



MSSQL/PI Power Pack



- LightSpeed PM - A Certified Quest Partner

Quest™

Updated 08-25-2020

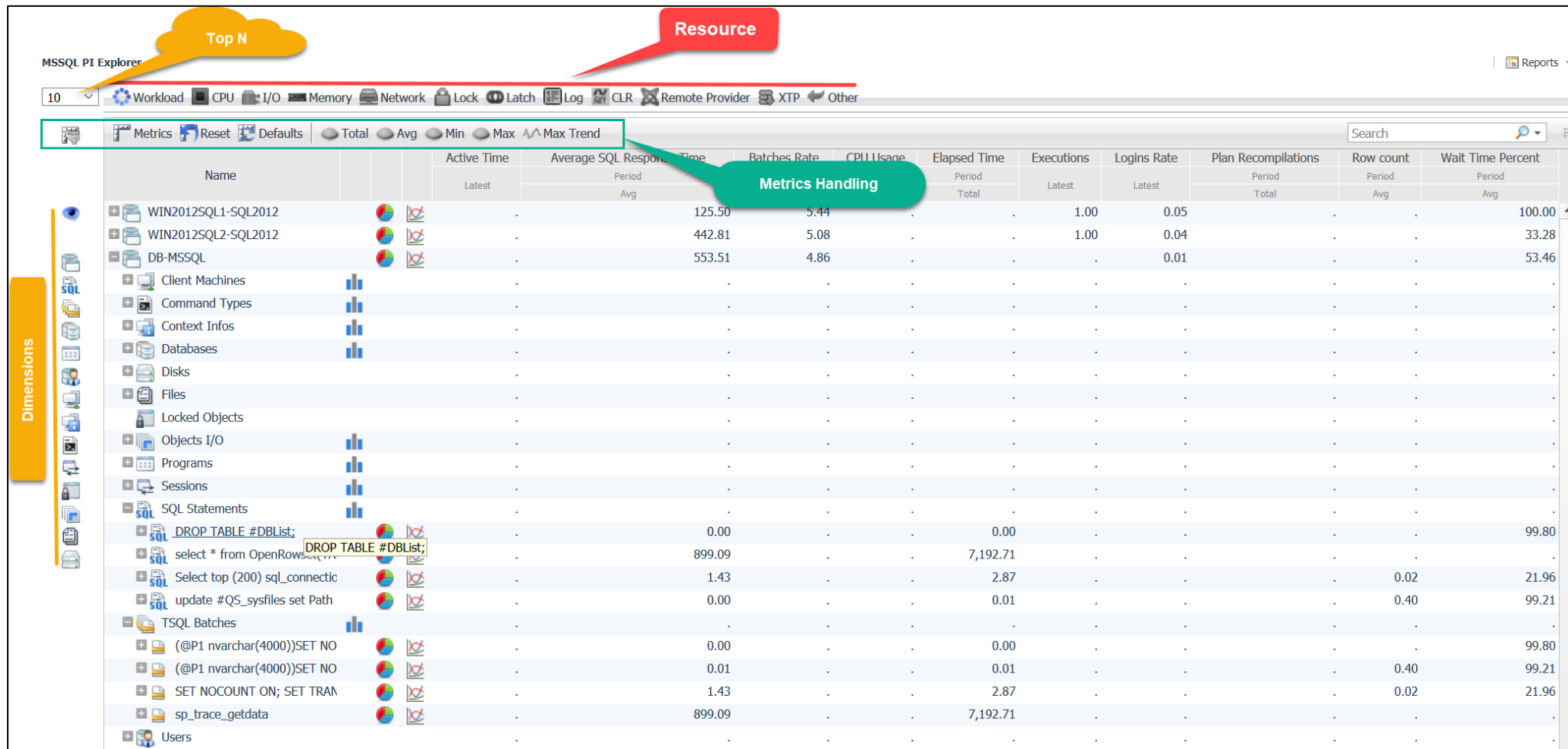
MSSQL/PI Power Pack - Why

- No other solution exists today for extracting data and putting it to use in easy to create dashboards like the MS SQL Power Pack.
- This solution give you access to deep down data that is not readily available from either the Foglight SQL agent or the Performance investigator tools.
- It not only exposes the data, but it also gives you drag and drop simplicity for creating highly advance dashboard
- With this tool, you can eliminate the need for Custom services and Master the creation of advanced dashboards in Foglight for analyzing your SQL performance
- Once implemented we give you the knowledge transfer you require to be successful and begin creating your own views

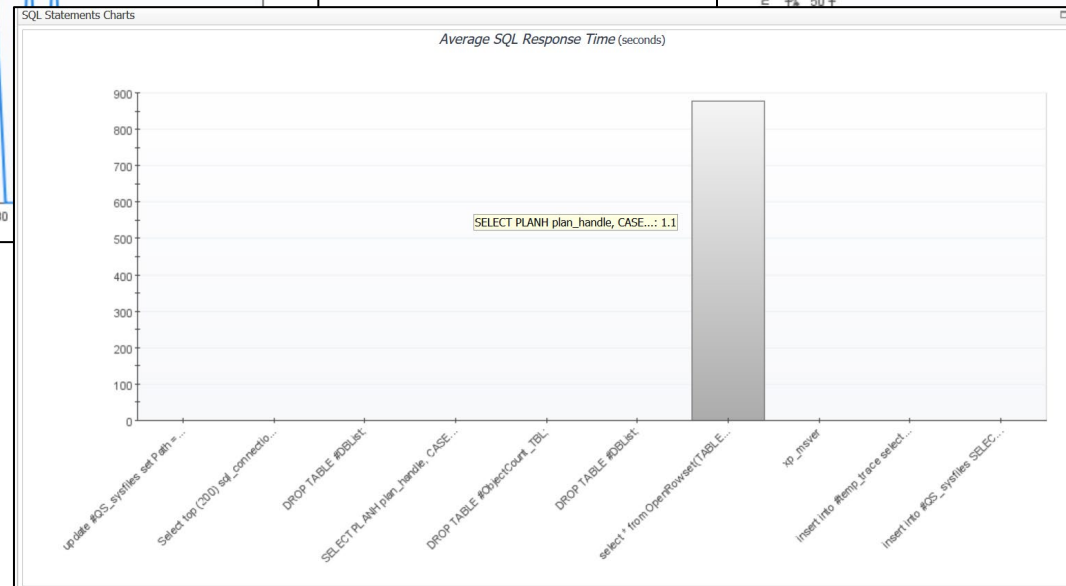
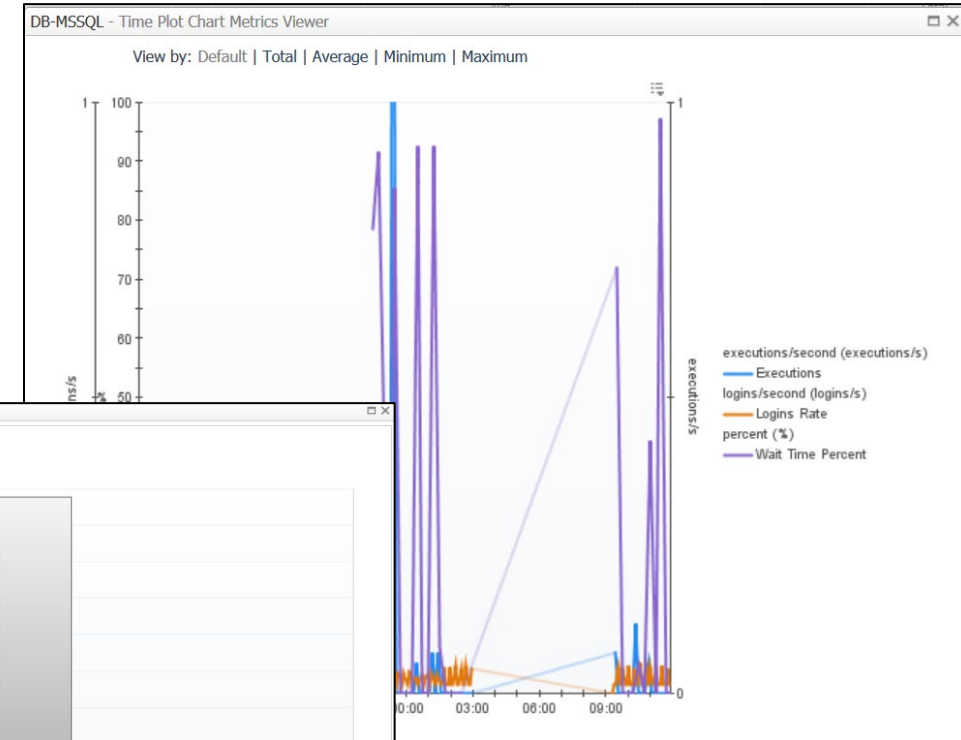
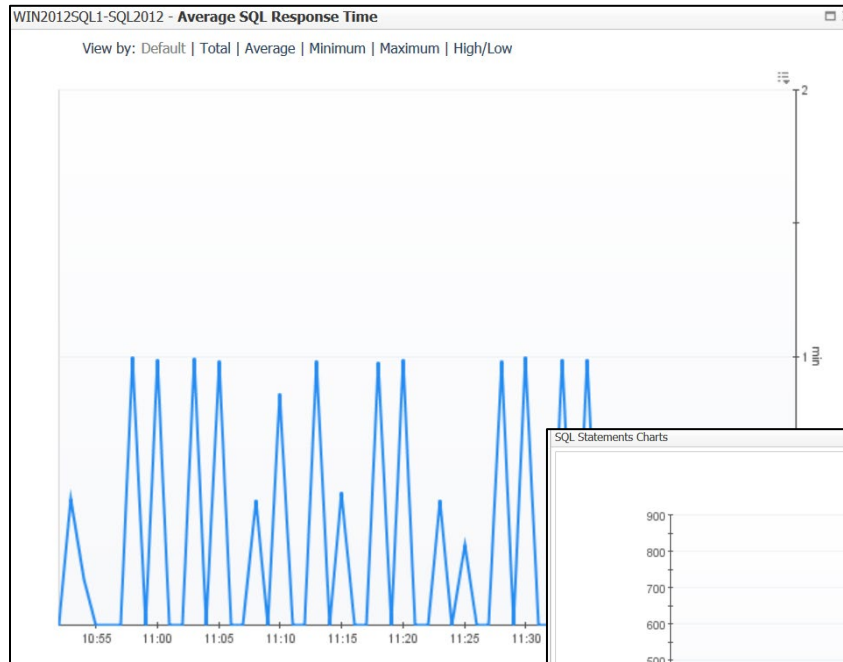
MSSQL/PI Power Pack - Solution

- PI
 - **NEW!** Explorer
 - **NEW!** Analytics
 - Flexible Views
 - Flexible Drag & Drop Views
 - Flexible Reports
- SQL Server
 - **NEW!** Cluster Explorer
 - **NEW!** Health Score
 - **NEW!** Groups Overview
 - **NEW!** Analytics
 - **NEW!** Capacity Planning
 - Flexible Views
 - Flexible Drag & Drop Views.
 - Flexible Reporting
 - Log Monitoring

MSSQL/PI Power Pack - PI Explorer



MSSQL/PI Power Pack - PI Explorer - Continued



MSSQL/PI Power Pack - PI Instances

- View allows to show selected instances and display PI Metrics.
- Same Capabilities as the PI Explorer

Metrics

Reset

Defaults

Total










Avg

Min

Max

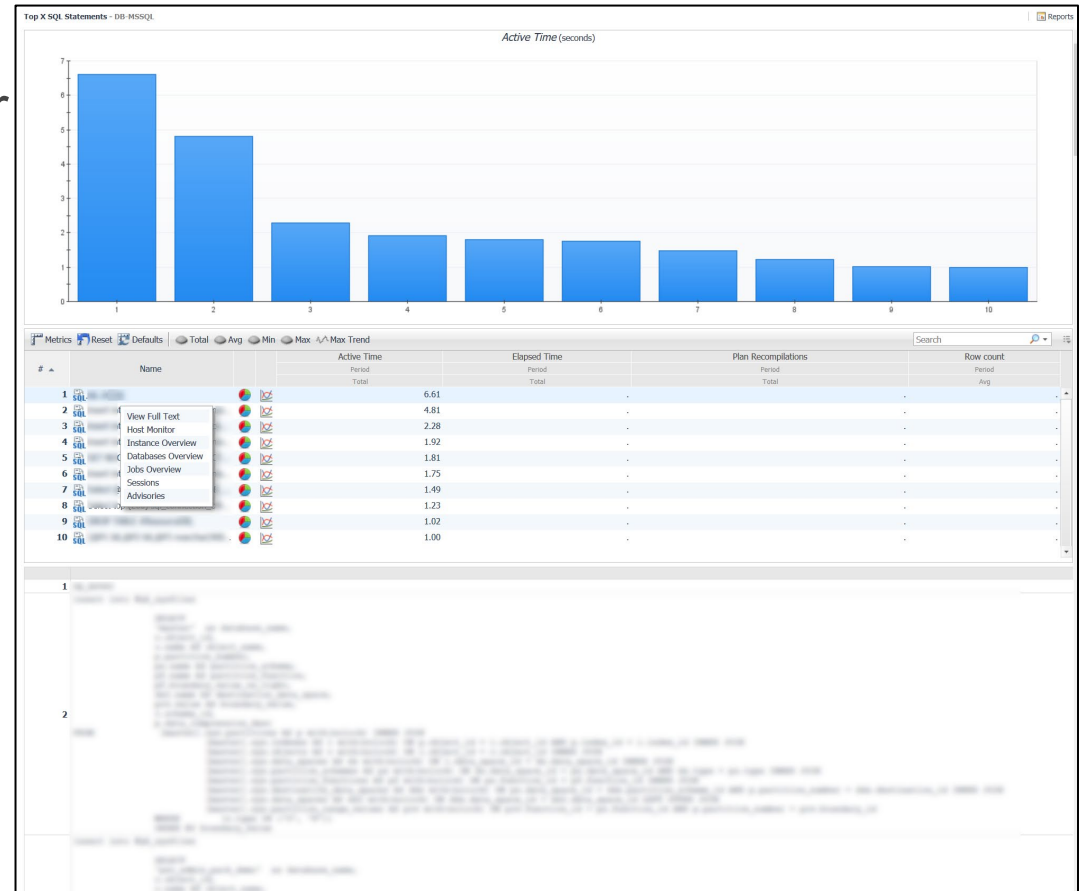
Max Trend

Search

Name			Active Time	Average SQL Response Time	Batches Rate	CPU Usage	Executions	Logins Rate	Wait Time Percent
			Current	Period	Current	Current	Current	Current	Period
				Avg					Avg
 WIN2012SQL1-SQL2012			.	113.86	5.43	.	.	0.05	93.50
 WIN2012SQL2-SQL2012			.	183.83	4.98	.	1.00	0.04	63.49
 DB-MSSQL			0.00	205.36	4.84	0.00	.	0.01	65.82

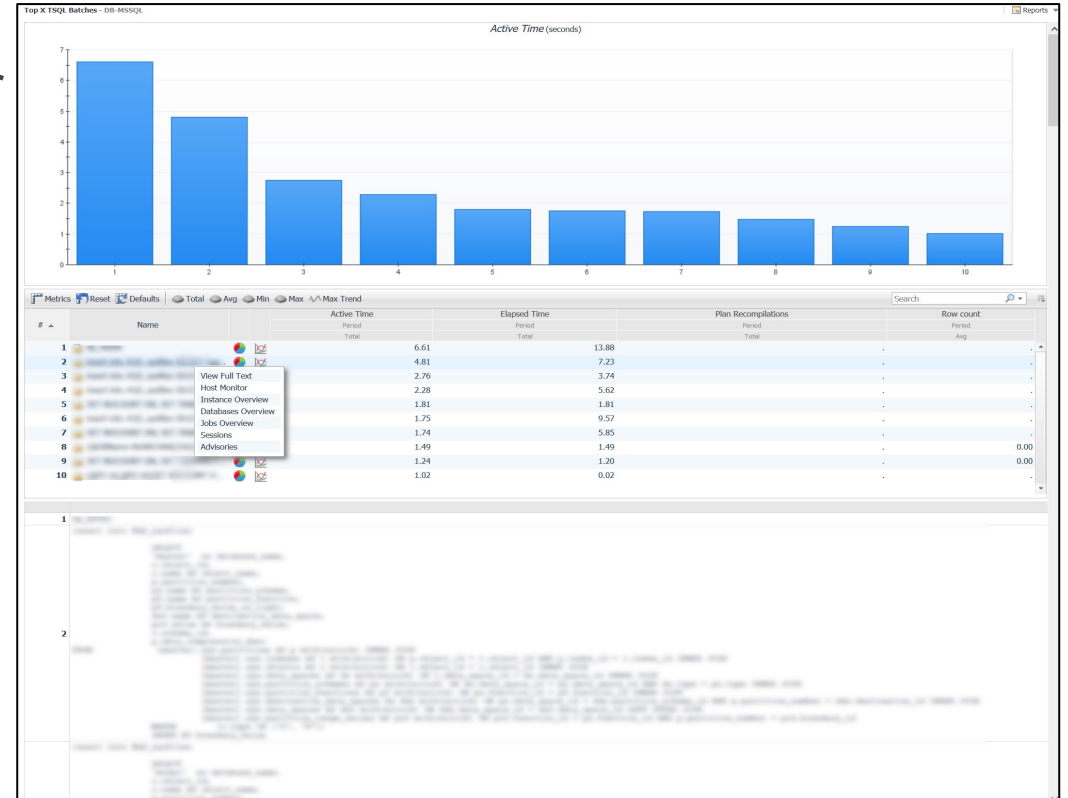
MSSQL/PI Power Pack - PI Top X SQL

- Displays the Top 10 SQL statements for an instance.
 - Active Time Clustered Bar Chart
 - Metrics support same as the PI Explorer
 - Displays the SQL statements Text



MSSQL/PI Power Pack - PI Top X SQL Batches

- Displays the Top 10 SQL Batches for an instance.
 - Active Time Clustered Bar Chart
 - Metrics support same as the PI Explorer
 - Displays the SQL Batches Text



MSSQL/PI Power Pack - PI Advisories

- Displays Advisories on selected instances.

PI Advisories - (2 Instances)

Instance	Start Time	Advisory	Action Type	Description
DB-MSSQL		CPU Usage Deviation	Review Performance Deviations	Overall CPU usage exceeds the baseline
DB-MSSQL		Excessive I/O Wait	Reduce Read/Write operations	Excessive I/O Wait
WIN201250		CPU Usage Deviation	Review Performance Deviations	Overall CPU usage exceeds the baseline
WIN201250		Excessive Memory Pressure	Address Resource Bottlenecks	Excessive Memory Pressure

SQL PI Explorer
Advisories
Locks
Lock Statistics
Sessions
Plan Caches
Wait Events
Wait Statistics
SQL Agent Jobs
Error Logs



MSSQL/PI Power Pack - PI Change Tracking

- Displays Changes on selected instances.

PI Change Tracking Summary - (3 Instances)

Search

	Instance	Total Changes	Change Counts						
			Accounts	Database Configuration	Database Objects	Execution Plan	Master Configuration	System Configuration	User Defined
✖	WIN2012SQL1-SQL2012	33	0	0	33	0	0	0	0
⚠	WIN2012SQL2-SQL2012		0	0	0	0	0	2	0
⚠	DB-MSSQL		0	0	0	0	0	1	0

Host Monitor
Instance Overview
Databases Overview
Jobs Overview

SQL PI Explorer
Advisories
Locks
Lock Statistics
Sessions

Plan Caches
Wait Events
Wait Statistics

SQL Agent Jobs
Error Logs

PI Change Tracking - (3 Instances)

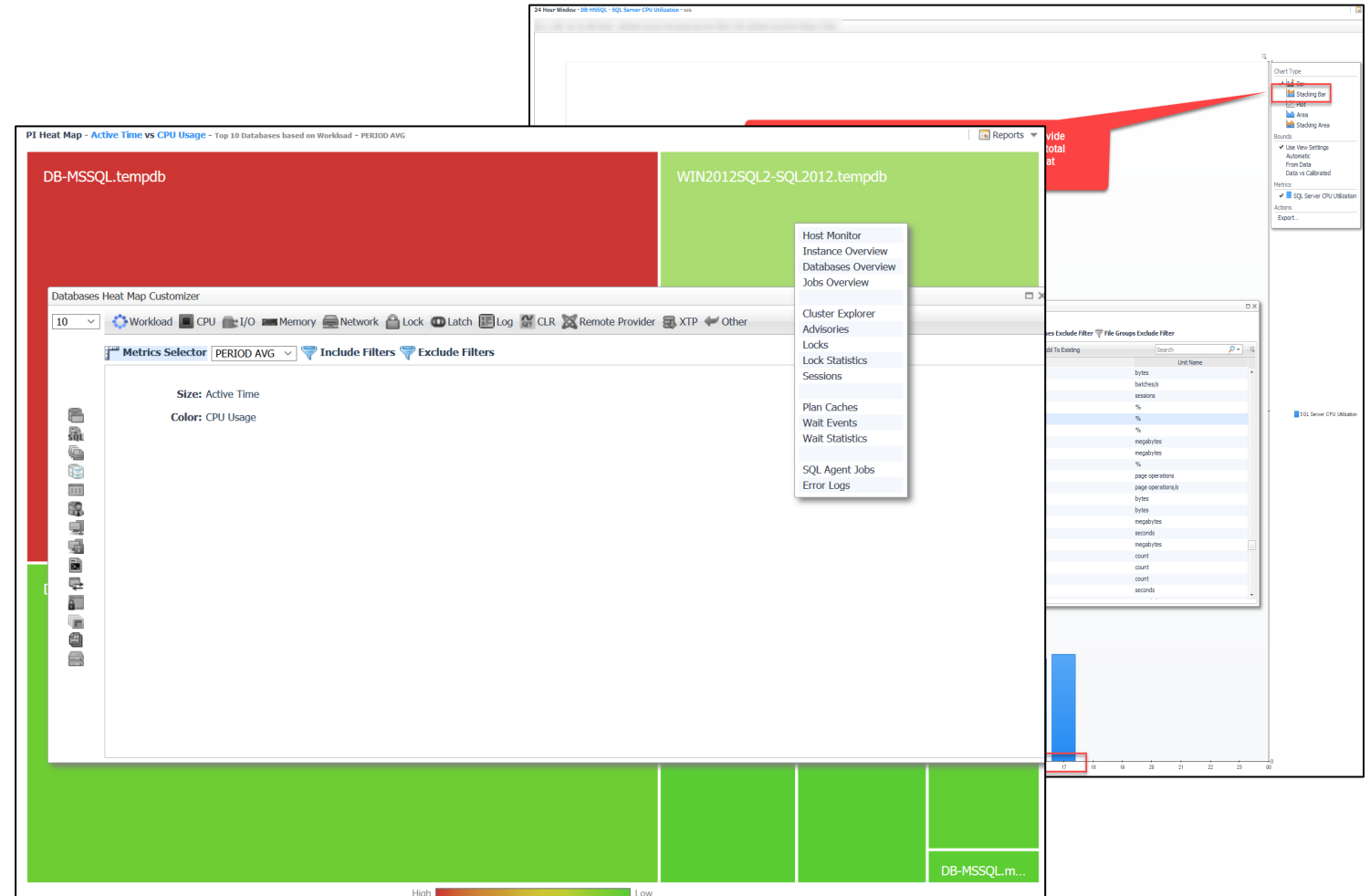
Dec 9, 2018 - Dec 11, 2018 2 days Reports

Search

Instance	Date	Category	User	Change		Description
				Old Value	New Value	
DB-MSSQL	2018-12-09 10:00:00	Devices	sa			Added 1 new device to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Index	sa			Added 1 new index to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Index	sa			Added 1 new index to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Table	sa			Added 1 new table to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Index	sa			Added 1 new index to the instance.
WIN2012SQL1-SQL2012	2018-12-09 10:00:00	Index	sa			Added 1 new index to the instance.

MSSQL/PI Power Pack - PI Analytics

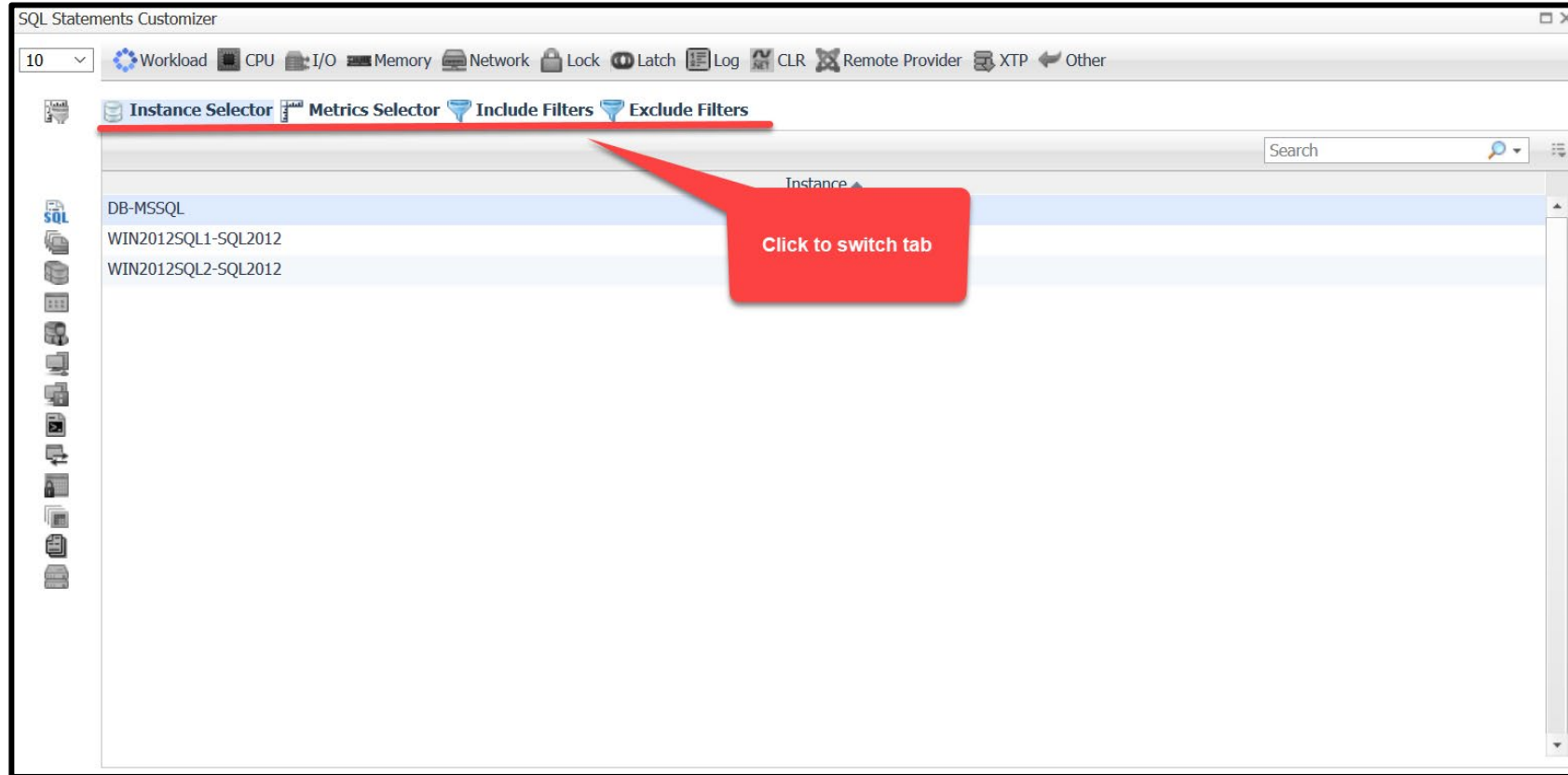
- 24 Hour Window View
 - Get Insight into how a resource is utilized within a 24 hour day based on historical data.
- Analyze Data Using
 - Time Plot Charts
 - Time Bar Charts
 - Clustered Bar Charts
- Advanced Analytics Using:
 - Bubble Charts
 - Scatter Charts
 - Heat Maps



MSSQL/PI Power Pack - PI Drag & Drop

- All the views can be dragged:
 - Directly from the Views Tab
 - By dragging one or more instances
 - By dragging a service
 - By dragging a group
- Advanced Customizers to select relevant options:
 - Dimensions
 - Resource
 - Top N
 - Metrics
- Include and Exclude Filters where applicable for filtering based on these Dimensions:
 - Databases
 - Programs
 - Users
 - Client Machines
 - Disks
 - Files

MSSQL/PI Power Pack - PI Drag & Drop



MSSQL/PI Power Pack - PI Explorer Report

- Ability to specify all the options available in the Dashboard version
 - Time Range
 - Resource
 - Dimensions
 - Top N
 - Metrics (Filters can be applied)
 - Ability to show the following values for the selected period:
 - Min
 - Max
 - Sum
 - Average
 - Group, Service or/and List of Instances

MSSQL/PI Power Pack - PI Instances Report

- Ability to specify all the options available in the Dashboard version
 - Time Range
 - Resource
 - Metrics to Plot in a clustered bar chart
 - Metrics (Filters can be applied)
 - Ability to show the following values for the selected period:
 - Min
 - Max
 - Sum
 - Average
 - Group, Service or/and List of Instances

MSSQL/PI Power Pack - PI Top N Report

- Top N where the values of the metrics are relative to the instance.
- Ability to specify
 - Time Range
 - Resource
 - Dimensions
 - Top N
 - Include and Exclude Filters allows for filtering Top N results based the Following Dimensions:
 - Databases
 - Programs
 - Users
 - Client Machines
 - Disks
 - Files
 - Metrics to Plot in a clustered bar chart
 - Metrics (Filters can be applied)
 - Ability to show the following values for the selected period:
 - Min
 - Max
 - Sum
 - Average
 - Group, Service or/and List of Instances

MSSQL/PI Power Pack - PI Top N SQL Report

- Top N SQL Statement where the values of the metrics are relative to the instance or a specific dimension and the Full Text of the Statements is included in the report.
- Ability to specify
 - Time Range
 - Resource
 - Top N
 - Include and Exclude Filters allows for filtering Top N results based the Following Dimensions:
 - Databases
 - Programs
 - Users
 - Client Machines
 - Disks
 - Files
 - Metrics to Plot in a clustered bar chart
 - Metrics (Filters can be applied)
 - Ability to show the following values for the selected period:
 - Min
 - Max
 - Sum
 - Average
 - Group, Service or/and List of Instances

MSSQL/PI Power Pack - PI Reports - Top N SQL Batches

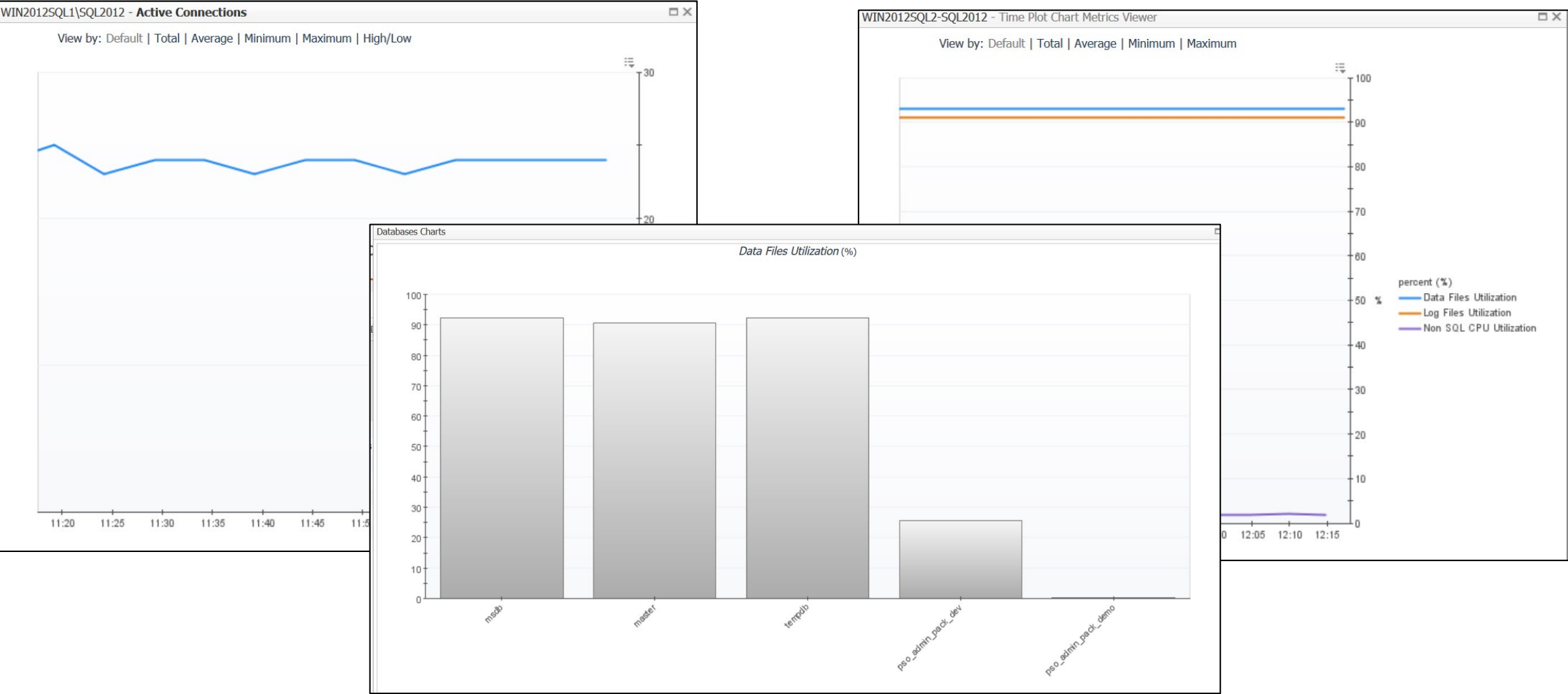
- Top N SQL Batches where the values of the metrics are relative to the instance or a specific dimension and the Full Text of the Statements is included in the report.
- Ability to specify
 - Time Range
 - Resource
 - Top N
 - Include and Exclude Filters allows for filtering Top N results based the Following Dimensions:
 - Databases
 - Programs
 - Users
 - Client Machines
 - Disks
 - Files
 - Metrics to Plot in a clustered bar chart
 - Metrics (Filters can be applied)
 - Ability to show the following values for the selected period:
 - Min
 - Max
 - Sum
 - Average
 - Group, Service or/and List of Instances

MSSQL/PI Power Pack - SQL Cluster Explorer

MSSQL Cluster Explorer																														Reports
Metrics Reset Defaults Total Avg Min Max Max Trend																														Search
Name					# Index	# Tables	% Free	% Used	Active Connections	Data Files Utilization	Disk Utilization	Free Space (%)	Host Memory Utilization	Index Size	Internal Object Reserved %	Item Count	Log Files Utilization	Logins Rate	Non SQL CPU Utilization	Plan Cache Hit Rate (%)	Plan Cache Objects	Plan Cache Use Rate	SQL Batches Rate	SQL Server CPU Utilization	SQL Server Memory Utilization	Table Count	Table Conn			
					Latest	Latest	Latest	Latest	Current	Current	Period Avg	Period Avg	Current	Period Avg	Current	Period Avg	Current	Current	Current	Current	Current	Period Avg	Current	Current	Current	Period Avg	Current	Current	Current	
Always On					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Availability Groups	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
WIN2012SQL1\SQL2012	SECONDARY				.	.	.	.	24.00	84.00	.	.	20.37	.	.	.	3.00	0.05	2.03	96.18	794.00	.	5.48	0.11	9.53	.	.	.	.	.
WIN2012SQL2\SQL2012	SECONDARY				.	.	.	.	25.00	93.00	.	.	20.22	.	.	.	91.00	0.03	1.93	94.88	670.00	.	4.82	0.09	9.23	.	.	.	.	.
WIN2012CORE	SECONDARY				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Instances	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
WIN2012SQL2-SQL2012	-				.	.	.	.	25.00	93.00	.	.	20.22	.	.	.	91.00	0.03	1.93	94.88	670.00	.	4.82	0.09	9.23	.	.	.	.	.
Databases	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Logical Disks	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Plan Caches	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DB-MSSQL	Standalone				.	.	.	.	23.00	20.00	.	.	20.66	.	.	.	4.00	0.01	7.99	97.93	412.00	.	4.83	1.49	3.17	.	.	.	.	.
Databases	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Logical Disks	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
C:	-				.	.	.	.	.	.	48.51	51.49	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Plan Caches	-	-			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bound Trees	-				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	97.41	184.00	.	.	.	.	.	.	.	.	.
Extended Stored Procedures	-				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	99.46	5.00	.	.	.	.	.	.	.	.	.
Object Plans	-				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	92.78	7.00	1.00	.	.	.	.	.	.	.	.
SQL Plans	-				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	97.65	215.00	2.08	.	.	.	.	.	.	.	.
Temporary Tables & Table Var	-				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	94.12	1.00	.	.	.	.	.	.	.	.	.



MSSQL/PI Power Pack - Cluster Explorer - Continued



MSSQL/PI Power Pack – Health Score

- The Health Score is a concept that allows you to control how to evaluate the health of an instance.
- It provides the following as options to give total control over how it gets calculated:
- Ability to define a health score per instance.
- A combination of customizable:
 - Up to 4 Metrics to be used in the calculation.
 - Each metric has a weight (0 - *OFF* to 100)
 - Each Metric can have up to 4 thresholds to decide how much impact the weight has:
 - 25% Impact
 - 50% Impact
 - 75% Impact
 - FULL IMPACT
-

MSSQL/PI Power Pack – Health Score Settings

Manage settings on other servers

Manage Alarm Settings

Scope Thresholds on specific instances if desired

Alarm

Threshold	Value	Description
PSO.MSSQLPowerPack.HealthScore.Alarm.Threshold.Warning	95.0	What percentage should the Health Score reach before a Warning alarm is generated.
PSO.MSSQLPowerPack.HealthScore.Alarm.Threshold.Critical	85.0	What percentage should the Health Score reach before a Critical alarm is generated.
PSO.MSSQLPowerPack.HealthScore.Alarm.Threshold.Fatal	75.0	What percentage should the Health Score reach before a Fatal alarm is generated.

Notification

Notification	Value	Description
PSO.MSSQLPowerPack.HealthScore.Email.Recipient.Warning	alain@home.com	Comma separated list of email addresses to which to send emails for the Warning events.
PSO.MSSQLPowerPack.HealthScore.Email.Recipient.Critical	alain@home.com	Comma separated list of email addresses to which to send emails for the Critical events.
PSO.MSSQLPowerPack.HealthScore.Email.Recipient.Fatal	alain@home.com	Comma separated list of email addresses to which to send emails for the Fatal events.

Metric 1

Metric	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric1.Name	SQL Server CPU Utilization	The name of a metric that will participate in the Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric1.Weight	25	The weight the metric has on the overall health score. 0 to 100. 0 being no weight at all, as such the metric will be ignored while 100 is all the weight. It is important to understand that this only one of 4 other metrics where the weight of all 4 metrics should be equal 100 for a balanced Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric1.Operator	>=	The operator to use when checking against the values assigned to the impact metrics. Supported operators: =, >, >=, <=, <.

Impact Thresholds

Impact Threshold	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric1.FullImpact.Threshold	98.0	The value that will decide if the Weight impact is at Full capacity. If this evaluation is true then 100% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric1.HighImpact.Threshold	96.0	The value that will decide if the Weight impact is at High capacity. If this evaluation is true then 75% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric1.MediumImpact.Threshold	94.0	The value that will decide if the Weight impact is at Medium capacity. If this evaluation is true then 50% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric1.LowImpact.Threshold	92.0	The value that will decide if the Weight impact is at Low capacity. If this evaluation is true then 25% of the weight assigned to the metric will be used.

Metric 2

Metric	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric2.Name	Host Memory	The name of a metric that will participate in the Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric2.Weight	25	The weight the metric has on the overall health score. 0 to 100. 0 being no weight at all, as such the metric will be ignored while 100 is all the weight. It is important to understand that this only one of 4 other metrics where the weight of all 4 metrics should be equal 100 for a balanced Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric2.Operator	>=	The operator to use when checking against the values assigned to the impact metrics. Supported operators: =, >, >=, <=, <.

Impact Thresholds

Impact Threshold	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric2.FullImpact.Threshold	98.0	The value that will decide if the Weight impact is at Full capacity. If this evaluation is true then 100% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric2.HighImpact.Threshold	96.0	The value that will decide if the Weight impact is at High capacity. If this evaluation is true then 75% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric2.MediumImpact.Threshold	94.0	The value that will decide if the Weight impact is at Medium capacity. If this evaluation is true then 50% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric2.LowImpact.Threshold	92.0	The value that will decide if the Weight impact is at Low capacity. If this evaluation is true then 25% of the weight assigned to the metric will be used.

Metric 3

Metric	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric3.Name	Buffer Cache Hit Ratio	The name of a metric that will participate in the Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric3.Weight	25	The weight the metric has on the overall health score. 0 to 100. 0 being no weight at all, as such the metric will be ignored while 100 is all the weight. It is important to understand that this only one of 4 other metrics where the weight of all 4 metrics should be equal 100 for a balanced Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric3.Operator	<=	The operator to use when checking against the values assigned to the impact metrics. Supported operators: =, >, >=, <=, <.

Impact Thresholds

Impact Threshold	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric3.FullImpact.Threshold	80.0	The value that will decide if the Weight impact is at Full capacity. If this evaluation is true then 100% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric3.HighImpact.Threshold	84.0	The value that will decide if the Weight impact is at High capacity. If this evaluation is true then 75% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric3.MediumImpact.Threshold	86.0	The value that will decide if the Weight impact is at Medium capacity. If this evaluation is true then 50% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric3.LowImpact.Threshold	88.0	The value that will decide if the Weight impact is at Low capacity. If this evaluation is true then 25% of the weight assigned to the metric will be used.

Metric 4

Metric	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric4.Name	SQL Server CPU Utilization	The name of a metric that will participate in the Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric4.Weight	25	The weight the metric has on the overall health score. 0 to 100. 0 being no weight at all, as such the metric will be ignored while 100 is all the weight. It is important to understand that this only one of 4 other metrics where the weight of all 4 metrics should be equal 100 for a balanced Health Score.
PSO.MSSQLPowerPack.HealthScore.Metric4.Operator	<=	The operator to use when checking against the values assigned to the impact metrics. Supported operators: =, >, >=, <=, <.

Impact Thresholds

Impact Threshold	Value	Description
PSO.MSSQLPowerPack.HealthScore.Metric4.FullImpact.Threshold	100.0	The value that will decide if the Weight impact is at Full capacity. If this evaluation is true then 100% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric4.HighImpact.Threshold	150.0	The value that will decide if the Weight impact is at High capacity. If this evaluation is true then 75% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric4.MediumImpact.Threshold	200.0	The value that will decide if the Weight impact is at Medium capacity. If this evaluation is true then 50% of the weight assigned to the metric will be used.
PSO.MSSQLPowerPack.HealthScore.Metric4.LowImpact.Threshold	250.0	The value that will decide if the Weight impact is at Low capacity. If this evaluation is true then 25% of the weight assigned to the metric will be used.

Remote Administration of the solution across servers

MSSQL/PI Power Pack - Groups Overview

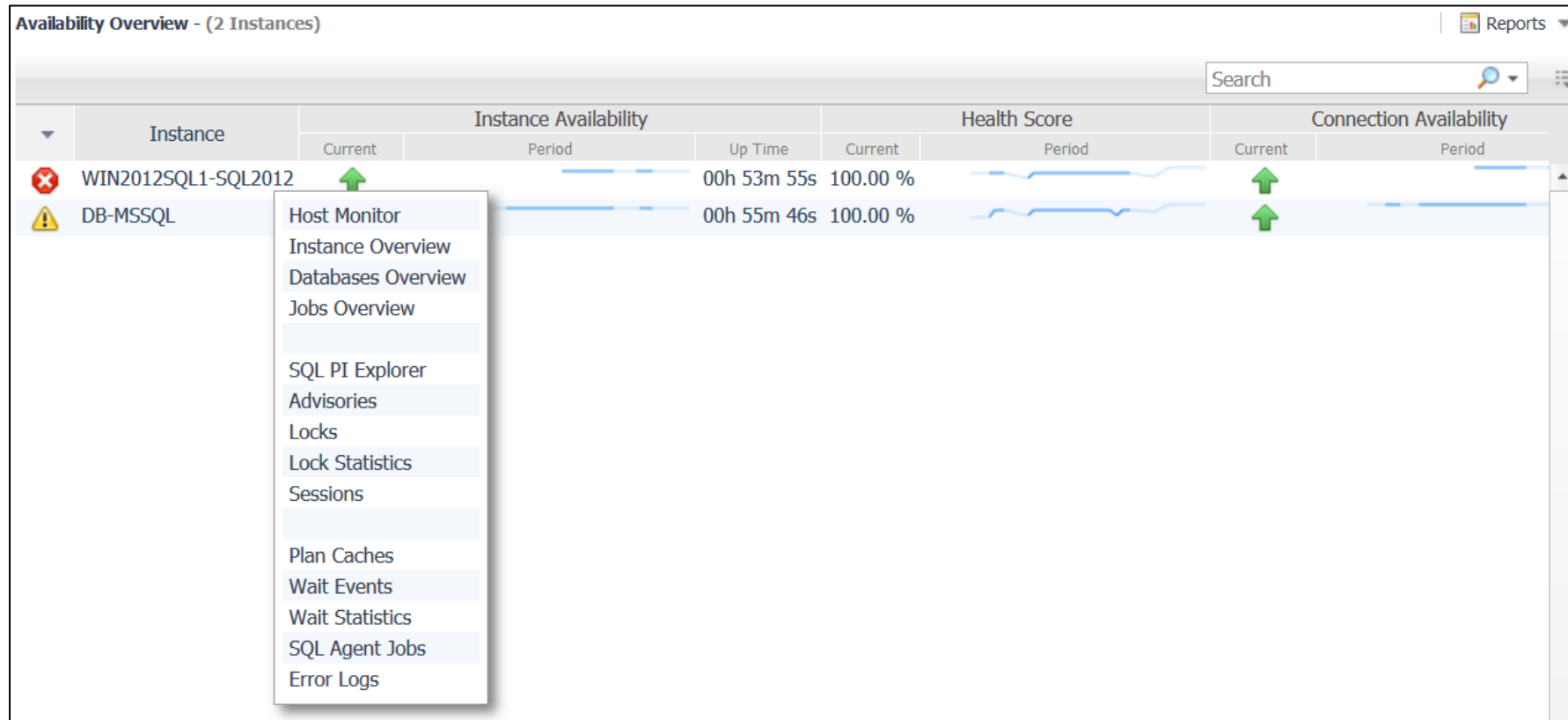
1. Alarms
2. Health Score
3. Availability
4. CPU Utilization
5. Databases
6. Key Metrics



MSSQL/PI Power Pack - Various Views

- All the views are built from the ground up to offer a clean and professional Look
- Drill Downs
- Adaptive display
- Many views offer the same feature set as the Cluster Explorer
- Customizers
- Filters

MSSQL/PI Power Pack - Availability Overview



MSSQL/PI Power Pack – Backup Jobs / Locations

Backup Jobs - (2 Instances)

Search

Reports

Instance	Job Name	Category	Enabled	Current Status	Curr Step #	Outcome	Time	Last Run	Finish	Duration	Next Run Time	Description
WIN2012SQL1-SQL2012	LiteSpeed Backup Template Fast Compression All DBs (version 1)	[Uncategorized (Local)]	⏻	Completed		Fail	2018-12-07 02:00:05	2018-12-07 02:00:05		00h 00m 05s	2018-12-10 02:00:00	LiteSpeed Backup Template Fast Compression All DBs (version 1)
WIN2012SQL1-SQL2012	Host Monitor	Over Update Native Backup statistics	⏻									LiteSpeed for SQL Server Update Native Backup statistics

Host Monitor

Instance Overview

Databases Overview

Jobs Overview

SQL PI Explorer

Advisories

Locks

Lock Statistics

Sessions

Plan Caches

Wait Events

Wait Statistics

SQL Agent Jobs

Error Logs

Backup Locations - (2 Instances)

Total Avg Min Max Max Trend

Search

Reports

Instance	Name	Media Free Space
WIN2012SQL1-SQL2012	C:	Current 13.89

Host Monitor

Instance Overview

Databases Overview

Jobs Overview

SQL PI Explorer

Advisories

Locks

Lock Statistics

Sessions

Plan Caches

Wait Events

Wait Statistics

SQL Agent Jobs

Error Logs

MSSQL/PI Power Pack – Databases / Backup / Mirroring

The screenshot displays the MSSQL/PI Power Pack interface, divided into three main sections: Databases, Database Backup, and Databases Mirroring.

Databases - (2 Instances)

Instance	Name	Status	DB ID
WIN2012SQL1-SQL2012	LiteSpeedLocal	SUSPECT	6
WIN2012SQL1-SQL2	Host Monitor	ONLINE	9
WIN2012SQL1-SQL2	admin_pack_dev	ONLINE	5
WIN2012SQL1-SQL2	admin_pack_demo	ONLINE	6
WIN2012SQL1-SQL2	admin_pack_dev	ONLINE	7
WIN2012SQL1-SQL2	ht_5756_ha	ONLINE	10
WIN2012SQL1-SQL2	ht_5756Fed	ONLINE	
WIN2012SQL1-SQL2	ht_593_fed	ONLINE	
WIN2012SQL1-SQL2	ht_593_ha	ONLINE	
WIN2012SQL1-SQL2	htPlaybackDatabase	ONLINE	
WIN2012SQL1-SQL2	htStatisticsRepository	ONLINE	

Database Backup - DB-MSSQL

Database Name	dbid	Status	Recovery Model	Last Backup
psd_admin_pack_demo	5	ONLINE	SIMPLE	
psd_admin	6	ONLINE	SIMPLE	

Databases Mirroring - (2 Instances)

Instance	Database	DBID	Role	State	Safety Level	Roundtrip Latency	Principal	Commit Acknowledgment Delay	Write Commit	Mirror	Partner	Role Sequence	Witness	Queue	Redo	Send	Roll Forward	Fallover
		7	MIRROR	SYNCHRONIZED	FULL	829.06 sec		10	0.00	0.00		1	UNKNOWN	UNLIMITED	0.00	0.00	227700000053493	
		6	MIRROR	SYNCHRONIZED	FULL	97.30 sec		10	0.00	0.00		3	UNKNOWN	UNLIMITED	0.00	0.00	43500001453772	
		7	PRINCIPAL	SYNCHRONIZED	FULL	41.26 sec		10	4,536	0.15		1	UNKNOWN	UNLIMITED	0.00	0.00	227700000056544	
		6	PRINCIPAL	SYNCHRONIZED	FULL	7.11 sec		10	2,353	0.14		3	UNKNOWN	UNLIMITED	0.00	0.00	43500001455061	

MSSQL/PI Power Pack – Deadlock Summary

Deadlock Summary By Application - (3 Instances)

Instance	Name	Deadlock Chain Count	Deadlock Count	Log Used	Transaction Lost Time	Wait Time
		Current	Current	Current	Current	Current
WIN2012SQL1-SQL2012		.	1.00	0.13	14.99	2.51

Deadlock Summary By Database - (3 Instances)

Instance	Name	Deadlock Chain Count	Deadlock Count	Log Used	Transaction Lost Time	Wait Time
		Current	Current	Current	Current	Current
WIN2012SQL1-SQL2012	pso_admin_pack_dev	.	1.00	0.13	14.99	2.51

Deadlock Summary By Object - (3 Instances)

Instance	Name	Second Object Name	Deadlock Chain Count	Deadlock Count	Log Used	Transaction Lost Time	Wait Time
			Current	Current	Current	Current	Current
WIN2012SQL1-SQL2012		pso_admin_pack_dev.sys.syschobjs	.	1.00	.	25.79	25.78
WIN2012SQL1-SQL2012		pso_admin_pack_dev.dbo.DeadLockTest	.	1.00	0.13	14.99	2.51

MSSQL/PI Power Pack – File Groups / Files / Full Text Catalog

The image displays three screenshots of the MSSQL/PI Power Pack software interface, illustrating the File Groups, Files, and Full Text Catalog views. Red arrows highlight the 'File Groups Customizer' and 'Files Customizer' buttons.

File Groups - DB-MSSQL

Database	Name	% Free Latest	% Used Latest	Free Size Latest	Size Latest	Utilization Latest
psu_admin_pack_demo	<Log>	99.90	0.10	1,022.96	1,024.00	0.00
psu_admin_pack	PRIMARY					
psu_admin_pack	<Log>					
psu_admin_pack	PRIMARY					

Files - (3 Instances)

Instance	Database	File Group	Name	Type	Is Auto Grow	Is Growth By %	Growth Increment	% Free Latest	% Used Latest	Max Size Latest	Size Latest	Used Size Latest
DB-MSSQL	psu_admin_pack_dev	<Log>	psu_admin_pack_dev_log	Log			10%	92.53	7.47	2,097,152.00	1,363.06	101.86
DB-MSSQL	psu_admin_pack_dev	PRIMARY	psu_admin_pack_dev	Rows			1 MB	74.50	25.50	-1.00	4,096.00	1,044.56
WIN2012SQL1-SQL2012	psu_admin_pack_dev	<Log>	psu_admin_pack_dev_log									
WIN2012SQL1	psu_admin_pack_dev	PRIMARY	psu_admin_pack_dev									

Full Text Catalog - (3 Instances)

Instance	Database	Name	Index Size Period Avg	Item Count Period Avg	Table Count Latest
WIN2012SQL2-SQL2012					

MSSQL/PI Power Pack – Index Fragmentation Summary

The screenshot displays the 'Index Fragmentation Summary - (2 Instances)' application window. The main table lists index fragmentation data for two instances of WIN2012SQL1-SQL2012. The table columns include Instance, Object Name, Index Type, Partition Information (with sub-columns: #, Out Of, Estimated Rows, Reserved (mb), Avg. Fragmentation (%), Scans, and Lookup), and Us. The first row shows a CLUSTERED INDEX with 1 out of 1 estimated rows, 0 reserved MB, 0% fragmentation, 4 scans, and 1 lookup. A sidebar on the left contains a menu with options like Host Monitor, Instance Overview, Databases Overview, Jobs Overview, SQL PI Explorer, Advisories, Locks, Lock Statistics, Sessions, Plan Caches, Wait Events, Wait Statistics, SQL Agent Jobs, and Error Logs. Two pop-up windows are overlaid: 'Index Fragmentation Inputs' with fields for Min. Fragmentation % (0), Min. Partition Size In MB (0), and Min. Operations (0), and 'Databases Exclude Filter' with a list of databases and checkboxes for selection. Red arrows point from the 'Index Fragmentation Inputs' and 'Databases Exclude Filter' pop-up windows to the main table area.

Instance	Object Name	Index Type	Partition Information						Us
			#	Out Of	Estimated Rows	Reserved (mb)	Avg. Fragmentation (%)	Scans		Lookup
WIN2012SQL1-SQL2012		CLUSTERED INDEX	1	1	1	0	0	4	

MSSQL/PI Power Pack – Instances / Inventory

The image displays two screenshots from the MSSQL/PI Power Pack interface. The top screenshot shows the 'Instances - (2 Instances)' window, which includes a table of instance metrics and a context menu for the 'DB-MSSQL' instance. A red callout bubble labeled 'Advisory' points to the 'DB-MSSQL' instance. The bottom screenshot shows the 'Instances Inventory - (2 Instances)' window, which displays a table of instance details and a context menu for the 'DB-MSSQL' instance.

Instances - (2 Instances)

Name	Host Memory Utilization	Non SQL CPU Utilization	SQL Server CPU Utilization	SQL Server Memory Utilization	Total CPU Utilization
	Current	Current	Current	Current	Current
WIN2012SQL1-SQL2012	20.35	2.38	0.18	10.02	2.56
DB-MSSQL	19.30	4.58	0.32	3.19	4.91

Instances Inventory - (2 Instances)

Instance	Product	Edition	Service Pack	Operating System	# Processors	Physical Memory	Proc II
WIN2012SQL1-SQL2012							1
DB-MSSQL							1

MSSQL/PI Power Pack – Locks / Statistics

The screenshot displays two windows from the MSSQL/PI Power Pack application. The top window, titled "Locks - (3 Instances)", shows a table of locks across different instances and databases. A red arrow points to the "Databases Exclude Filter" dialog box, which is open over the table. The bottom window, titled "Lock Statistics - DB-MSSQL", shows a table of lock statistics for various database components. A context menu is open over the "Lock Statistics" row in this table.

Locks - (3 Instances)

Instance	Database Name	spid	Lock Count	Index Name	Object Name	Type	Mode	Status	Login Name
WIN2012SQL1-SQL2012	pso_admin_pack_dev	67	1			DATABASE	S	GRANT	
WIN2012SQL1	Host Monitor	66	1						
WIN2012SQL1	Instance Overview	59	1						
WIN2012SQL1	Databases Overview	58	1						
WIN2012SQL2	Jobs Overview	60	1						

Lock Statistics - DB-MSSQL

Name	Deadlocks Rate	Lock Requests Rate	Lock Timeouts Rate	Total Wait Time Rate	Total Waits Rate
	Current	Current	Current	Current	Current
AllocUnit
Applic
Datab	.	3.25	.	.	.
Extent	.	0.07	.	.	.
File	.	0.01	.	.	.
HoBT	.	0.14	.	.	.
Key	.	10.97	.	.	.
Metad	.	5.27	.	.	.
Object	.	6.20	.	.	.
OIB
Page	.	0.12	.	.	.
RID	.	0.05	.	.	.
RowG

MSSQL/PI Power Pack – Logical Disks / Log Shipping

Logical Disks Usage - (2 Instances)

Search

	Instance	Drive	Used %				Free Space				Used Space			
			Current	Period			Current	Period			Current	Period		
				Avg	Max			Avg	Max			Avg	Max	
✓	WIN2012SQL1-SQL2012	C:	65.18	65.18	65.18		13.89 GB	13.89 GB	13.89 GB		26.01 GB	26 GB	26.01 GB	
✓	DB-MSSQL		47.95	47.95	47.95		52.05 GB	52.05 GB	52.05 GB		47.95 GB	47.95 GB	47.95 GB	

- Host Monitor
- Instance Overview
- Databases Overview
- Jobs Overview
- SQL PI Explorer
- Advisories
- Locks
- Lock Statistics
- Sessions
- Plan Caches
- Wait Events
- Wait Statistics
- SQL Agent Jobs
- Error Logs

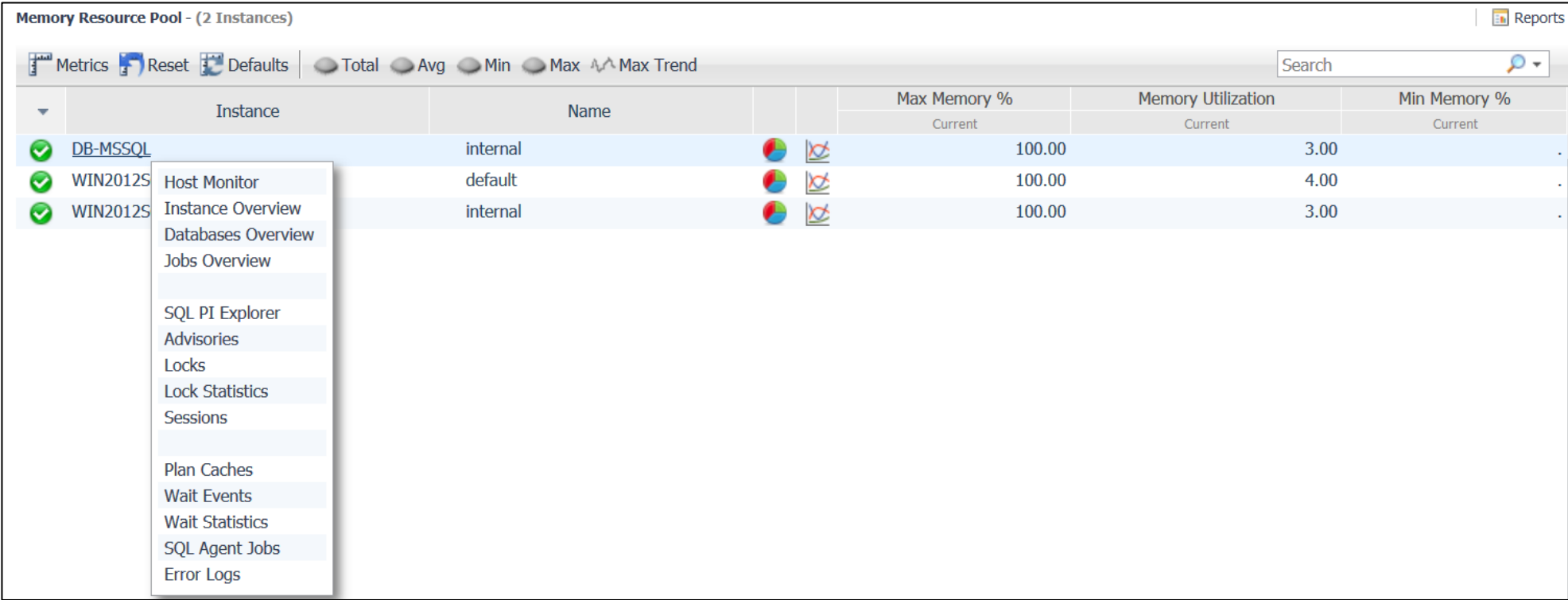
Log Shipping - (3 Instances)

Reports

Search

Server	DBName	Outage	Alert Job			Activities								Servers Time		
			Threshold	Threshold Alert	Alert Enabled	Activity Type	Last Activity Time	Last Backup File	Last Backup Time	Last Copy File	Last Copy Time	Last Restore File	Last Restore Time	Source	Target	Monitor
There Is No Data To Display																

MSSQL/PI Power Pack – Memory Resource Pool



MSSQL/PI Power Pack – Plan Caches / Services Status

The image displays two screenshots from the MSSQL/PI Power Pack interface. The top screenshot shows the 'Plan Caches - DB-MSSQL' window, and the bottom screenshot shows the 'Services Status - (2 Instances)' window. Both windows have a search bar and a 'Reports' button in the top right corner.

Plan Caches - DB-MSSQL

Metrics: Reset Defaults | Total Avg Min Max Max Trend

Name	Plan Cache Hit Rate (%)		Plan Cache Objects		Plan Cache Use Rate	
	Current		Current		Current	
Bound Trees	97.54		189.00			
Extended Stored Procedures	99.44		5.00			
Object Host Monitor	91.21		8.00		1.00	
SQL Instance Overview	93.39		234.00		2.00	
Temp Databases Overview	95.74		2.00			

Services Status - (2 Instances)

Instance	ADH	Browser	DTC	Full Text Search	OLAP	SQL Server Mail	SQL Server Agent	Writer	Integration
DB-MSSQL	Not Installed	Stopped	Running	Not Installed	Not Installed	-	Stopped	Running	Not Installed
WIN2012	Not Installed	Running	Running	Not Installed	Not Installed	-	Running	Running	Not Installed

MSSQL/PI Power Pack – Sessions

The screenshot displays the MSSQL/PI Power Pack Sessions interface. A red callout labeled "Filters" points to the "Filters" button in the top left. A "Kill Session" dialog box is open, showing a warning: "Killing a session requires having either sysadmin or processadmin privileges. Please provide a SQL Server account with any of these privileges." The dialog includes fields for "Authentication" (set to "Windows"), "User:", and "Password:". A red arrow points from the "Script:" field to the "SQL Activity" tab in the bottom right pane. The bottom right pane shows the "Sessions" tab with a table of active sessions.

Name	Active Connections	User Inactive Connections	SQL Batches Rate	Transactions Rate	Logins Rate	Blocked Connections	Total CPU Utilization
DB-MSSQL	23.00	20.00	5.48	1.23	0.02	.	4.18

SPID	DB User	Database	Status	Current Wait Time	CPU Usage	Memory Usage	Blocked By	Logical Reads	Physical Reads	Writes	Waiting On	Program	Host Name	Last SQL	Last Batch	Context Info	Last Command	Transaction Count	Last Batch
56			suspended	1.67	0.01	0.00	0	3.00	0.00	0.00	TRACEWRITE (Idle Time)					DB-MSSQL	SELECT	0	10/12/2018
62			suspended	1.52	0.00	0.00	0	3.00	0.00	0.00	TRACEWRITE (Idle Time)					DB-MSSQL	SELECT	0	10/12/2018
55			running	0.00	0.01	0.00	0	303.00	6.00	0.00						DB-MSSQL-QUERY_CURRENT_SESSIONS	SELECT	0	10/12/2018

MSSQL/PI Power Pack – SQL Agent Jobs

SQL Agent Jobs - (3 Instances)

Instance	Total Jobs	Failed	Cancelled	Retrying	Running	Successful	Never Ran
WIN2012SQL1-SQL2012	3	2	0	0	0	1	0
WIN2012SQL2-SQL	3	1	0	0	0	2	0
DB-MSSQL	1	0	0	0	0	0	1

Failed Jobs

Instance	Job Name	Category	Enabled	Current Status	Curr Step #	Outcome	Time	Finish	Duration	Next Run Time	Description
WIN2012SQL1-SQL2012	LiteSpeed Backup Template Fast Compression All DBs (version 1)	[Uncategorized (Local)]	On	Completed		Fail	2018-12-07 02:00:05	2018-12-07 02:00:05	00h 00m 05s	2018-12-10 02:00:00	LiteSpeed Backup Template Fast Compression All DBs (version 1)
WIN2012SQL1-SQL2012	LiteSpeed for SQL Server Update Native Backup statistics	[Uncategorized (Local)]	On	Completed		Fail	2018-12-10 00:15:00	2018-12-10 00:15:00		2018-12-10 00:30:00	LiteSpeed for SQL Server Update Native Backup statistics

MSSQL/PI Power Pack – Wait Events / Wait Statistics

Wait Events - (3 Instances)

Metrics

Reset

Defaults

Total

Avg

Min

Max

Max Trend

Search

Name	CLR Wait Rate	CPU Usage Rate	CPU Wait Rate	I/O Wait Rate	Latch Wait Rate	Lock Wait Rate	Memory Wait Rate	Network Wait Rate	Other Wait Rate	Remote Provider Wait Rate	XTP Wait Rate
	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current	Current
WIN2012SQL1-SQL2012
WIN2012SQL2-S
DB-MSSQL	.	0.00	.	.	.	.	.	.	.	.	.

Host Monitor

Instance Overview

Databases Overview

Jobs Overview

SQL PI Explorer

Advisories

Locks

Lock Statistics

Sessions

Plan Caches

Wait Events

Wait Statistics

SQL Agent Jobs

Error Logs

Wait Statistics - DB-MSSQL

Total

Avg

Min

Max

Max Trend

Search

Main Category	Sub-Category	Name	Wait Time
			Latest
✓ CLR Wait	CLR Wait	CLR_AUTO_EVENT	.
✓ CPU Wait	CPU Wait	SOS_SCHEDULER_YIELD	0.05
✓ I/O Wa	I/O Completion	ASYNC_IO_COMPLETION	.
✓ I/O Wa	I/O Completion	IO_COMPLETION	.
✓ I/O Wa	I/O Completion	WRITE_COMPLETION	.
✓ I/O Wa	I/O Data Page	PAGEIOLATCH_EX	0.00
✓ I/O Wa	I/O Data Page	PAGEIOLATCH_SH	0.01
✓ I/O Wa	I/O Data Page	PAGEIOLATCH_UP	.
✓ I/O Wa	I/O Data Page	PREEMPTIVE_OS_CREATEFILE	.
✓ I/O Wa	I/O Data Page	PREEMPTIVE_OS_FILEOPS	.
✓ I/O Wa	Latch Buffer	PAGELATCH_EX	0.07
✓ I/O Wa	Latch Buffer	PAGELATCH_SH	0.00
✓ Latch V	Internal Cache Latch	LATCH_SH	0.00
✓ Lock W	Lock Schema	LCK_M_SCH_M	.
✓ Lock W	Lock Shared	LCK_M_S	.
✓ Log Wa	Log Buffer	LOGBUFFER	.
✓ Log Wa	Log Write	CHKPT	.

Host Monitor

Instance Overview

Databases Overview

Jobs Overview

SQL PI Explorer

Advisories

Locks

Lock Statistics

Sessions

Plan Caches

Wait Events

Wait Statistics

SQL Agent Jobs

Error Logs

MSSQL/PI Power Pack – Perfmon / UDC

The image displays two screenshots from the Microsoft Management Console (MMC) showing the Windows Performance Monitor (Perfmon) and User Defined Collections (UDC) interfaces.

Top Screenshot: Windows Performance Monitor - (3 Instances)

- The main window shows a list of performance metrics. The status bar indicates "There Is No Data To Display".
- A red box highlights the "Actions" menu, specifically the "Rebuild Perfmon" option.
- A red arrow points from the "Rebuild Perfmon" option to the "Performance Counters Exclude Filter" dialog box.
- The "Performance Counters Exclude Filter" dialog box is open, showing a search bar and buttons for "Select All", "Select None", and "Apply".

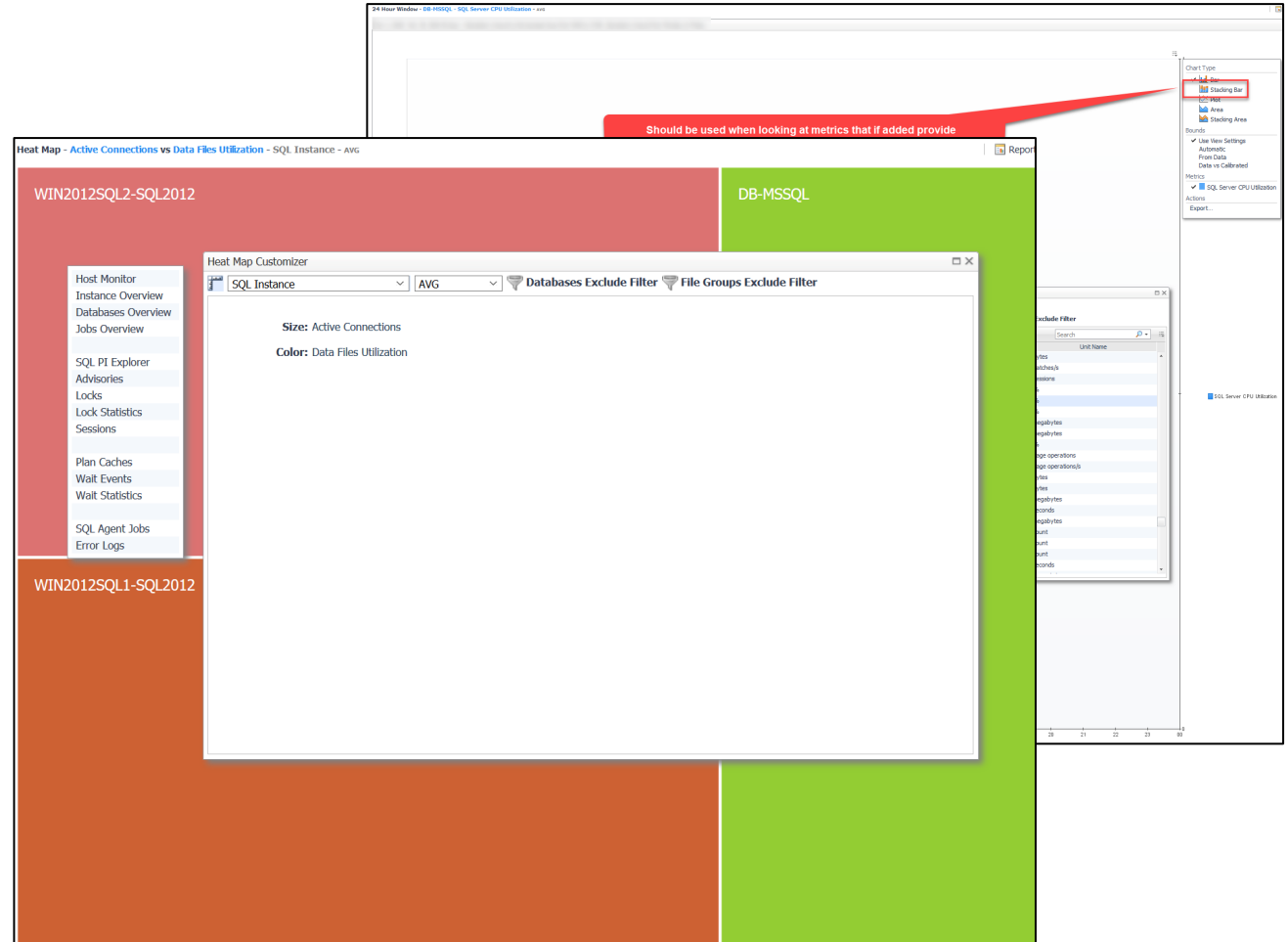
Bottom Screenshot: User Defined Collections - (2 Instances)

- The main window shows a list of user-defined collections. The status bar indicates "There Is No Data To Display".
- A red box highlights the "Actions" menu, specifically the "Rebuild UDCs" option.
- A red arrow points from the "Rebuild UDCs" option to the "UDCs (User Defined Collections) Exclude Filter" dialog box.
- The "UDCs (User Defined Collections) Exclude Filter" dialog box is open, showing a search bar and buttons for "Select All", "Select None", and "Apply".
- The dialog box contains a list of collections, with "Test1" selected.

Instance	Collection	Name	last_clear (UDC)	last_clear_Rate (UDC)
WIN2012SQL1-SQL2012	Test1			
WIN2012SQL1-SQL2012	Host Monitor			
WIN2012SQL1-SQL2012	Instance Overview			
WIN2012SQL1-SQL2012	Databases Overview			
WIN2012SQL1-SQL2012	Jobs Overview			
WIN2012SQL1-SQL2012	SQL PI Explorer			
WIN2012SQL1-SQL2012	Advisories			
WIN2012SQL1-SQL2012	Locks			
WIN2012SQL1-SQL2012	Lock Statistics			
WIN2012SQL1-SQL2012	Sessions			
WIN2012SQL1-SQL2012	Plan Caches			
WIN2012SQL1-SQL2012	Wait Events			
WIN2012SQL1-SQL2012	Wait Statistics			
WIN2012SQL1-SQL2012	SQL Agent Jobs			
WIN2012SQL1-SQL2012	Error Logs			

MSSQL/Power Pack - Analytics

- 24 Hour Window View
 - Get Insight into how a resource is utilized within a 24 hour day based on historical data.
- Analyze Data Using
 - Time Plot Charts
 - Time Bar Charts
 - Clustered Bar Charts
- Advanced Analytics Using:
 - Bubble Charts
 - Scatter Charts
 - Heat Maps



MSSQL/PI Power Pack - Drag & Drop

- All the views can be dragged:
 - Directly from the Views Tab
 - By dragging one or more instances
 - By dragging a service
 - By dragging a group
- All the views have advanced customizers to allow for the selection of the instances, groups, services, metrics, to apply filters when applicable.
 - Certain filters have defaults defined in the registry variables but can be overridden using the customizers.

MSSQL/PI Power Pack - Drag & Drop

The image displays two screenshots of the MSSQL/PI Power Pack interface, illustrating the drag-and-drop functionality for customizing charts.

Chart Customizer (Top Left):

- Instance Selector:** A dropdown menu showing the selected SQL Instance (e.g., SQL Instance).
- Metric Selector:** A list of metrics including Backup Locations, Deadlock Summary Application, Deadlock Summary Database, Deadlock Summary Object, Lock Statistics, Logical Disks, Memory Summary Resource Pool, Instance Wait Events, Plan Cache, Wait Statistics, UDC (User Defined Collections), Performance Counters, Databases, File Groups, Files, Full Text Catalog, Tempdb, and Tempdb Usage.
- Collection Selector:** A dropdown menu showing the selected collection (e.g., DEFAULT).
- Metric value to display:** A dropdown menu showing the selected metric value (e.g., AVG, MAX, MIN, SUM).
- Click to switch tab:** A button to switch between tabs.

Bubble Chart Customizer (Bottom Right):

- File Groups:** A dropdown menu showing the selected file group (e.g., File Groups).
- Metric Selector:** A list of metrics including X Axis Metric: % Free, Y Axis Metric: % Used, and Size: Utilization.
- Metric value to use:** A dropdown menu showing the selected metric value (e.g., AVG, MAX, MIN, SUM, PERIOD AVG, PERIOD MAX, PERIOD MIN, PERIOD SUM).
- Click to Switch:** A button to switch between tabs.

MSSQL/PI Power Pack - Report

- Very flexible report allows to specify which views to print and in which order for maximum flexibility.
- Ability to specify
 - Time Range
 - Views to print (All views available for output – No Analytics)
 - Order in which to print the views
 - Ability to specify which metrics to display per view
 - Exclude Filters for:
 - Databases
 - File Groups
 - Jobs
 - Group, Service or/and List of Instances

MSSQL/PI Power Pack – Capacity Planning

- 3 distinct Capacity Planning Sections:
 - Days to Full
 - Trends
 - Value in N Days

Mode		Past Days	Forecast Days	Value To Use	
% of Capacity	10	180	180	MAX	Apply
Maximum Capacity		30	30	AVG	
% of Capacity		60	60	MAX	
		90	90		
		180	180		

MSSQL/PI Power Pack – **Capacity Planning** – Days To Full

- Days to full is used to indicate the number of days it would take before the resource is exhausted.
- It also offers the ability to view number of days to reach 70%, 80% and 90% capacity. To display the desired information, click on the respective icon the toolbar.
- Views available for:
 - Databases
 - File Groups
 - Files
 - Instances
 - Logical Disks

MSSQL/PI Power Pack – Capacity Planning – Days To Full

Databases Days To Full - WIN2012SQL1-SQL2012

70% 80% 90% Search

	Name	Status	DB ID	Data Files Used Space	Log Files Used Space
				Full	Full
⚠	WIN2012SQL1-SQL2012	ONLINE	5	2+ Years	2+ Years
⚠	WIN2012SQL1-SQL2012	ONLINE	9	2+ Years	2+ Years
⚠	WIN2012SQL1-SQL2012	ONLINE	11	2+ Years	2+ Years
⚠	WIN2012SQL1-SQL2012	ONLINE	12	2+ Years	2+ Years
⚠	WIN2012SQL1-SQL2012	ONLINE	10	41	2+ Years
⚠	WIN2012SQL1-SQL2012	ONLINE	7	10	2+ Years
✖	WIN2012SQL1-SQL2012	ONLINE	8	FULL	2+ Years

File Groups Days To Full - (2 Instances)

70% 80% 90% Search

	Instance	Database	Name	Used Size
				90% Full
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	<Log>	127 141
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	PRIMARY	33 37
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	<Log>	16 10.0625 megabytes
			<Log>	7 7
			PRIMARY	FULL FULL

Files Days To Full - (3 Instances)

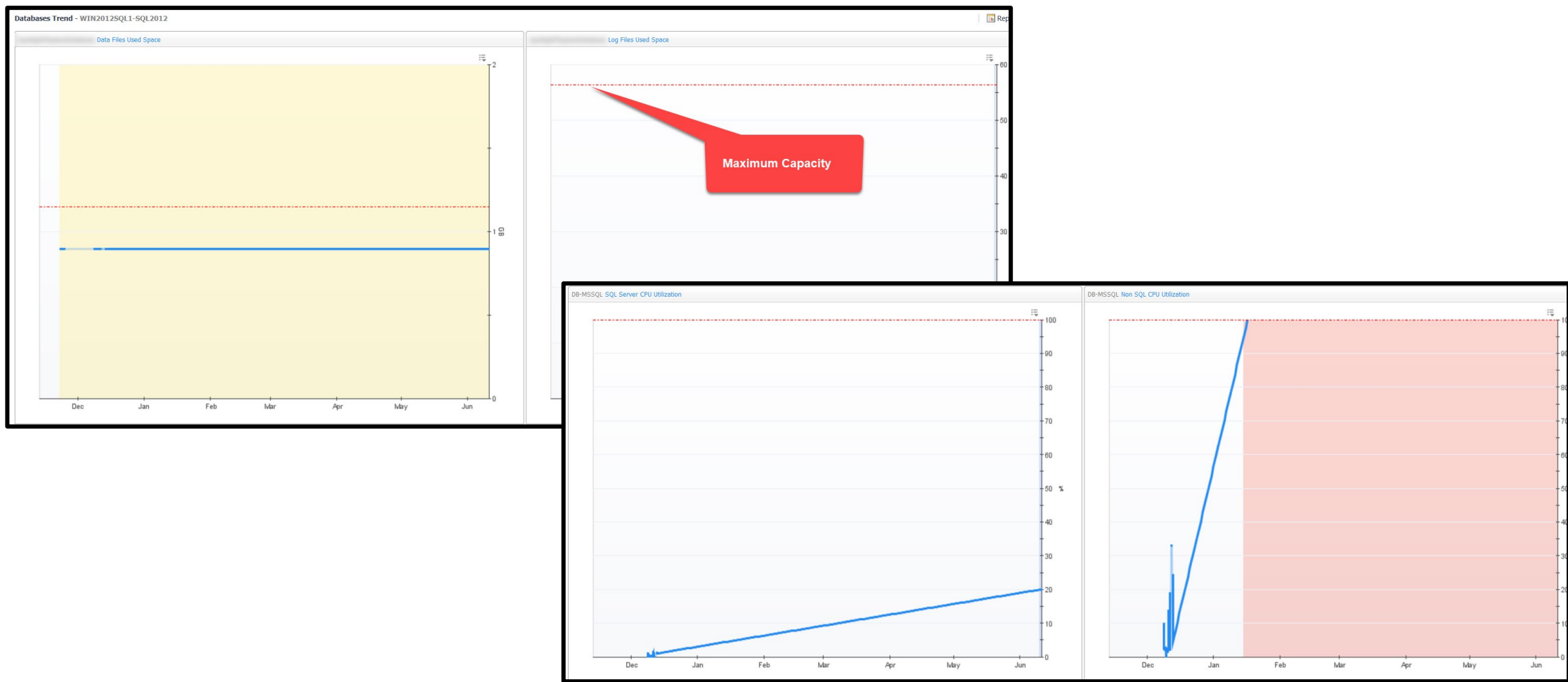
70% 80% 90% Search

	Instance	Database	File Group	Name	Type	Is Auto Grow	Is Growth By %	Growth Increment	Used Size
									70% 80% 90% Full
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	<Log>	WIN2012SQL2-SQL2012	Log	⚡	⚡	10%	77 88 99 110
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	PRIMARY	WIN2012SQL2-SQL2012	Rows	⚡	⚡	1 MB	29 33 37 41
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	<Log>	WIN2012SQL2-SQL2012	Log	⚡	⚡	10%	12 14 15 17
✓	WIN2012SQL2-SQL2012	WIN2012SQL2-SQL2012	<Log>	WIN2012SQL2-SQL2012	Log	⚡	⚡	10%	6 7 8 9
✓	WIN2012SQL1-SQL2012	WIN2012SQL1-SQL2012	PRIMARY	WIN2012SQL1-SQL2012	Rows	⚡	⚡	1 MB	FULL 52.0 megabytes FULL

MSSQL/PI Power Pack – Capacity Planning – Trends

- Trending is designed to provide a graph that shows past data, future data and the maximum capacity (red dotted line) used.
- It also highlights the section that is closest to the maximum:
 - $\geq 95\%$ Red
 - $\geq 85\%$ Orange
 - $\geq 75\%$ Yellow
 - $< 75\%$ Blue
- Views available for:
 - Databases
 - File Groups
 - Files
 - Instances
 - Logical Disks

MSSQL/PI Power Pack – Capacity Planning – Trends



MSSQL/PI Power Pack – **Capacity Planning** – Value in N Days

- Value In N Days is used to provide an estimation of how much a resource is going to be utilized in 7, 30, 60, 90 and 180 Days.
- Views available for:
 - Databases
 - File Groups
 - Files
 - Instances
 - Logical Disks

MSSQL/PI Power Pack – Capacity Planning – Value in N Days

Databases Value In N Days - WIN2012SQL2-SQL2012 Reports

7 Days 30 Days 60 Days 180 Days

	Name	Status	DB ID	Data Files Used Space			Log Files Used Space		
				7	90	180	7	90	180
✓	DB-MSSQL	ONLINE	6	.	.	.	.	.	.
✓	WIN2012SQL1-SQL2012	ONLINE	5	.	.	.	.	.	.
⚠	WIN2012SQL2-SQL2012	ONLINE	10	.	.	.	1.47	FULL	FULL
⚠	DB-MSSQL	ONLINE	7	9.28	FULL	FULL	51.42	FULL	FULL
⚠	WIN2012SQL1-SQL2012	ONLINE	8	Value: 9.281431889784802 megabytes Max: 10.0625 megabytes			0.38	0.68	FULL
✓	WIN2012SQL2-SQL2012	ONLINE	9	.	.	.	.	.	.

Instances Value In N Days - (3 Instances) Reports

7 Days 30 Days 60 Days 180 Days

	Name	Host Memory Utilization			SQL Server Memory Utilization			SQL Server CPU Utilization			Non SQL CPU Utilization			Total CPU Utilization		
		7	90	180	7	90	180	7	90	180	7	90	180	7	90	180
⚠	DB-MSSQL	45.94	FULL	FULL	.	.	.	1.65	10.41	19.92	28.87	FULL	FULL	30.55	FULL	FULL
⚠	WIN2012SQL1-SQL2012	Value: 45.938429760713106 % Max: 100			.	.	.	.	.	.	.	.	.	.	.	.
⚠	WIN2012SQL2-SQL2012	.	.	.	.	.	.	0.51	3.06	5.84	.	.	.	.	.	.

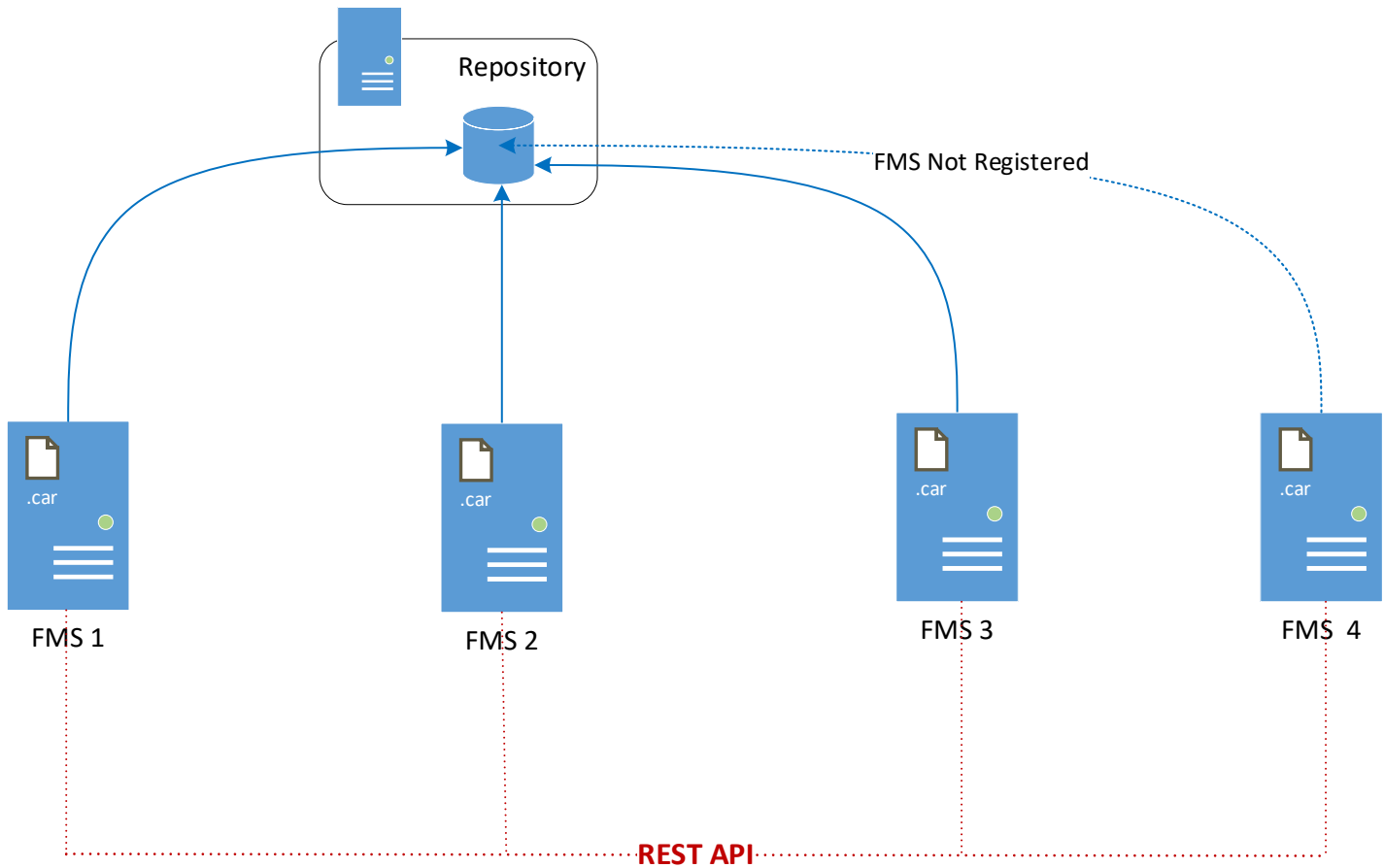
Logical Disks Value In N Days - (3 Instances) Reports

7 Days 30 Days 60 Days 180 Days

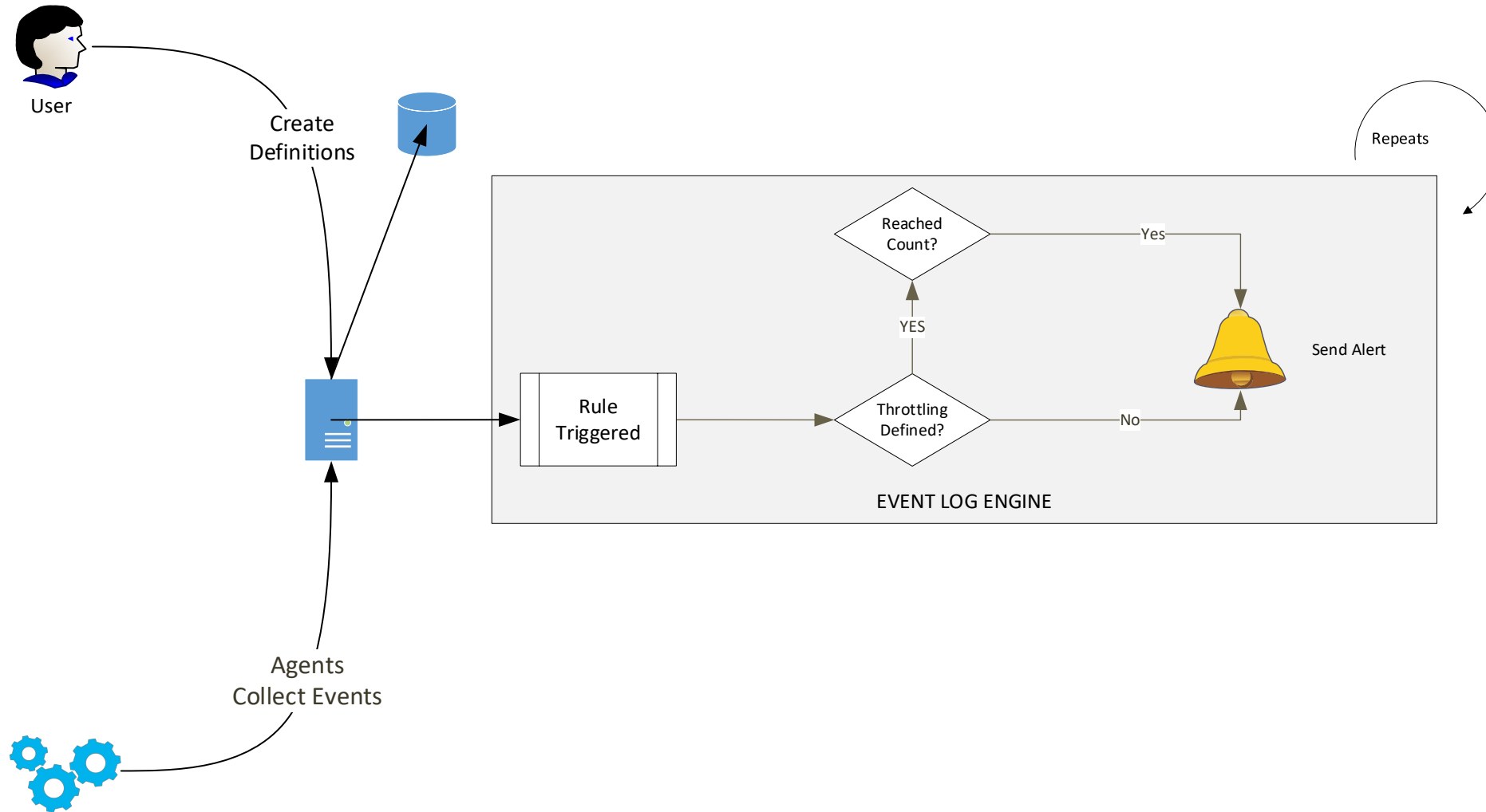
	Instance	Name	Disk Utilization		
			7	90	180
✓	DB-MSSQL	C:	49.57	61.77	75.01
✓	WIN2012SQL1-SQL2012	C:	65.20	65.21	65.21
✓	WIN2012SQL2-SQL2012	C:	.	Value: 65.20282478461665 % Max: 100	



MSSQL/PI Power Pack - Log Alerting



MSSQL/PI Power Pack - Log Alerting Flow



File Event Log – Throttling Definition

SQL Server Error Log Throttle Definitions

Add Save Undo Filter Delete Edit Search

	Service Name	Host Name	Instance	Severity ID	Message	Duration (Seconds)	Count in Duration	Merge
There Is No Data To Display								

Add Throttle Definition

Service Name:

Host Name:

Instance:

Severity ID:

Message:

Duration (Seconds):

Count in Duration:

Merge: ☒

PER_DEFINITION
PER_HOST
PER_INSTANCE

Add Cancel

File Event Log – Auto Clear Definition

SQL Server Error Log Auto Clear Definitions Reports

Add Save Undo Filter Delete Edit Time Search

Service Name	Host Name	Instance	Severity ID	Message	Time (Minutes)
There Is No Data To Display					

Add Auto Clear Definition

Service Name:

Host Name:

Instance:

Severity ID:

Message:

Time (Minutes):

Add Cancel

MSSQL/PI Power Pack - Changing Settings

▼ Bookmarks

There are no bookmarks

► Homes

► Dashboards

▼ Foglight Servers

Local FMS

Search

Host Name

○

↑ fms-593 8080

MSSQL Power Pack Registry Settings - Local FMS

Save Undo Filter

Name	Value	Scoping	
■ Debug			
PSO.MSSQLPowerPack.Debug	true		Whether or not to enable debug mode in the MSSQL Power Pack solution.
■ UI			
PSO.MSSQLPowerPack.UI.BackupJobs.Keywords	backup,bckp		Comma separated list of keywords that if found as part of the job's name the job is considered to be
PSO.MSSQLPowerPack.UI.DefaultExcludedDatabases	master,model,tempdb,msdb,mssqlsys...		Comma separated list of databases to be excluded in the UI and Reports. The database name lookup
PSO.MSSQLPowerPack.UI.DefaultExcludedFileGroups			Comma separated list of file groups to be excluded in the UI and Reports. The file group name lookup
PSO.MSSQLPowerPack.UI.DefaultExcludedUDCs			Comma separated list of User Defined Collections to be excluded in the UI and Reports. The UDC name
PSO.MSSQLPowerPack.UI.DefaultExcludedPerfmon			Comma separated list of Perfmon Collections to be excluded in the UI and Reports. The Perfmon name
■ Metrics			
PSO.MSSQLPowerPack.Metrics.DefaultForSQLInstance			Comma separated list of Metric Names to use as the defaults when the SQL Instance collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForLockStatistics			Comma separated list of Metric Names to use as the defaults when the Lock Statistics collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForLogicalDisks			Comma separated list of Metric Names to use as the defaults when the Logical Disks collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForMemorySummaryResourcePool			Comma separated list of Metric Names to use as the defaults when the Memory Summary Resource Pool collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForInstanceWaitEvents			Comma separated list of Metric Names to use as the defaults when the Instance Wait Events collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForPlanCache			Comma separated list of Metric Names to use as the defaults when the Plan Cache collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForDatabases			Comma separated list of Metric Names to use as the defaults when the Databases collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForFileGroups			Comma separated list of Metric Names to use as the defaults when the File Groups collection is selected
PSO.MSSQLPowerPack.Metrics.DefaultForFiles			Comma separated list of Metric Names to use as the defaults when the Files collection is selected. The
PSO.MSSQLPowerPack.Metrics.DefaultForTempDB			Comma separated list of Metric Names to use as the defaults when the Temp DB is selected. The
■ Group Overview			
PSO.MSSQLPowerPack.GroupOverview.DefaultExcludedDatabases	master,model,tempdb,msdb,mssqlsystemresourc...		Comma separated list of databases to be excluded in the Group Overview Databases section. The
PSO.MSSQLPowerPack.GroupOverview.Rules.Availability	DBSS - Instance Availability		Comma separated list of rule names to be used in the Group Overview view to drive the Availability S
PSO.MSSQLPowerPack.GroupOverview.Rules.Blocking	DBSS - Blockers Connections Recycling D		Comma separated list of rule names to be used in the Group Overview view to drive the Blocking con

Remote Administration of the solution across servers

MSSQL/PI Power Pack – Rule Management

MSSQL Power Pack Rule Management - Local FMS

Select All Select None Disable Enable

Category / Title ▲	Enabled	
Alerting		
<input type="checkbox"/> Error Log Record		Generates alarms for error logs based on the Throttle definitions.
<input type="checkbox"/> Health Score		Generates alarms for when the health of an instance starts degrading.
Clean Up		
<input type="checkbox"/> Auto Clear Alarms		Handles auto clearing of the various generated error log alarms based on the defined auto-clear settings.
FMS		
<input type="checkbox"/> Ping		Handles updating the FMS Ping Time
UI		
<input type="checkbox"/> Performance Counters		Periodically rebuilds the Perfmon Collections and metrics in order to be used with the solution.
<input type="checkbox"/> UDCs (User Defined Collections)		Periodically rebuilds the UDCs and metrics in order to be used with the solution.

Remote Administration of the solution across servers

MSSQL/PI Power Pack - System Requirements

- **Minimum required FMS version**
5.9.3

• Supported Databases	Minimum Version
Microsoft SQL	2008 (version 10.0.1600 or later)
Oracle	9i R2
MySQL	5.1.45
PostgreSQL	9.4.0

• Supported Agent	Minimum Version
SQL Server	5.7.5.30
SPI	1.4.0