

AimBetter Solution User Guide

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1. Opportunity

Data and information are some of any organization's most valuable assets—and database administrators (DBAs) are key guardians of those assets. The DBA's primary responsibilities have been to ensure that data is safely, securely, accurately, and appropriately stored, managed, and kept accessible to users. DBAs must ensure that organizations have the needed capacity to meet their data requirements; that databases perform at optimal levels, and provide the necessary services demanded by users. As well, security of the data, and ability to recover quickly and completely in the event of failure, are two of the most important requirements.

Whenever problems arise, DBAs are the ones called on to troubleshoot and resolve the issues effectively and efficiently. In order for DBAs to perform all of these complex tasks, a range of tools aimed at simplifying and expediting the job are offered, both by database platform providers themselves, and by software service providers.

In this sense, the world of database and application servers is saturated with monitoring products. But choosing the right one is not simply a matter of price or range of support offered. The implementation of such products in itself may cause a significant waste of your time. It requires extensive training, dedicated resources, long days and sometimes even weeks or months before any benefits can start to be seen in your organization.

- ✗ Extensive installation and integration effort on-premises (costing you resources time and expense)
- ✗ Constant need for version updates (non-productive effort)
- ✗ Need for dedicated hardware, software licences and repository space for the monitoring system on site (which could in the end exceed the actual cost of the software package you have bought)

2. How is our solution different?

AimBetter is a total solution providing 24/7 real-time monitoring for DB and application servers in the organization designed as a SaaS in the cloud!

- ✓ Without requirement for installation - AimBetter just requires our simple agent running on a server anywhere inside your network.
- ✓ no dedicated hardware onsite
- ✓ no separate database or repository licenses
- ✓ no operating system licenses
- ✓ no impact on functionality in your own environment
- ✓ no requirement for added administration by your team
- ✓ no involvement in version updates

AimBetter does not concentrate purely on database health. Like a good doctor, AimBetter is interested in the complete picture.

- covers the whole environment
- measures storage, hardware, operating system and network metrics
- monitors all core SQL database elements
- collects data, packages and transmits it securely into our environment, then performs all analysis in the cloud
- reports via our website accessible on desktop, tablet and mobile devices with complete security.

AimBetter identifies and helps you in solving of performance issues quickly and easily.

3. Exploring AimBetter

AimBetter's agent can be installed in just minutes on any computer inside your domain. Then, as soon as data collection starts, you can begin using AimBetter to monitor your application server and SQL performance.

There are five navigation tabs on the AimBetter console:

- Alerts
- Performance
- Queries
- QAnalyser
- Observer

4. Alerts

Alerts identify the basic condition inside the SQL server that requires attention, and the range of alerts covers both pure SQL Server functions, as well as most of the supporting hardware and operating system metrics. A complete list of all the alerts, with explanations and recommendations for treatment, is available inside our [blog](#) page. There are in total more than 40 individual alert conditions.

AimBetter Alerts identifies and displays alerts from within the AimBetter solutions of all the monitored systems in a simple, clear and comprehensive dashboard. From this one starting point, all relevant screens are accessible in simple clicks in a natural drill-down flow.

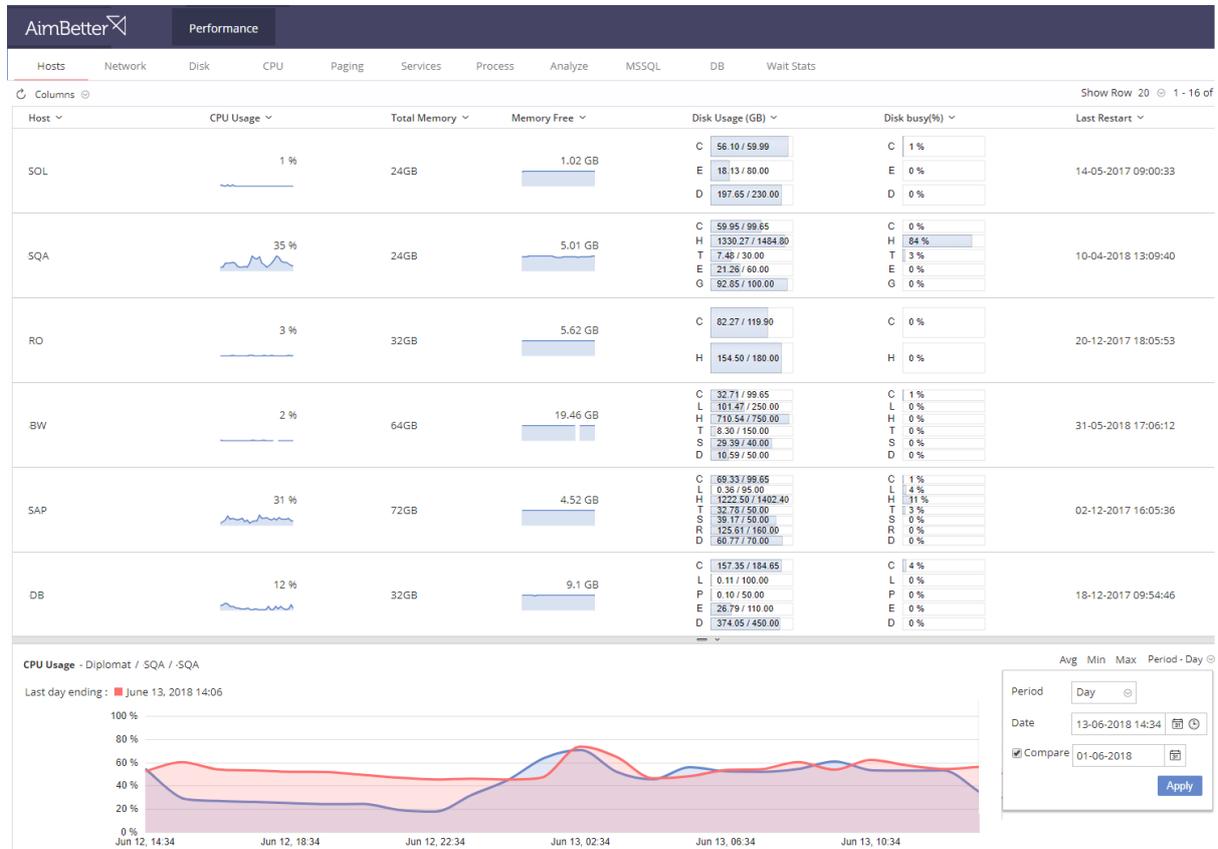


Essential capabilities

- Deviations from the critical metrics for database and operating system flagged as Alerts.
- Ability for a retrospective look at the state of the system in a different timeframe.
- Alert notifications can be distributed to specific users through push mechanisms at the time of the fault (via email, SMS, etc.)
- Threshold alert levels are set to match your own experience and expectations, with ability to set multiple levels indicating degree of urgency, through 'informative', followed by 'medium', 'important' and finally 'critical'.
- Alerts are prioritized on the dashboard in severity order to allow most critical actions first.
- One-click expansion of the SQL server will display full details of all alerts that are current on that computer.

5. Performance

AimBetter Performance analyses and centralizes critical system metrics in an easy but comprehensive display for the presentation of system integrity quickly and simply.



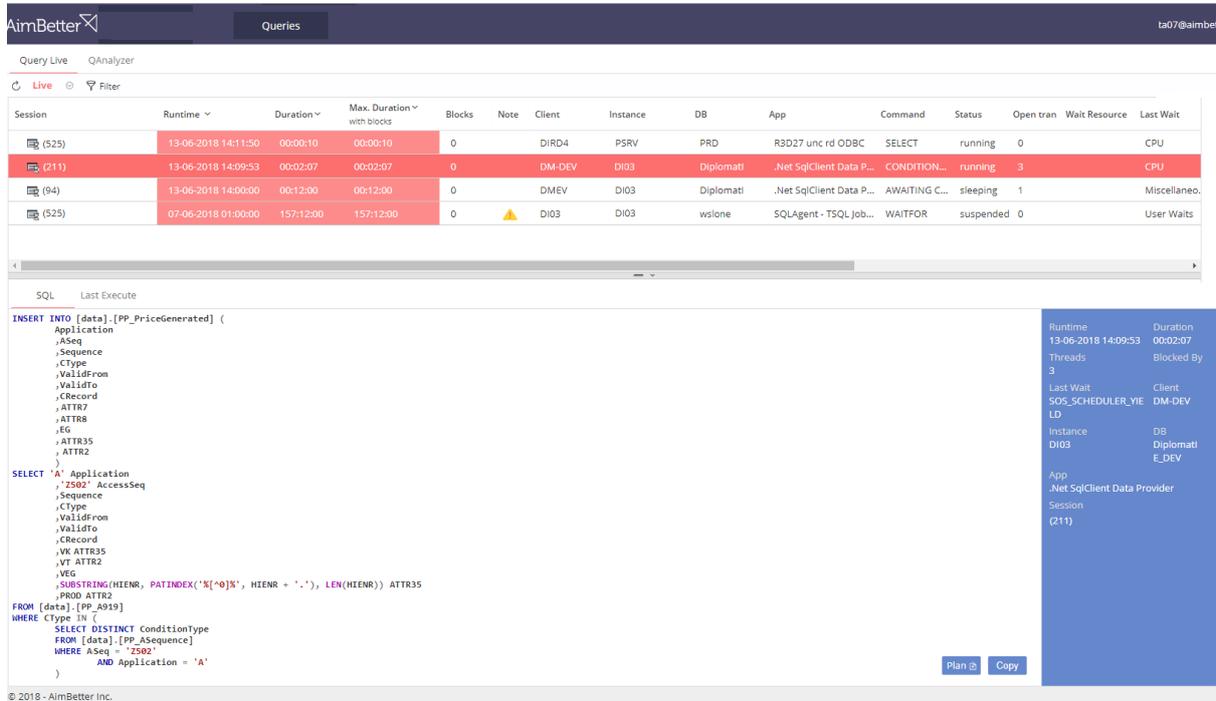
Essential capabilities

- Analysis and display of more than 300 system metrics *
 - Centralized display of all the Operating System and SQL server performance metrics in one screen, regardless of where the servers are located*.
 - Quick and effective identification of any application which is putting strain on the server.
 - Advanced UI, with simple and direct navigation capability between the metrics.
 - Ability to drill-down directly to expose underlying measurements
 - One-click expansion of the performance metric will display graphical the history of that over the previous 24 hours and correlate current against historical data
 - Comparison of performance according to custom choices (Days, Weeks, Avg., Min, Max etc.)
- * In accordance with the chosen plan and on designated servers.

6. Queries

AimBetter Queries screen displays problematic queries in real-time, which are causing issues in response times and loads, including the performance of analysis of latches, as shown in the following tabs:

Query Live



The screenshot shows the 'Query Live' interface with a table of active queries. The table has columns for Session, Runtime, Duration, Max. Duration with blocks, Blocks, Note, Client, Instance, DB, App, Command, Status, Open tran, Wait Resource, and Last Wait. Three queries are listed, with the second one (Session 211) highlighted in red, indicating it is the selected query.

Session	Runtime	Duration	Max. Duration with blocks	Blocks	Note	Client	Instance	DB	App	Command	Status	Open tran	Wait Resource	Last Wait
(525)	13-06-2018 14:11:50	00:00:10	00:00:10	0		DIRD4	PSRV	PRD	R3D27 unc rd ODBC	SELECT	running	0		CPU
(211)	13-06-2018 14:09:53	00:02:07	00:02:07	0		DM-DEV	DI03	DiplomatI	.Net SqlClient Data P...	CONDITION...	running	3		CPU
(94)	13-06-2018 14:00:00	00:12:00	00:12:00	0		DMEV	DI03	DiplomatI	.Net SqlClient Data P...	AWAITING C...	sleeping	1		Miscellaneous
(525)	07-06-2018 01:00:00	157:12:00	157:12:00	0		DI03	DI03	wslone	SQLAgent - TSQL Job...	WAITFOR	suspended	0		User Waits

Below the table, the SQL query for the selected session (211) is displayed. The query is an INSERT INTO statement followed by a SELECT statement. The SELECT statement filters for records where the Application is 'A' and the AccessSeq is '2502'. The query also includes a WHERE clause for the Application and AccessSeq values.

```

INSERT INTO [data].[PP_PriceGenerated] (
    Application
    ,ASeq
    ,Sequence
    ,CType
    ,ValidFrom
    ,ValidTo
    ,CRecord
    ,ATTR7
    ,ATTR8
    ,EG
    ,ATTR35
    ,ATTR2
)
SELECT 'A' Application
    ,'2502' AccessSeq
    ,Sequence
    ,CType
    ,ValidFrom
    ,ValidTo
    ,CRecord
    ,VT ATTR35
    ,VT ATTR2
    ,VEG
    ,SUBSTRING(HIENR, PATINDEX('%*%*', HIENR + '.'), LEN(HIENR)) ATTR35
FROM [data].[PP_A919]
WHERE CType IN (
    SELECT DISTINCT ConditionType
    FROM [data].[PP_ASequence]
    WHERE ASeq = '2502'
    AND Application = 'A'
)
    
```

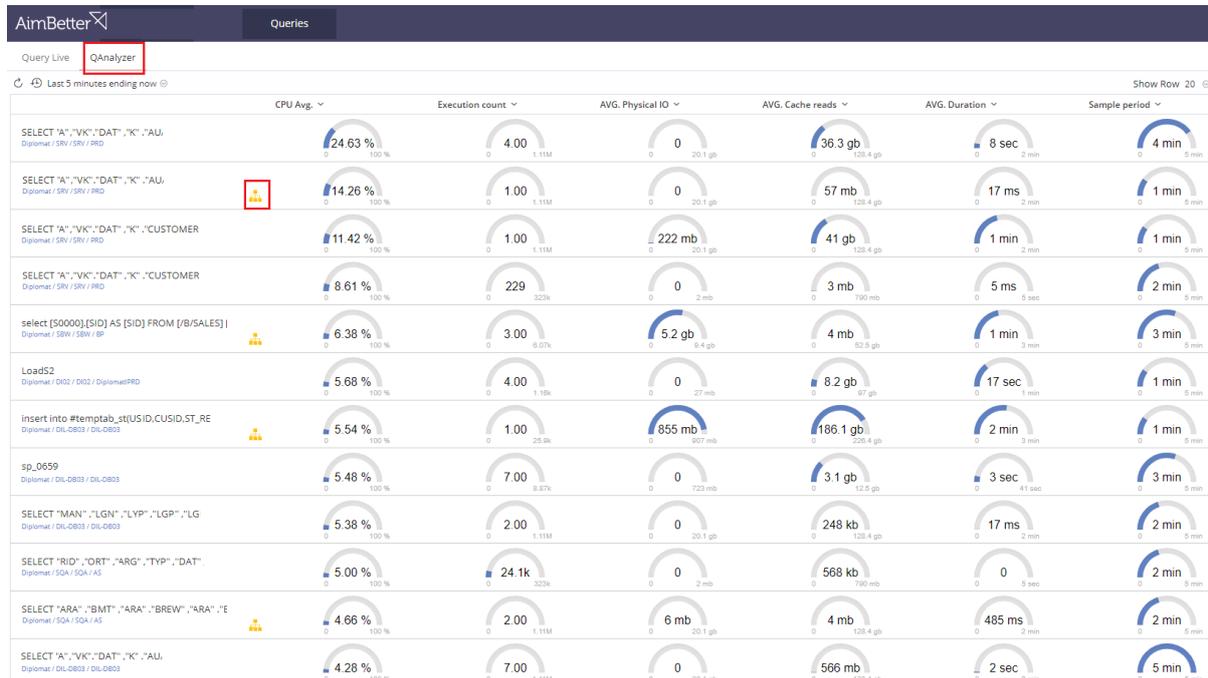
On the right side of the interface, a metadata panel for the selected query (Session 211) is shown, including details like Runtime (13-06-2018 14:09:53), Duration (00:02:07), Threads (3), and Client (SOS_SCHEDULER_YE).

Essential capabilities

- Display of queries in real-time.
 - Fast and intelligent filtering for quick identification of the cause of the fault
 - Reports anomalies in plan being executed
 - Drill-down through faults and queries to identify any co-incident events (e.g anti-virus, snapshots, backups etc.)
 - Displays the actual query running, with ability to immediately download the execution plan.
- * History is available as defined in the chosen contract and on designated servers

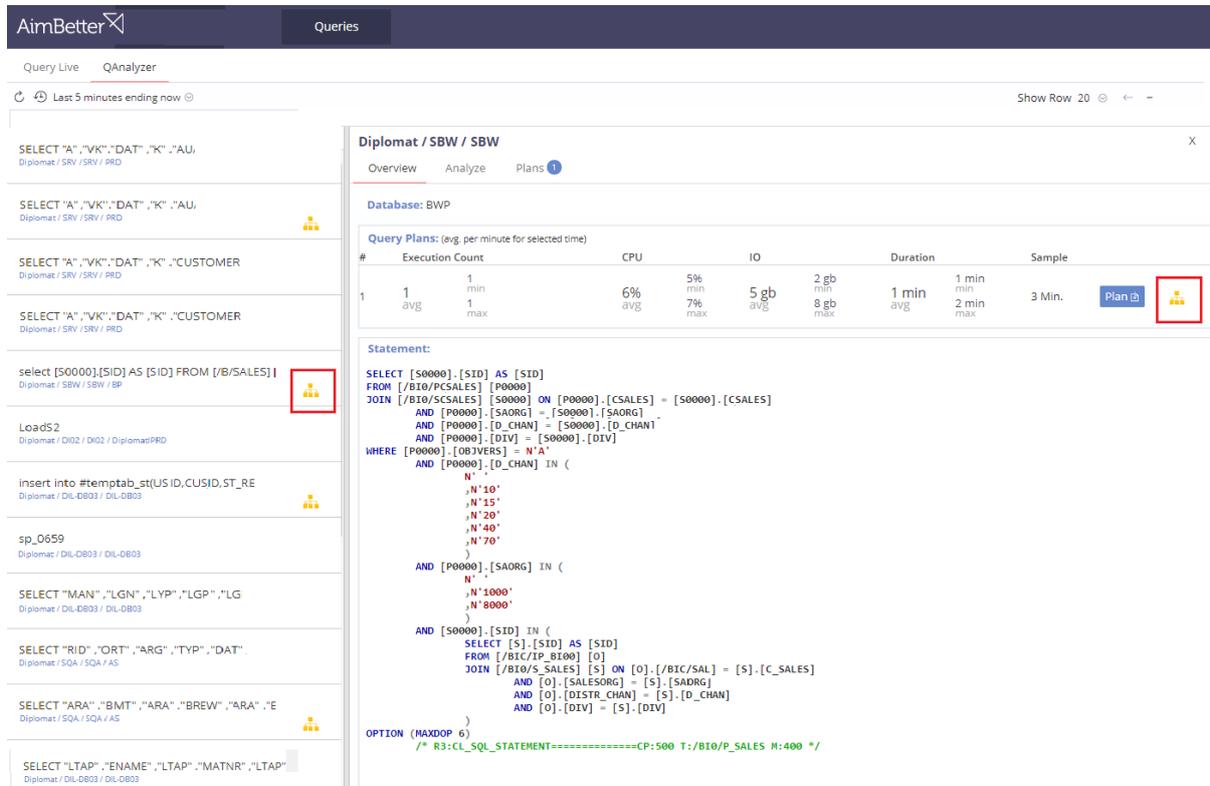
QAnalyzer

Aimbetter QAnalyzer performs analysis and displays the queries with highest of the server's processor and disk resources in real-time.



Essential capabilities

- Fast identification in real-time of processes which are causing performance and response time issues
- Intelligent filtering for quick identification of the cause of any fault
- Display of all the processes from all the servers in the organization on a single screen
- Drill-down ability of the demand for resources to the level of the individual process!
- Investigation and analysis of the SQL execution plan, with highlights of plan warnings



The screenshot displays the AimBetter QAnalyzer interface. On the left, a list of queries is shown, with the query 'select [S0000].[SID] AS [SID] FROM [/B/SALES] I' highlighted with a red box. The main panel on the right shows the details for this query, including a table of execution statistics and the SQL statement.

Query Plans: (avg. per minute for selected time)

#	Execution Count		CPU	IO	Duration	Sample	
1	1 avg	1 min 1 max	6% avg	5% min 7% max	5 gb avg	2 gb min 8 gb max	1 min avg 1 min min 2 min max 3 Min.

Statement:

```

SELECT [S0000].[SID] AS [SID]
FROM [/BIO/PCSALES] [P0000]
JOIN [/BIO/S_SALES] [S0000] ON [P0000].[CSALES] = [S0000].[CSALES]
AND [P0000].[SAORG] = [S0000].[SAORG]
AND [P0000].[D_CHAN] = [S0000].[D_CHAN]
AND [P0000].[DIV] = [S0000].[DIV]
WHERE [P0000].[OBVERS] = 'A'
AND [P0000].[D_CHAN] IN (
    'N'
    ,N'10'
    ,N'15'
    ,N'20'
    ,N'40'
    ,N'70'
)
AND [P0000].[SAORG] IN (
    'N'
    ,N'1000'
    ,N'8000'
)
AND [S0000].[SID] IN (
    SELECT [S].[SID] AS [SID]
    FROM [/BIC/IP_BI00] [O]
    JOIN [/BIO/S_SALES] [S] ON [O].[BIC/SAL] = [S].[C_SALES]
    AND [O].[SALESORG] = [S].[SADRG]
    AND [O].[DISTR_CHAN] = [S].[D_CHAN]
    AND [O].[DIV] = [S].[DIV]
)
OPTION (MAXDOP 6)
/* R3:CL_SQL_STATEMENT=====CP:500 T:./BIO/P_SALES H:400 */
    
```

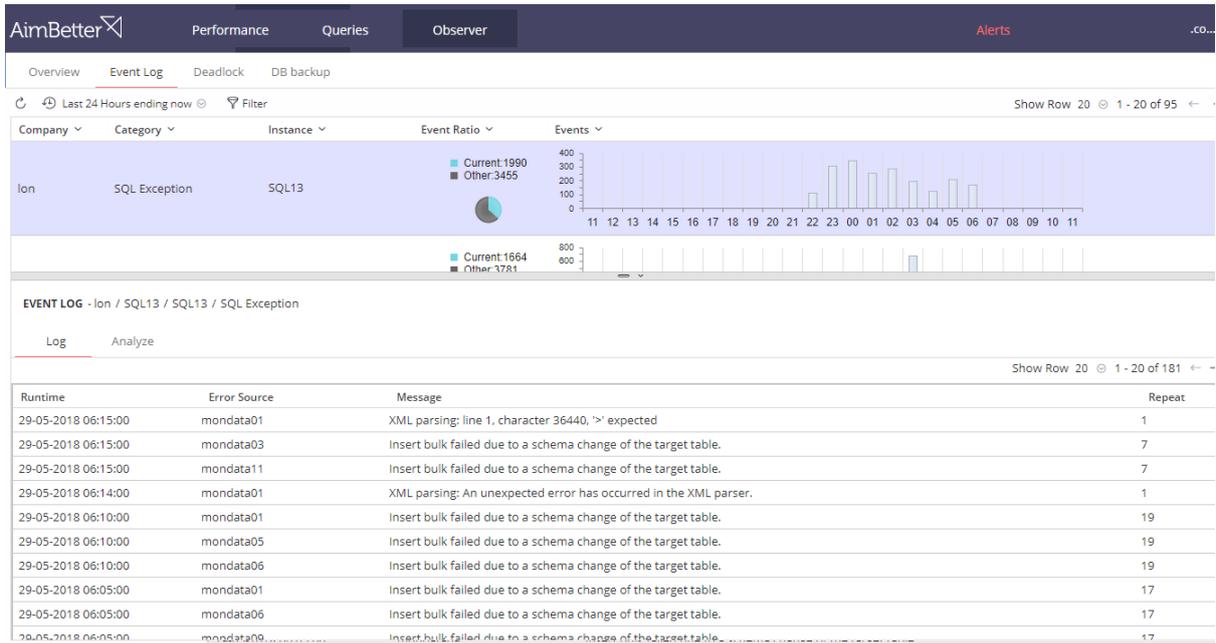
7. Observer

Observer analyses, catalogues, consolidates and displays critical events on the servers of the DB and the application in the organization in a simple and easy way which enables the identification of an abnormal state in the system and the correlation between faults.

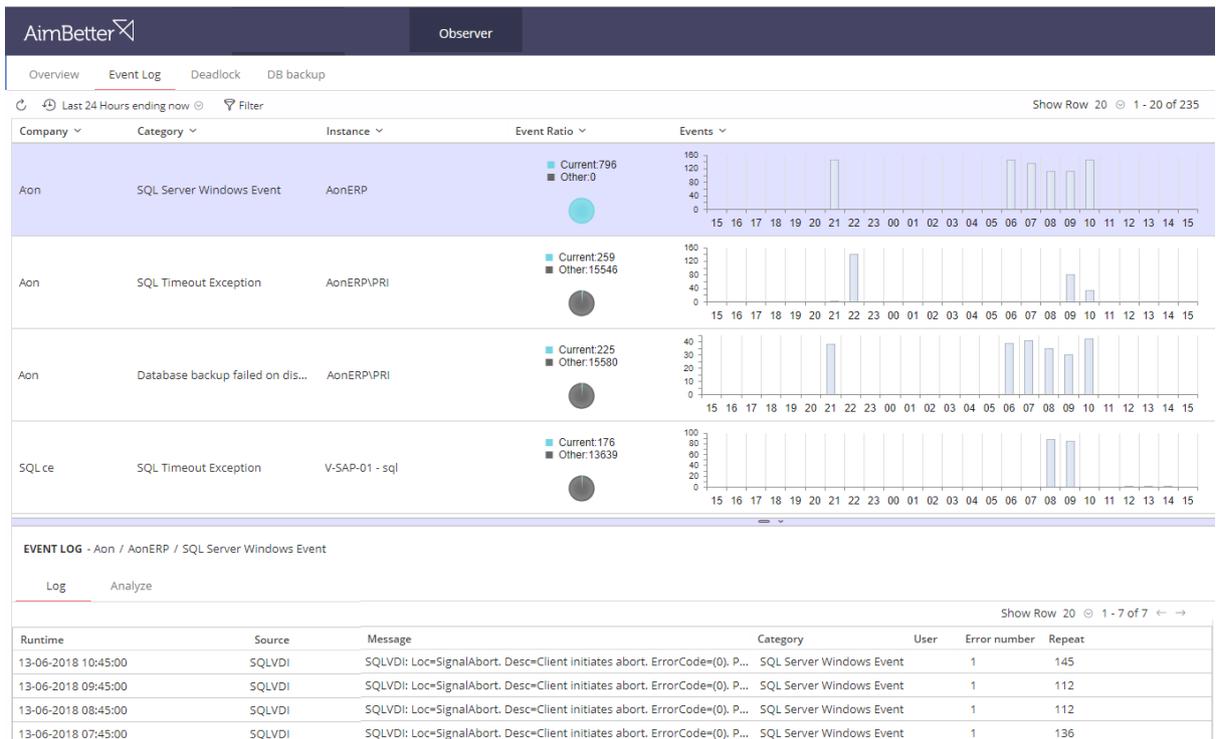
AimBetter 		Observer	
Overview Event Log Deadlock DB backup			
Last 24 hours ending now			
0 significant		16 suspected	
0 minor		16 server	
0 database		16 rows	
Change Date	Server	Description	Value
13 June 2018 14: 21	Diplomat QLP	Service "QServiceConnector" state Changed suspected changed server	Current - Running Previous - Stopped
13 June 2018 14: 21	Diplomat QLP	Service "QDistributionService" state Changed suspected changed server	Current - Running Previous - Stopped
13 June 2018 14: 21	Diplomat QLP	Service "QManagementService" state Changed suspected changed server	Current - Running Previous - Stopped
13 June 2018 14: 21	Diplomat QLP	Service "QServer" state Changed suspected changed server	Current - Running Previous - Stopped
13 June 2018 14: 21	Diplomat QLP	Service "QWebserver" state Changed suspected changed server	Current - Running Previous - Stopped
13 June 2018 14: 19	Diplomat QLP	Database "PlacingBot" creation date Changed suspected changed database	Current - Stopped Previous - Stop Pending
13 June 2018 14: 19	Diplomat QLP	Software "Google Chrome" Installation date Changed suspected changed server	Current - Stopped Previous - Running
13 June 2018 14: 18	Diplomat QLP	Service "Background Runtime Service" state Changed suspected changed server	Current - Stopped Previous - Running
13 June 2018 14: 18	Diplomat QLP	Software "Google Chrome" Installation date Changed suspected changed server	Current - Stopped Previous - Running

Essential capabilities

- proactive 24-hour look for the identification of developing faults.
- fast identification of login errors, duplicate keys, deadlock, running errors, backup problems in the DB server etc., including information about who is causing the problem (user, computer, application, etc.)
- analysis of the event log of the operating system for fast identification of events.
- performance of analysis for all the events in the servers over different periods on a daily, weekly and monthly level.
- statistical alerts on deviations from the metric's threshold level – trend identification and prevention of faults before they can impact performance!
- ability to investigate historical data. (History is available as defined in the chosen plan and on designated servers.)



The Observer can display all entries in the event log relating to queries, and present a graphic timeline of these activities.



8. Appendix

Performance metrics

Metric	Description of metric	Importance
Hosts		
CPU Usage	The level in percentage of processor usage	A high percentage indicates that a program or process needs a large amount of processor resources, a situation which could lead to slow response times in the system.
Total memory	The amount of physical memory present in the system in GB	
Memory free	The amount of physical memory free in the system in GB	A low quantity of free memory indicates that processes or programs are drawing on more memory. This situation can give cause slow response times. You should check which elements are using most of memory.
Disk Usage	Usage of the(disk) storage space in GB.	A usage as high as 95% of the storage space can lead to a loss of information and the integrity of the programs and processes in the system.
Disk Busy	The level in percentage of the traffic (reading and writing) of the (disk) storage	A high usage indicates that programs or processes are performing a large amount of reading and writing, a situation which can cause slow response times in the system.
Last Restart	The time of the last restart of the system	
Ping Lost Packets (012)	The quantity of unsuccessful communication integrity checks out of 12 attempts	A large number of failures indicates problems with communication in the network where the system is located.
Network Jitter	Fluctuations in the time of all 12 communication integrity checks.	A changing response time indicates communication problems in the network, an irregular rate of data transfer.
Network Latency	The response	A high response time delays in the transfer of information in the network.
OS	The name of the operating system	
SP	The update version of the operating system	

CPU Cores	The number of cores of the processor in the system	
CPU Queue Length	The number of processes waiting for the processor	Multiple waiting processes can indicate slow response times in the system.
Mem Page Read	The reading time of information from the storage to the physical memory	A high reading time implies that the size of the present memory is insufficient for the system, and can cause slow response times in the functioning of the system.
Paging Used	The amount of usage of the page file which is found in the (disk) storage of the computer which serves to aid the physical memory in the system if there is need for additional memory	When the usage is high, an enlargement of the physical memory should be considered.
Total Disk IO	The amount of traffic (reading and writing) from the (disk) storage of the system per second	An amount which is larger than normal indicates that there is a process or program which is causing high I/O activity.
Network		
Card Name	The name of the sampled network card	
Bandwidth	The bandwidth which the network card supports, the amount of information which can be transferred through the card in GB.	There are situations where the bandwidth is not determined in the optimal manner, for example the card supports 1GB but is set at 100MB.
Network utilization	The percentage utilization of the network card	A percentage higher than 30% indicates extensive transfer of data. This situation will causedelays in the transfer of data between systems and different programs in the network.
Receive KByte(sec)	The amount of information received by the server through the network card in kilobytes per second	A high measurement indicates that the server is receiving large amounts of data. When the system is slow you should check whether this metric is correspondingly high.
Send KByte(sec)	The amount of information sent from the server through the network card in kilobytes per second	A high measurement indicates that the server is sending large amounts of data. When the system is slow you should check whether this metric is correspondingly high.
Disk		
Disk Usage(GB)	The usage of the (disk) storage in GB.	A usage as high as 95% of the storage space can lead to a loss of information and the integrity of the data and processes in the system.

Free Space	The free (disk) storage space in GB	Low free storage space can lead to loss of information and the integrity of the data and processes in the system.
Busy Time	The level in percentage of the usage reads and writes) of the (disk) storage	A high usage indicates that programs or processes are performing a large number of reads and writes, a situation which can cause slow response times in the system.
Write /R (ms)	The amount of time reading takes the (disk) storage in milliseconds	A writing time higher than 1 millisecond indicates a load on the (disk) storage or a lack of integrity.
Read /R (ms)	The amount of time writing takes the (disk) storage in milliseconds	A reading time higher than 1 millisecond indicates a load on the (disk) storage or a lack of integrity.
IO(sec)	The number of reads and writes to and from the (disk) storage per second	In a situation where the number of reads and writes is high, system responses can be slow
IO Write(sec)	The number of writes to the (disk) storage per second	In a situation where the number of writes is high, system responses can be slow
IO Read(sec)	The number of reads from the (disk) storage per second	In a situation where the number of reads is high, system responses can be slow
Paging		
Page files	The page file path which forms the virtual memory in the (disk) storage on the computer	
Used	The number of usage of the page file which is found in the (disk) storage of the computer, which serves to aid the physical memory in the system if there is need for additional memory	When the usage is high, an enlargement of the physical memory should be considered
Max	If the page file (virtual memory) has been manually determined, this metric indicates the maximum storage space assigned to the page file (virtual memory).	
Init	If the page file (virtual memory) has been manually determined, this metric indicates the initial storage space assigned to the page file (virtual memory).	
Manage type	How the page file (virtual memory) has been defined, manually or automatically.	
Allocated	The physical size currently assigned to the page file (virtual memory) within the (disk) storage space	

Services		
Name	The name of the service	
Display Name	The display name of the service	
State	The status of the service (running, starting, stopping, stopped, etc.)	
Mode	The mode of operation of the service, manual, automatic or cancelled.	
Account	The level of authorization with which the service is working	
Path	The location of the executable file of the service	
Running	The running status of the service, 0 down, 1 up.	
Process		
User Name	The name of the user running the process	
Process Name	The name of the running process	
CPU	The percentage level of the process's usage of the processor	A high percentage indicates that this process needs a large number of processor resources, a situation which can lead to slow response times in the whole system.
Memory	The number of physical memory utilized by the process in MB	A large number of memory needed indicates that this process is utilizing a large amount of memory which can lead to slow response times of processes and other programs in the system.
Page Files	The amount of page file (virtual memory) being used by the process in MB	A large amount used by the process can be evidence of a problem with the physical memory.
Virtual Memory	The process's amount of physical memory and page file (virtual memory)	
Reads	The process's number of reads from the physical memory	
Writes	The process's number of writes to the physical memory	

Process ID	A number which identifies the process in the system	
Command Line	The running command of the executable file which the process is running	Includes parameters
Last initialization	The time at which the process was initiated	
Path	The path of the executable file	
MSSQL		
Version	The version of the SQL installed on the server	
Instance	The name of the installation of the SQL server	
Test connection	A time check of establish a connection to the SQL server in milliseconds	When the time to establish a connection is large, this situation indicates communication problems in the network or a load on the SQL server.
Last Restart	The last restart which was done for the SQL server	
Collation	The language and manner of string comparison defined by the SQL server	
Edition	The installed edition of the version of the SQL	There are a number of editions, and each edition has two runtimes – 32 and 64 bit, e.g.: Express, Developer, Enterprise, etc.
SP	The update version of the SQL	
Page life expectancy	The duration of time which the SQL keeps the retrieved information which is found in the physical memory of the service, measured in seconds.	A short time, such as 300 seconds, for the saving of the information in the memory indicates a situation in which the SQL needs more physical memory because it is exchanging the information which arrives from the physical memory at a high frequency, something which causes slow response times in the reception of data from the SQL.
User Connections	The number of users in the SQL	A large number can indicate a load on the system, a fault or security error
Batch requests	The number of update, retrieval, or deletion or saving operations in the SQL per second.	This metric enables you to track over time in order to point to abnormality in the number of operations in the SQL server.

Buffer cache hit ratio	The percentage usage of the information which is found in the physical memory of the SQL server	When the percentage usage is below 90%, it creates a situation of multiple reads and writes to the (disk) storage. You should investigate whether there is a high consumption of the physical memory by different programs or processes, or whether it is necessary to add additional physical memory to the SQL server.
Page reads	The number of page reads (each page is 8KB) from the (disk) storage per second.	A large number of reads indicates that you should examine the integrity and the indexing and logic of the system queries for information in the SQL server.
Page writes	The number of page writes (each page is 8KB) from the (disk) storage per second.	A large number of writes indicates that you should examine the integrity and the indexing and logic of the system queries for information in the SQL server.
Compilation	The number of times that the SQL compiles the running programs of the queries per second	A large number of running program compilation together with a low number of the batch requests metric indicates a large usage of direct queries, sp_executesql and no procedures with determined variables.
Recompilation	The number of times the SQL recompiles the running programs of the queries per second	A large s of running program recompilation together with a low number of the batch requests metric indicates that the amount of information which the request retrieves has grown, a statistical update has been performed, or the indexing has been recompiled. First you should investigate the amount of information, and afterwards investigate whether the other operations have been performed.
Page Lookups	The number of times the SQL seeks pages (the size of each page is 8KB) from the physical memory.	$(\text{Page lookups/sec}) / (\text{Batch requests/sec greater than } 100) > 100$. There are queries which are not running optimally.
Latches Times	The number of latches of tables per second for the purpose of updating or deletion.	A high number of latches causes slow response times in the reception of data from the latched tables. You should investigate a change in the method of update or deletion.
Page Splits	The number of pages splitting for the purpose of allocation in the event that the index does not have space at the frequency of one second	An number higher than 20 per second necessitates a check of the specifications of the index.
Checkpoint Pages	The number of the updates of pages (the size of a page is 8KB) of information from the physical memory to the (disk) storage per second	When there is a large number of updates per second, you should investigate the addition of physical memory to the system or the reduction of the recovery interval in the specifications of the SQL.
DB IO	The number of reads and writes of the entire database	

Target Memory	The amount of memory which the SQL requests to assign to it for normal functioning.	
Memory	The amount of memory which the SQL is utilizing	If the SQL is not using the maximum specified amount of memory, you should consider lowering this amount.
Memory Details	A description of the division of the physical memory usage of the SQL for the database, internal needs and free memory in MB	
SQL Memory	The amount of physical memory which the SQL is utilizing in MB	
Free Memory	The amount of physical memory which the SQL is not utilizing in MB	When the metric is high there is the possibility of taking out the physical memory assigned to the server.
Internal Memory	The amount of physical memory which the SQL is utilizing for internal operations, not including operations for the database, in MB	A large amount indicates that a large usage of time objects (parameters, tables, indexes etc.). Improvement should be considered.
Memory (min)	The minimum amount of assigned physical memory which the SQL can use in MB	
Memory(max)	The maximum amount of assigned physical memory which the SQL can use in MB	
DB		
Status	The status of the database	<ul style="list-style-type: none"> • Online – the database is available • Offline – the database is not in use • Mirror Disconnect – the sync is disconnected. • Mirror Principal – the principal sync of all updating of the database. • Mirror – the database is synchronized. • Restoring – the database is currently being restored • Suspect – the database is defective
Instance	The name of the installation of the SQL server in which the database is found	
Database	The name of the database	
Recovery	The type of backup and restore specified for the database (Simple, full or bulk logged).	For more details search for “choosing the recovery model for a database” in Google.
Full Backup	The date of the last full backup which was performed on the database.	A full backup once per day is recommended

Log Backup	The date of the last backup of log changes which was performed on the database	A log backup once per hour is recommended
Collation	The language and the manner of string comparison specified for the database	
Compatibility	The version of the compiler at the level of the database	Incompatibility between the version of the server and the database requires investigation.
Diff Backup	The date of the last partial backup which was performed for the database	A partial backup once a day is recommended
Transactions	The number of transaction operations which began per second	A large number of transaction operations indicates
Log Flush	The time which it takes to save the log which is found in the physical memory to the (disk) storage	When the time it takes to save the log from the memory is long this is a situation in which operations of transaction, update and saving to the SQL take a long time
IO	The number of read and write operations from the (disk) storage at the sampled time.	A very large number of reads and writes can cause slow response times as a result of a load on the (disk) storage
Log size	The size assigned to the log files in MB of the database	
Log Use	The size of the log used in MB	
	The date of the creation of the database	
Data Files	The number of files the database consists of	
Data Read IO	The number of reads from the (disk) storage	
Data Write IO	The number of writes from the (disk) storage	

Alert metrics

Metric	Levels of recommended threshold			Description	
CPU usage	Above	50%	70%	90%	A higher percentage indicates that a program or process needs a large amount of processor resources, a situation which can cause slow response times in the system.
Memory Free	Below	0.3GB	0.2GB	0.1GB	A low amount of free memory indicates that processes or programs are drawing more memory. This situation can be evidence of slow response times in the system. You should investigate who is using a lot of memory.
Paging Used	Above	512MB	1024MB		When the usage is high, you should consider an enlargement of the physical memory.
Lost Packets Using Ping	Above or equal to	1	3	4	A large number of failures indicates communication problems in the network in which the system is found.
Network utilization	Above	30%	80%		A percentage higher than 30% indicates a large amount of data transfer. This situation will cause slow response times in the transfer of data between different systems and programs in the network.
Disk space	Below	1.5GB	1GB	0.5GB	Low free storage space can lead to a loss of information and the integrity of the programs and processes in the system. Running out of disk space can be catastrophic.
Disk busy time	Above	70%	90%		A high percentage indicates that programs or processes are performing many reads or writes, a situation which can cause slow response times in the system.
Process cpu	Above	50%	70%	90%	A high percentage indicates that this process needs a large amount of processor resources, a situation which can lead to slow response times in the entire system.
Process memory	Above	100MB	200MB	500MB	A large amount of needed memory

					indicates that this process is utilizing a large proportion of memory, which can lead to slow performance of other processes and programs in the system.
Process Running	Equal to	0			An alert concerning the stopping of the operations of a process in the system (either 0 or 1).
Service Running	Equal to	0			An alert concerning the stopping of service operations in the system (either 0 or 1).
SQL Connection Problem	Above	500MS	1000MS	2000MS	A long time to establish a connection indicates a situation where there are communication problems in the network or a load on the SQL server.
Page Life Expectancy	Above or equal to	500sec	300sec		A short saving time for the information in the memory indicates a situation in which the SQL needs more physical memory because it is exchanging the information arriving from the physical memory at a high frequency, which leads to slow response times in the reception of data from the SQL.
SQL Deadlock	Above or equal to	5	10	20	A large count of deadlock situations indicates that there are many processes which are not ending.
Buffer Cache Hit Ratio	Buffer Cache Hit Ratio	90%	85%		When the percentage usage is below 90% it creates a situation of multiple reads and writes from the (disk) storage. You should investigate whether there is a high consumption of the physical memory by different programs or processes, or whether it is necessary to add additional physical memory to the SQL server.
Log backup	Log backup last ran	60Min	180Min	1440Min	A log backup at a frequency of hourly lowers the risk of information loss down to within an hour when there is a fault. It also allows transaction log shrinkage to minimize disk space usage.
Full backup	Full backup last ran			1500Min	A daily full backup lowers the risk of information loss when there is a fault.

Differential I backup	Differential I backup			1500Min	The backup of information from the full to the present backup point at daily frequency
Log/Data percentage	Log/Data percentage	60%	80%		When the log measures above 60% of the database size there is a problem. You should check the integrity of the processes for this database, such as transactions (containing recursion), and backups.
SQL error	SQL error			5	A large number of errors for queries necessitates an investigation as this can be evidence of abnormality in the system.
Login failed for user	Above or equal to	30	60	100	A large number of failed logins can be evidence of a security issue.
SQL job failed	Above or equal to			0	The dropping of a SQL process can cause disruption of the system integrity.
SQL job cancelled	Above or equal to	0			The cancelling of a SQL process can cause a disruption of the system integrity.
Memory	The amount of memory which this database is taking up in the physical memory in MB				
Size	The size which the database is taking in the (disk) storage divided into log and information				When the log is taking up more than 60% of the size of the database there is a problem. You should investigate the integrity of processes for this database, such as transactions (containing recursion), and backups.
Data Growth	The rate of information growth in the data base in the (disk) storage in MB				When a lack of space in the (disk) storage is created, you should investigate whether the database has somehow grown substantially
Log Growth	The rate of growth of the log in the database in the (disk) storage in MB				When a lack of space in the (disk) storage is created, you should investigate whether the database has somehow grown substantially.