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# Sightline™ Power Agent™ Software for Windows 2008R2, Windows 2012 and Windows 2016 Servers

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## Introduction

These release notes describe the Sightline Power Agent for Windows 2008, Windows 2012 and Windows 2016 Servers for 64-bit systems. This software is a component of the Sightline Performance Management Solution. It is based on previous releases of the Sightline 6.5.x Power Agent for Windows systems.

## Power Agent

### Compatibility

This Power Agent release supports the Windows 2008, Windows 2012 and Windows 2016 operating system on all 64-bit processors that support this operating system. This release of the Sightline Power Agent for Windows Systems requires a 6.5 AccessKey specifically for this operating system. Please contact your local Sightline Systems representative for a new AccessKey.

This release is compatible with the currently supported versions of Sightline Enterprise Data Manager (EDM) and Expert Advisor/Vision (EA/V).

### Recommendations

#### **Start and stop Sightline applications**

We recommend that you start and stop the Sightline applications by going through the **Start | Programs | Sightline | Power Agents | Start Agents** or **Start | Programs | Sightline | Power Agents | Stop Agents** shortcuts built into the program when the software application is installed.

#### **Uninstall Using Programs and Features in the Control Panel**

Should it become necessary to uninstall the Sightline Power Agent from your Windows 2008 or Windows 2012 system, we recommend that you uninstall the software by going through the **Start | Control Panel | Programs and Features** menu item.

## Upgrading a previous Sightline 6.5.32.x Power Agent Installation

To upgrade from an existing Sightline 6.5.32.x Power Agent installation, start the **msi** file as in normal first-time installations. The install kit will detect the previous version and prompt for the upgrade.

## Supported Monitored Applications

The Sightline Power Agent for Windows Systems includes support for many applications for additional monitoring, including:

- AppFabric
- BizTalk
- Component Services
- Log File Interface Agent
- Microsoft Exchange

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- Microsoft SQL Server 2008, 2010, 2012, 2016, and 2017. Select the Sightline Interface Agent for MS SQLServer and the Power Agent will determine the version being monitored.
  - SNMP v2
  - Hyper-V 2008
  - IIS Log 6, 7 and 8
  - NCache
  - Network Traffic
  - Oracle 10, Oracle 11g, Oracle 12
  - SMI-S compliant storage arrays
  - SNMP
  - Stratus ftScalable storage arrays
  - WebSphere Message Broker
  - XenApp

For more information about these monitoring options, contact your Sightline software representative.

## Version 6.5.32.33 (June 2018)

### New Features

#### Support for MS SQL Server 2017 (#25003)

This version of the Power Agent includes an updated Interface Agent for MS SQL Server that supports SQL Server 2017. In addition, individual Interface Agents to support different versions of SQL Server are not provided; when installing the Power Agent, select the SQL Server Interface Agent and the installation will determine the SQL Server version being monitored.

### Changes

#### Timeout Logging

When the Power Agent times out while checking on a perfdata element during startup, the timeout and related PerfDataIndex will be logged.

## Version 6.5.32.32 (November 2017)

### New Features

#### New NCache Interface Agent (#24700)

The NCache Interface Agent is included in this version of the Windows Power Agent. NCache is a fast and scalable Open Source distributed cache for .NET applications. The NCache Interface Agent must be enabled in your AccessKey; see your Sightline representative for more information.

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## Changes

### **SMI-S support for TLS 1.1 (#24835)**

The Power Agent's SMI-S Interface Agent was not connecting to an EMC storage array, and investigation showed that the site was using SMI-S with TLS 1.1, which was not supported. The Interface Agent has been updated to support TLS 1.1.

### **Power Agent startup issues (#24791)**

Several issues have been reported where the Power Agent did not start up properly or timed out during the start process. These issues have been corrected.

### **IIS 8.5 support (#24770)**

The IIS Interface Agent has been updated to properly support IIS 8.5. The Referer setting was not handled properly; with this update Referer data will be automatically collected and displayed if available.

## Version 6.5.32.30 (June 2017)

### New Features

#### **New Sys-Number of Socket(s) metric (#24482)**

The Windows Power Agent has always reported the number of CPU cores for the monitored system with the metric **SYS-Number of CPU(s)**. However, the number of sockets was not reported. A new metric, **SYS-Number of Socket(s)**, has been added to the **Baseline-System** metric group.

### Changes

#### **Installer does not respect SSC\_INTERVAL or SSC\_RETENTION (#24713)**

When using an automated installation routine, the SSC\_INTERVAL and SSC\_RETENTION entries from the response file were not applied correctly to the `agent.xml` file. This has been corrected.

#### **Incorrect value for RESTART\_DELAY causes restart setting to be five days (#24716)**

InstallShield was using the value of the data collection interval plus 12 to create the RESTART\_DELAY value for `agent.xml`. While this may be valid for intervals less than 60 seconds it isn't viable for larger values. RESTART\_DELAY is now limited to 72 seconds regardless of the interval.

## Version 6.5.32.27 (October 2016)

### Changes

#### **Memory leak (#24208)**

A memory leak was introduced in the data collection fix in version 6.5.32.25; this has been corrected.

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## Version 6.5.32.26 (September 2016)

### Changes

#### Updated Power Agent installation (#24172)

When updating the Power Agent from a previous version, one Interface Agent dll file was not updated; the previous version remained in the Power Agent's directory tree. This has been resolved; the installation procedure now deletes the contents of the Power Agent directory tree before a fresh install.

## Version 6.5.32.25 (September 2016)

### Changes

#### Inconsistent data collection, taking longer than the summary interval (#24058)

Issue is resolved by storing the owner for each process between intervals to minimize the number of WMI calls required during each interval. Startup process may still take an extended amount of time (greater than 60 seconds) but should drop for all following intervals.

## Version 6.5.32.22 (July 2016)

### Changes

#### SMI-S Interface Agent not reporting correctly for EMC VNXe array

The mapping file for SMI-S data collection on EMC CLARiiON and VNX devices has been updated to correctly collect certain available metrics.

#### Oracle 12 data collection

Updates have been made to the `oracle.conf` file to ignore new Oracle12c metrics. This reduces excessive error logging on startup, and helps prevent errors during the collection cycle. The new Oracle12c metrics will be added in a future release.

## Version 6.5.32.20 (July 2016)

### New Features

#### Network Traffic Interface Agent (#23390)

The Network Traffic Interface Agent delivers server response time and network roundtrip time for network sockets. Data is delivered in two event classes: **Network RTT** (average round trip time for TCP packets between two IP addresses and ports) and **Network Payload SRT** (average server response times for payload server requests and responses on a TCP connection between two IP addresses and ports).

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## Version 6.5.32.18 (January 2016)

### Changes

#### **Power Agent stopped collecting data (#23423)**

The Windows Power Agent stopped collecting data on a regular basis. Data blocks were created that contained no metric values, until the Power Agent was restarted. Investigation showed that a non-Power Agent process was taking ownership of the TCP port that the *agentmgr* process used to communicate with *ReadPerfData*. This was corrected by modifying `libNT.dll` to close and immediately reopen the socket when restarting *ReadPerfData*, so that it is available to *ReadPerfData* after the restart.

## Version 6.5.32.17 (October 2015)

### Changes

#### **Unable to Add Custom Connection Name using EDM Register Feature (#23390)**

EDM Register did not utilize the connection template specified for the connection named with the “-c” flag in the command line, and used the default template instead. This has been corrected.

## Version 6.5.32.11 (April 2015)

### Changes

#### **Power Agent AccessKey Not Found (#23198)**

An issue with the Logfile IA `.xsd` file was causing the Power Agent to not start correctly. We also modified other `.xsd` and `.xml` file entries so that they could pass EDM's requirement for validation.

## Version 6.5.32.10 (March 2015)

### New Features

#### **New Network Traffic Metric Group**

The **Network Traffic** group is included in the standard metric package, and contains three event classes. A new COMPUTE section has been added to the `agent.xml` configuration file to remove entries from the Event list when the values are less than 1 kb/sec.

#### **xInclude Functionality**

The XML support library has been updated to support xInclude functions.

### Changes

#### **IISLog-Transaction Time overflowing for workload (#22841)**

IISLog-Transaction Time units has been changed from milliseconds to seconds.

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### **Connections to the Power Agents with SQL Server metrics keep dropping (#22777)**

Connections to Windows Power Agents on systems with the SQL Server data source were being dropped repeatedly. Investigation revealed that the data values in the **SQLServer:Backup** metric group continuously changed by adding subscripts, thus causing repeated symbol table changes. The data reported in this metric group has been changed to an event table to avoid such behavior.

### **Hyper-V names in metric do not correspond to actual name of VM guests (#22617)**

Modified the Hyper-V metric names to reduce size to allow greater room for subscripts.

### **SNMP Interface Agent Single-index / Multi-index array handling**

The configuration file has been modified to use the <SUBSCRIPT\_FIELD> for multi-index array subscripts in the same way it's used for single index array subscripts.

### **SNMP API GetBulk() call**

The SNMP IA has been modified to make the SNMP API call GetBulk () optional, as it was breaking when used against some (primarily large) Cisco devices.

The option is put in the snmp.xml file as shown below. The entry is optional and the default value is "true."

```
<DEVICE USE_AUTO="false" TEMPLATE="true">
  <MIBBIN>path\to\SNMPMIBII.bin</MIBBIN>
  <MIBDISPLAY>YES</MIBDISPLAY>
  <METRIC_CLASS>SNMP</METRIC_CLASS>
  <COMMUNITY>public</COMMUNITY>
  <IPADDRESS>NONE</IPADDRESS>
  <PORT>161</PORT>
  <TIMEOUT>2000</TIMEOUT>
  <RETRIES>2</RETRIES>
  <DISABLEFAILED>true</DISABLEFAILED>
  <USEBULKGET>false</USEBULKGET>
  <RETRYENABLESECS>600</RETRYENABLESECS>
  <MAPPING_FILE>snmp_standard.xml</MAPPING_FILE>
</DEVICE>
```

### **Repositioning of the IIS Logfile IA 'Target' column**

The IIS Interface Agent has been modified to place the "Target" column at the far right, which will allow it to expand to display the full value of the data.

### **IIS Logfile IA startup failure when connecting to a new IIS installation**

The IIS Interface Agent has also been modified to correct an issue that would cause it to fail with the error message ERROR: IISLogFile:XMLMGR - XERCES ERROR: Attribute not found: centralLogFileMode, which would happen when targeted against an IIS installation that had not had its logging options modified.

### **IIS Logfile IA collection inconsistencies**

The IIS Interface Agent has been modified to force IIS to flush HTTP Log Files every Power Agent interval. IIS defaults to every 60 seconds or 64k of text.

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## Version 6.5.32.6 (May 2014)

### New Features

#### **\etc\new\agent.xml removed during upgrades**

The `agent.xml` file is removed if it exists within the `\etc\new` directory from the previous version to prevent validation issues when trying to edit the new `agent.xml` via EDM.

### Changes

#### **Windows MSI Installer for automatic deployments to BladeLogic servers (#22634)**

Silent installations failed when executing the provided `setup.exe` on BladeLogic servers. An MSI installer has been included to resolve the issue. We recommend using the provided `setup.exe`, unless deploying to a BladeLogic server. The provided MSI will now work with upgrades, using the provided `ism_install.bat` file. Ensure that the bat file is run at the same directory level as the MSI installer.

#### **PID displayed in wrong column for .NET CLR Memory Event Data**

A fix has been implemented, and correct values are now displayed in the PID column.

#### **Oracle Data for .NET not being collected by the Power Agent**

Metric groups added to support Oracle Data Collection for .NET.

#### **Too many *protomgr* processes are launched when EA/V is under load**

When EA/V is under load, it can cause many *protomgr* instances to launch on the Power Agent, which consumes system resources. A safeguard has been added to protect against flooding a system with *protomgr* processes. *Servd* now has the ability to limit the number of *protomgrs* it launches, based on `MAX_PROTOMGR` in the `agent.xml` configuration file; the default is 20.

## Version 6.5.32.5 (April 2014)

### New Features

#### **New Memory metrics**

The metrics **MEM-TotalMB** and **MEM-%Used** have been added to the **Baseline-Memory** metric group. This will be added automatically to your existing data collection.

#### **Implementation of new text search and replace functionality**

Text search and replace functionality has been added for subscript names, to improve usability when dealing with long or ambiguous text. This functionality is accessed using the element `<SUBSCRIPT_REPLACE_TEXT>` in the `PROTOMGR` section of the `agent.xml` configuration file.

This example will simply remove the text "Adaptive Security Appliance" from all subscripts in the metric group "ifEntry":

```
<SUBSCRIPT_REPLACE_TEXT>
  <ENABLE>true</ENABLE>
  <METRIC_GROUP>ifEntry</METRIC_GROUP>
  <SEARCH_TEXT>Adaptive Security Appliance </SEARCH_TEXT>
</SUBSCRIPT_REPLACE_TEXT>
```



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This example will replace the text "Network Switch Block" with the text "switch":

```
<SUBSCRIPT_REPLACE_TEXT>
  <ENABLE>true</ENABLE>
  <METRIC_GROUP>ifEntry</METRIC_GROUP>
  <SEARCH_TEXT> Network Switch Block </SEARCH_TEXT>
  <REPLACE_TEXT> switch </REPLACE_TEXT>
</SUBSCRIPT_REPLACE_TEXT>
```

### Changed default data source to system

Modified PROTOMGR so that the default data source is "system".

### Updated *protomgr* functionality

*Protomgr* now supports the XML tag "ALLOW\_EMPTY\_ARRAY". This is useful when collecting from data sources where all the elements may switch to NA but then return.

```
<ALLOW_EMPTY_ARRAY>ALL</ALLOW_EMPTY_ARRAY>
```

Default Power Agent functionality is to remove the metric group if there are no active subscribers, but this may be problematic for data sources such as BizTalk or SNMP where metric groups may be empty for prolonged periods of time. Using "ALL" for the class name covers all metric groups.

### SNMP Improvements:

- In the SNMP mapping xml, we now support the tag < SUBSCRIPT\_FIELD >. This field is used to designate an element in the OID array to be used as the subscript name text. As an example from our standard mapping file:

```
<METRIC_GROUP>
  <NAME>ifEntry</NAME>
  <IS_EVENT_LIST>>false</IS_EVENT_LIST>
  <IS_ARRAY>>true</IS_ARRAY>
  <SUBSCRIPT_FIELD>2</SUBSCRIPT_FIELD>
  <ARRAY_INDEX>
    <INDEX_NAME>ifIndex</INDEX_NAME>
    <INDEX_ORDER>1</INDEX_ORDER>
    <INDEX_DEPTH>1</INDEX_DEPTH>
  </ARRAY_INDEX>
```

```
<METRIC_GROUP_SOURCE>ifEntry:.1.3.6.1.2.1.2.2.1</METRIC_GROUP_SOURCE>
```

The subscript field is 2 (which correlates to 1.3.6.1.2.1.2.2.1.2, which is ifDescr). This field is not relevant for non-arrays or event groups.

- Improved handling of dynamic arrays, which handles subscript elements that are created or destroyed.
- Improved logging, including the removal of "MIB not found" error messages.
- Reduced the time required for SNMP startup.
- SNMP now attempts to connect to designated devices even if they fail to connect during initial startup.

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- The Power Agent installer will now create a separate AGENTMGR, DATA\_SOURCE, and PROTOMGR section for SNMP during fresh installs.
  - The SNMP Interface Agent now reports the status of the connection to the SNMP device. This information is in the metric array Data Source Status [] in the Power Agent Info metric group. The subscript will be the value in the <IPADDRESS> files in the SNMP configuration file. Possible values are: 0 – Actively collecting; 1 – Never connected; 2 – Collection failed. It is important to note that this array is stored per data source, so to create a plot showing all statuses would require accessing multiple trace files, as shown.

## Version 6.5.32.3 (December 2013)

### New Features

#### Data Source Status

A new array metric, "Data Source Status", has been added to the metric group "Power Agent Info". The metric will have the following possible values:

- 0 - Data Source is running
- 1 - Data Source is not running
- 2 - Data Source was not found
- 3 - Unknown result

If BizTalk is installed as an Interface Agent, the array element "BizTalk" will be added to the array, and the status is based on the information gathered from Services.

### Changes

#### No Win/BizTalk data collected when SQL admin db not active (#22359)

The BizTalk Interface Agent has been modified to utilize a timeout when waiting for WMI data, as the infinite wait state was causing the Power Agent to stop reporting all metrics. A secondary impact of this issue is that because the default behavior of *protomgr* is to remove array metrics when all the subscripts are removed, and to remove array based metric groups when all the metrics are removed, even when the BizTalk metrics are collected after an extended period of NA, they are not reported to EA/V or DCS.

This issue was resolved by adding an optional setting to the PROTOMGR section of agent.xml:  
<ALLOW\_EMPTY\_ARRAY>insert\_class\_name\_to\_not\_remove\_if\_empty</ALLOW\_EMPTY\_ARRAY>

It is recommended to insert ALL as the class name:  
<ALLOW\_EMPTY\_ARRAY>ALL</ALLOW\_EMPTY\_ARRAY>

#### .NET CLR memory counter not used 5060 00010100 'Process ID' (#22360)

This metric had been mis-coded as to not be present in .Net4. This has been corrected.

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## Version 6.5.32.2 (September 2013)

### New Features

#### BizTalk Interface Agent

Microsoft BizTalk 2013 metrics have been added to the Windows Power Agent.

#### Offset feature in LogFile IA

Added the ability to offset data by a specified amount. This enables the Log File IA to read in negative numbers and convert them to positive before sending them to EA/V or EDM.

The LogFile configuration formatting file now supports a new optional field in the Field Definition section, OFFSET. The value contained in the OFFSET descriptor will be added to the value parsed from the log file before being processed by Agent Manager.

An example of the usage would be:

```
<FIELD_DEFINITION>
  <NAME>Temperature</NAME>
  <ENABLE>>true</ENABLE>
  <FIELD_INDEX>4</FIELD_INDEX>
  <DISPLAY_POSITION>5</DISPLAY_POSITION>
  <STATUS>NONE</STATUS>
  <METHOD>AVG</METHOD>
  <WEIGHTING></WEIGHTING>
  <OFFSET>273.15</OFFSET>
  <INPUT_TYPE>FLOAT64</INPUT_TYPE>
  <OUTPUT_TYPE>FLOAT64</OUTPUT_TYPE>
  <INPUT_FORM>RAW</INPUT_FORM>
  <OUTPUT_FORM>RAW</OUTPUT_FORM>
  <INPUT_SCALE>NOSCALE</INPUT_SCALE>
  <OUTPUT_SCALE>NOSCALE</OUTPUT_SCALE>
</FIELD_DEFINITION>
```

This will convert a temperature (in Celsius), which could be positive or negative, to the number of degrees about absolute zero, which would always be positive.

This option works on all numeric fields and is ignored on non-numeric fields.

### Metric names

The following metrics are available in this version of the Sightline Power Agent software for Windows 2008R2/2012. The names followed by brackets ([]) indicate array metrics. These have separate values for each CPU, disk, file system, and so on. Additional metrics are available with the optional Interface Agents.

#### Interval

##### ---NT Version---

Major Version  
Minor Version  
Build Number

##### ---System Uptime---

UPT Total Time[]  
UPT Elapsed Time[]  
UPT Up Time[]  
UPT Scheduled Downtime[]  
UPT Unscheduled Downtime[]

##### ---PerfData---

PerfData-Version  
PerfData-Revision  
PerfData-Little Endian  
PerfData-Bad Object Count

PerfData-Object Count  
 PerfData-NBT Connection Count  
 MemStat-Memory Load  
 MemStat-Total Physical  
 MemStat-Avail Physical  
 MemStat-Total PageFile  
 MemStat-Avail PageFile  
 MemStat-Total Virtual  
 MemStat-Avail Virtual

**---Baseline-System---**

SYS-FileRdOps/s  
 SYS-FileWrtOps/s  
 SYS-FileCtrlOps/s  
 SYS-FileRdKB/s  
 SYS-FileWrtKB/s  
 SYS-FileCtrlKB/s  
 SYS-CtxtSws/s  
 SYS-SysCalls/s  
 SYS-Processes  
 SYS-Threads  
 SYS-FileDataOps/s  
 SYS-SysUpTm  
 SYS-CPUQLen  
 SYS-AlignFxp/s  
 SYS-XptnDspch/s  
 SYS-FltEmuls/s  
 SYS-%Reg Quota Used  
 SYS-Number of CPU(s)  
 SYS-Number of Socket(s)  
 SYS-Number of Logical CPU(s)

**---Baseline-Processor---**

CPU-%CPU[]  
 CPU-%User[]  
 CPU-%Priv[]  
 CPU-Intr/s[]  
 CPU-%DPC[]  
 CPU-%Intr[]  
 CPU-DPCsQd/s[]  
 CPU-DPCRRate[]  
 CPU-%Idle[]  
 CPU-%C1[]  
 CPU-%C2[]  
 CPU-%C3[]  
 CPU-C1Trans/s[]  
 CPU-C2Trans/s[]  
 CPU-C3Trans/s[]  
 CPU-Clock Speed Mhz[]

**---Baseline-Memory---**

MEM-AvailMB  
 MEM-CommMB  
 MEM-CommLmt  
 MEM-PgFlt/s  
 MEM-WrtCpy/s

MEM-TrnsFlt/s  
 MEM-CacFlt/s  
 MEM-Dmnd0Flt/s  
 MEM-Pg/s  
 MEM-PgsInp/s  
 MEM-PgRd/s  
 MEM-PgOutp/s  
 MEM-PgWrt/s  
 MEM-PIPgMB  
 MEM-PINonPgMB  
 MEM-PIPgAllocs  
 MEM-PINonPgAllocs  
 MEM-FrSysPgTbl  
 MEM-CacMB  
 MEM-CacMBPk  
 MEM-PIPgResMB  
 MEM-SysCdeTotMB  
 MEM-SysCdeResMB  
 MEM-SysDrvTotMB  
 MEM-SysDrvResMB  
 MEM-SysCacResMB  
 MEM-%Commit in Use  
 MEM-AvailableKB  
 MEM-AvailableMB  
 MEM-TransPgsRePurp/s  
 MEM-Free/ZeroPgListKB  
 MEM-ModifiedPgListKB  
 MEM-StandbyCacheReserveKB  
 MEM-StandbyCacheNormal  
 PriorityKB  
 MEM-StandbyCacheCoreKB

**---Baseline-Cache---**

CAC-DatMp/s  
 CAC-SyDatMp/s  
 CAC-AsyDatMp/s  
 CAC-DatMpHit%  
 CAC-DatMpPin/s  
 CAC-PinRd/s  
 CAC-SyPinRd/s  
 CAC-AsyPinRd/s  
 CAC-PinRdHit%  
 CAC-CpyRd/s  
 CAC-SyCpyRd/s  
 CAC-AsyCpyRd/s  
 CAC-CpyRdHit%  
 CAC-MDLRd/s  
 CAC-SyMDLRd/s  
 CAC-AsyMDLRd/s  
 CAC-MDLRdHit%  
 CAC-RdAhd/s  
 CAC-FstRd/s  
 CAC-SyFstRd/s  
 CAC-AsyFstRd/s  
 CAC-FstRdRscMis/s  
 CAC-FstRdNotPos/s

CAC-LzyWrtFlsh/s  
 CAC-LzyWrtPg/s  
 CAC-DatFlsh/s  
 CAC-DatFlshPg/s

**---Baseline-PhysicalDisk---**

PDK-DskQLen[]  
 PDK-%DskTm[]  
 PDK-AvgQueue[]  
 PDK-%DskRdTm[]  
 PDK-AvgRdQue[]  
 PDK-%DskWrtTm[]  
 PDK-AvgWrQue[]  
 PDK-AvgDskMsec/Xfr[]  
 PDK-AvgDskMsec/Rd[]  
 PDK-AvgDskMsec/Wrt[]  
 PDK-DskXfr/s[]  
 PDK-DskRd/s[]  
 PDK-DskWrt/s[]  
 PDK-DskKB/s[]  
 PDK-DskRdKB/s[]  
 PDK-DskWrtKB/s[]  
 PDK-AvgDskKB/Xfr[]  
 PDK-AvgDskKB/Rd[]  
 PDK-AvgDskKB/Wrt[]  
 PDK-%IdleTime[]  
 PDK-SplitIO/s[]

**---Baseline-LogicalDisk---**

LDK-%FrSpc[]  
 LDK-FrMB[]  
 LDK-DskQLen[]  
 LDK-%DskTm[]  
 LDK-%RdTime[]  
 LDK-%WrTime[]  
 LDK-AvgQueue[]  
 LDK-AvgRdQue[]  
 LDK-AvgWrQue[]  
 LDK-AvgDskMsec/Xfr[]  
 LDK-AvgDskMsec/Rd[]  
 LDK-AvgDskMsec/Wrt[]  
 LDK-DskXfer/s[]  
 LDK-DskRd/s[]  
 LDK-DskWrt/s[]  
 LDK-DskKB/s[]  
 LDK-DskRdKB/s[]  
 LDK-DskWrKB/s[]  
 LDK-AvgDskKB/Xfr[]  
 LDK-%IdleTime[]  
 LDK-AvgDskKB/Rd[]  
 LDK-AvgDskKB/Wrt[]  
 LDK-SplitIO/s[]

**---Baseline-Workloads---**

WL-%CPU[]  
 WL-%User[]

WL-%Priv[]	RED-WrtPktSm/s	SWQ-WrtKB/s[]
WL-VirtPeak[]	RED-RdDny/s	SWQ-TotKB/s[]
WL-VirtBytes[]	RED-WrtDny/s	SWQ-TotOp/s[]
WL-PgFlt/Sec[]	RED-NwkErr/s	SWQ-CtxtBlkQd/s[]
WL-WSPeak[]	RED-SvrSes	
WL-WS[]	RED-SvrRecons	<b>---Baseline-Paging File---</b>
WL-PgFile Peak[]	RED-ConsCore	PGF-% Usage[]
WL-PgFile Bytes[]	RED-ConsLM2.0	PGF-% UsagePk[]
WL-Private Bytes[]	RED-ConsLM2.1	
WL-Threads[]	RED-ConsWinNT	<b>---Baseline-Browser---</b>
WL-PoolPgD[]	RED-SvrDscons	BWR-AnnSvr/s
WL-PoolNonPd[]	RED-SvrSesHung	BWR-AnnDom/s
WL-Handles[]	RED-CurCmd	BWR-AnnTot/s
WL-IOReadOps/s[]		BWR-ElxnPkt/s
WL-Total[]	<b>---Baseline-Server---</b>	BWR-MlsltWrt/s
WL-IOWriteOps/s[]	SVR-KBTot/s	BWR-SvrListRqst/s
WL-IODataOps/s[]	SVR-KBRcd/s	BWR-EnmSvr/s
WL-IOOtherOps/s[]	SVR-KBXmt/s	BWR-EnmDom/s
WL-IOReadBytes/s[]	SVR-SesTmOut	BWR-EnmOthr/s
WL-IOWriteBytes/s[]	SVR-SesErrOut	BWR-EnmTot/s
WL-IODataBytes/s[]	SVR-SesLogOff	BWR-MisSvrAnn
WL-IOOtherBytes/s[]	SVR-SesFrcdOff	BWR-MisMlsltDgm
	SVR-ErrLogon	BWR-MisSvrLstRqst
<b>---Baseline-Objects---</b>	SVR-ErrAcxsPrms	BWR-SvrAnnAllocFld/s
OBJ-Procs	SVR-ErrGtdAcxs	BWR-MlsltAllocFld
OBJ-Thrds	SVR-ErrSys	BWR-MlsltRcvFld
OBJ-Events	SVR-BlkRqstRej	BWR-MlsltWrtFld
OBJ-Semphrs	SVR-WrkItmShtg	BWR-MlsltOpnFld/s
OBJ-Mutxs	SVR-FileOpnTot	BWR-DuplMstrAnn
OBJ-Sections	SVR-FileOpn	BWR-IlleglDgm/s
	SVR-SvrSes	
<b>---Baseline-Redirector---</b>	SVR-FileDirSrch	<b>---Network Interface---</b>
RED-KBTot/s	SVR-PINonPgMB	NIF-KBTot/s[]
RED-FileDatOp/s	SVR-PINonPgFail	NIF-Pkt/s[]
RED-Pkt/s	SVR-PINonPgPk	NIF-PktRcd/s[]
RED-KBRcd/s	SVR-PIPgMB	NIF-PktSnt/s[]
RED-PktRcd/s	SVR-PIPgFail	NIF-CurBndwidth[]
RED-RdKBPg/s	SVR-PIPgPk	NIF-KBRcd/s[]
RED-RdKBNonPg/s	SVR-CtxtBlkQd/s	NIF-PktRcdUnicst/s[]
RED-RdKBCac/s	SVR-Logon/s	NIF-PktRcdNonUnicst/s[]
RED-RdKBNwk/s	SVR-LogonTot	NIF-PktRcdDscrD/s[]
RED-KBXmt/s		NIF-PktRcdErr/s[]
RED-PktXmt/s	<b>---Baseline-Srvr Work Qs---</b>	NIF-PktRcdUnknwn/s[]
RED-WrtKBPg/s	SWQ-QLen[]	NIF-KBSnt/s[]
RED-WrtKBNonPg/s	SWQ-ActvThrd[]	NIF-PktSntUnicst/s[]
RED-WrtKBCac/s	SWQ-AvailThrd[]	NIF-PktSntNonUnicst/s[]
RED-WrtKBNwk/s	SWQ-AvailWrkItm[]	NIF-PktOutbDscrD/s[]
RED-FileRdOp/s	SWQ-BrwdWrkItm[]	NIF-PktOutbErr/s[]
RED-RdOpRndm/s	SWQ-WrkItmShtg[]	NIF-O/PQLen[]
RED-RdPkt/s	SWQ-CurrClnt[]	
RED-RdLg/s	SWQ-KBRcd/s[]	
RED-RdPktSm/s	SWQ-KBSnt/s[]	
RED-FileWrtOp/s	SWQ-KBXfr/s[]	
RED-WrtOpRndm/s	SWQ-RdOp/s[]	
RED-WrtPkt/s	SWQ-RdKB/s[]	
RED-WrtLg/s	SWQ-WrtOp/s[]	