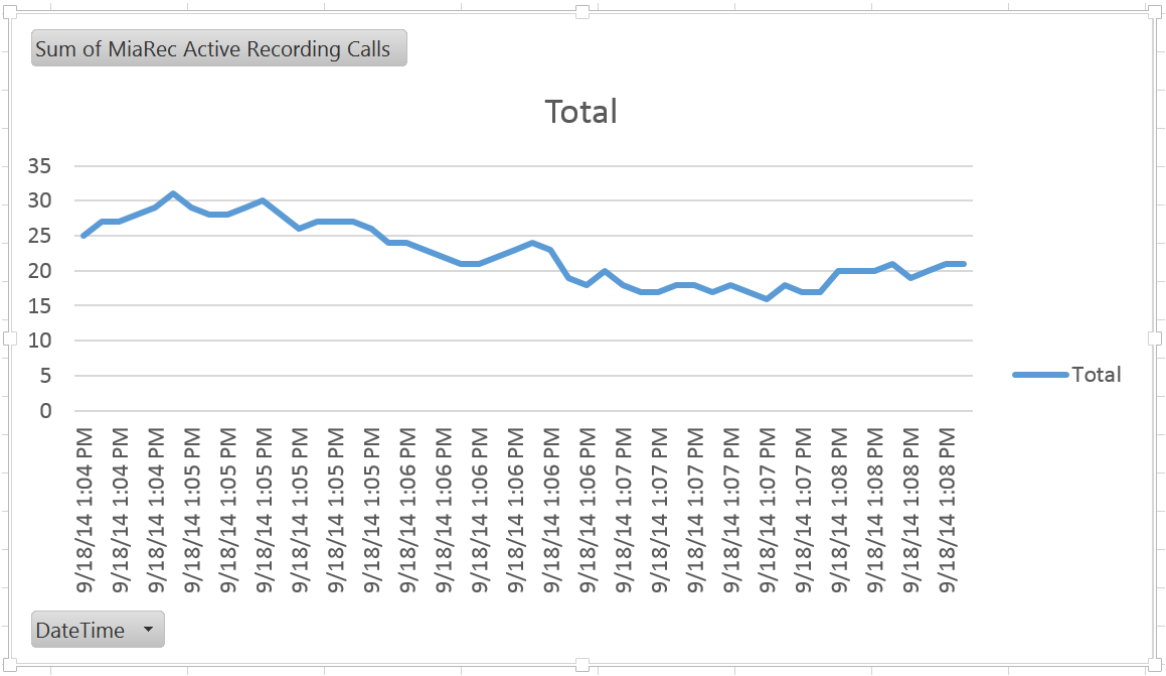
5) Right-click inside chart area and select "**Change Chart Type...**"



6) Select "**Line**" as a chart type.

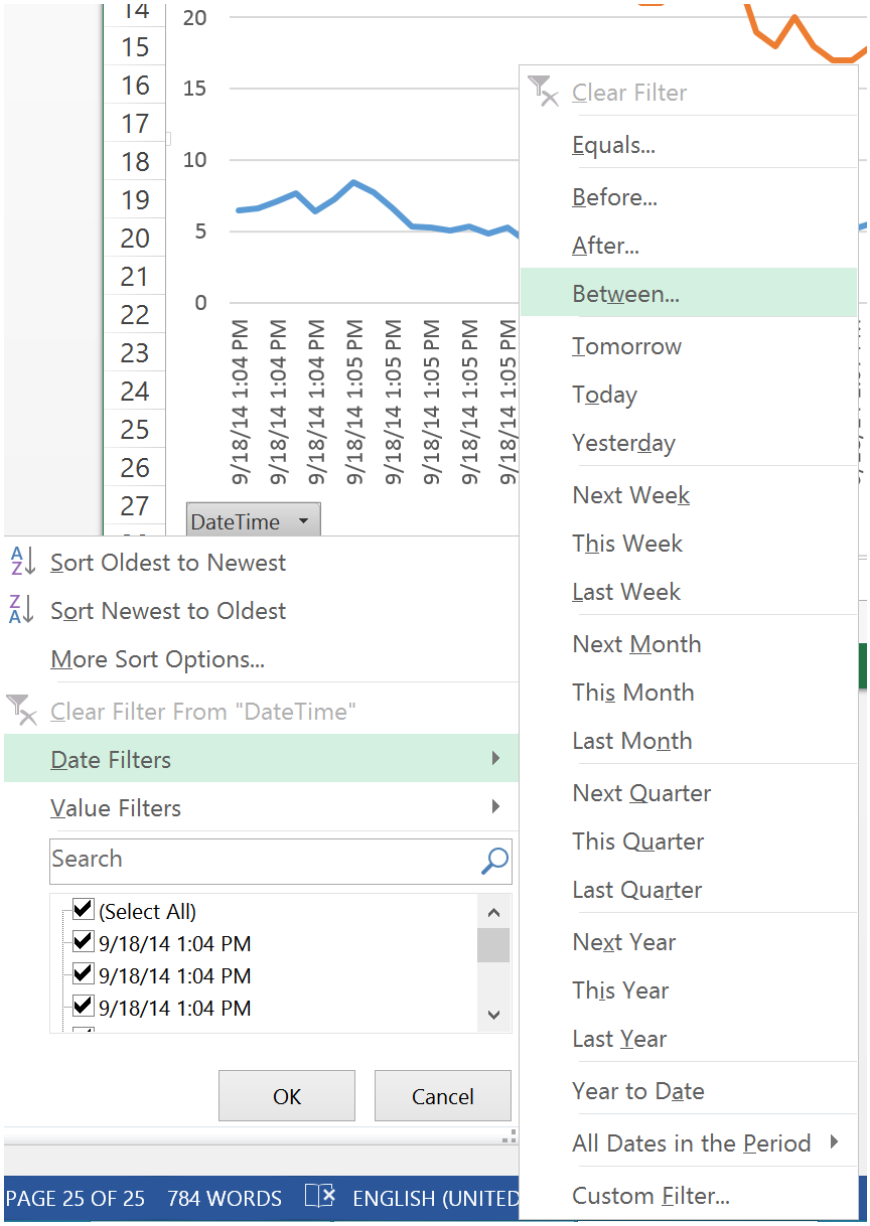


7) Click OK. Now you will have graph showing changes in performance counters in time.

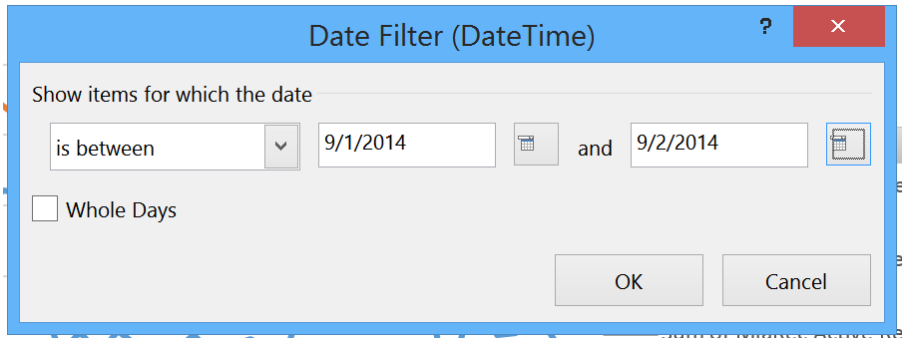


6.3 Drilling deeper into specific time ranges.

1) To see on graph values filtered by date range, click on "**DataTime**" button in left bottom corner of graph and select "**Date Filters**" -> "**Between...**"



2) And specify particular date range:



3) Now the graph will show values for specific date range.