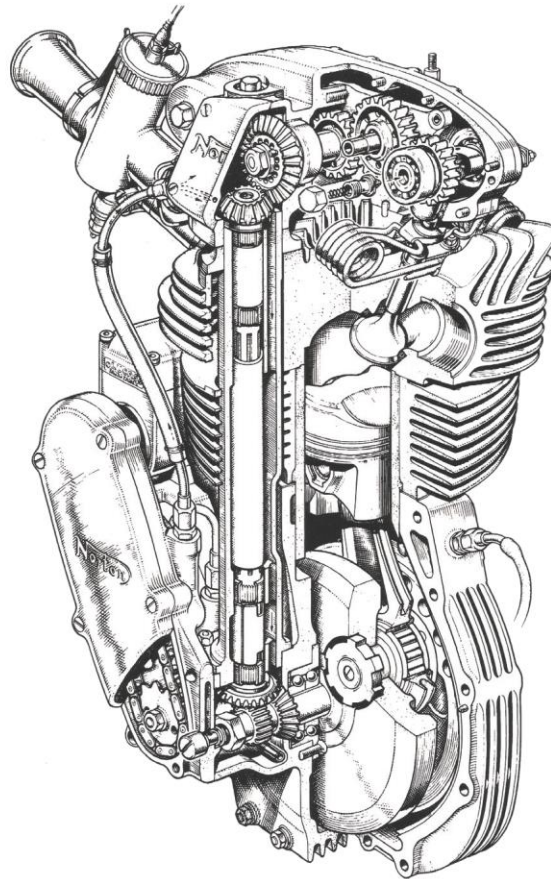


# Argent for SQL Server



# Table Of Contents

Introduction.....	3
Log-On Screen .....	4
Home Screen .....	5
Configure SQL Server In CMDB-X .....	6
Tool Sets For SQL Server .....	9
SQL Query Rules .....	10
SQL Logon Rules .....	13
SQL Job Rules .....	14
Concurrent User Rules .....	15
SQL Lock Rules.....	16
SQL Deadlock Rules .....	17
Database Backup Rules .....	18
Database Integrity Check Rules .....	19
SQL Processor Usage Rules .....	20
SQL IO Usage Rules .....	21
Database Size Rules .....	22
Transaction Log Size Rules .....	23
Query Blocked Process Rules .....	24
Query Runaway Process Rules .....	25
In Process Runaway Query Rules .....	27
Blocked Query Rules.....	28
Slow Running Trigger Rules .....	29
Slow Running Procedure Rules .....	30
Average Fragmentation In Percent Rules .....	31
Offline Database Rules.....	32
Security Rules .....	33
Long-Running Open Transaction Rules.....	34

## Introduction

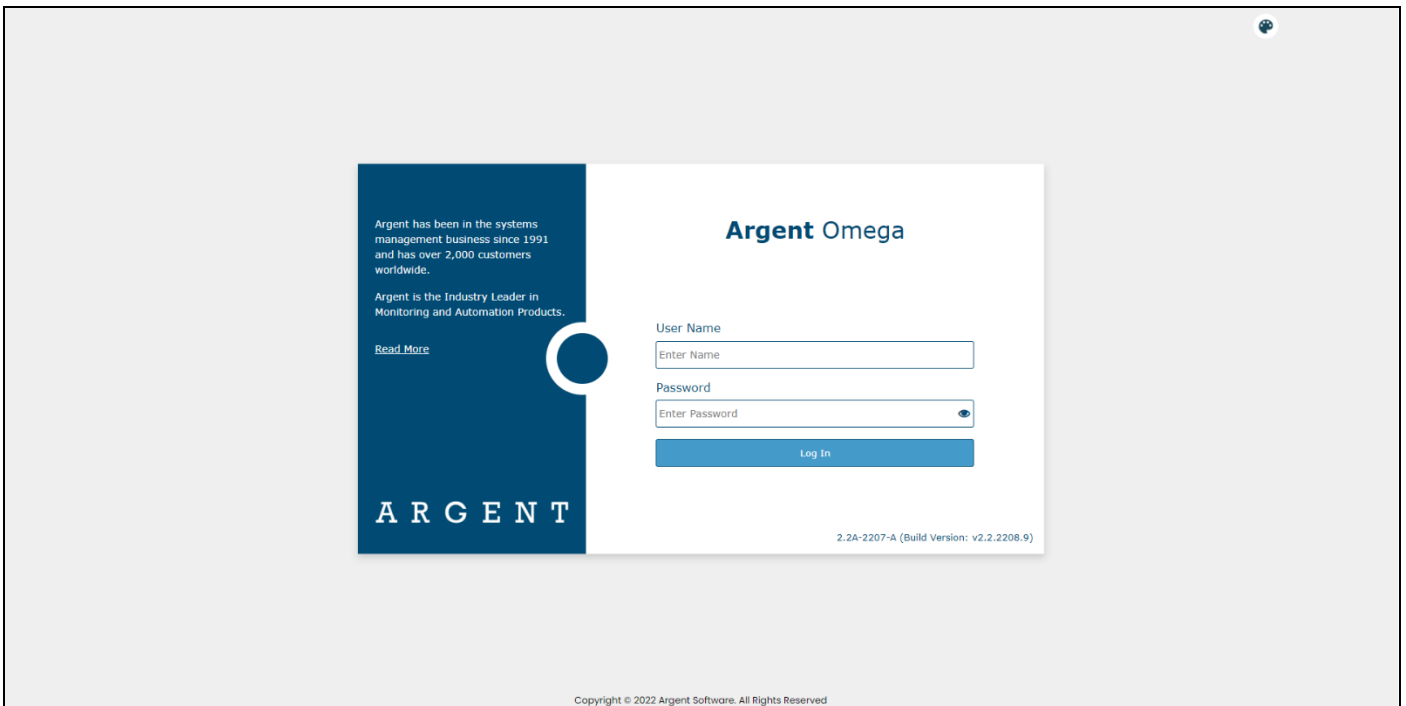
Microsoft SQL Server machines are widely-used enterprise database systems. When there are system-wide performance problems, SQL Server machines are often identified as the culprit. Therefore, it is important to constantly monitor SQL Server environments to ensure optimum performance on the entire system.

Argent for SQL Server includes Tool Sets for flexible and real time SQL Server monitoring; supported versions are: SQL 2008, 2008 R2, 2012, 2014, 2016, 2017, 2019 and 2022.

Argent for SQL Server offers **out-of-the-box** discovery, availability, health, and performance tracking. To maintain the health and availability of SQL Server machines, Argent for SQL Server constantly monitors the parameters listed below:

- Memory and CPU utilization
- Locks and Deadlocks
- Database size usage
- Concurrent users
- Indexes
- Buffer and cache
- SQL queries
- Replication details
- Jobs and sessions details

## Log-On Screen



Argent Omega validates the authenticity of the user through the log-on screen.

Three types of user accounts can logon to Argent Omega:

- Windows User Accounts
- Demo Accounts
- Internal Accounts

Argent Omega uses Windows authentication to login Windows user accounts into Argent Omega. If the Argent server is in an Active Directory Domain environment, then the user will be authenticated by Active Directory. If the server is Standalone, or in a Workgroup, local Windows user authentication is used. For Windows user accounts, the recommended approach is to create a separate user group for Windows users and assign the required rights.

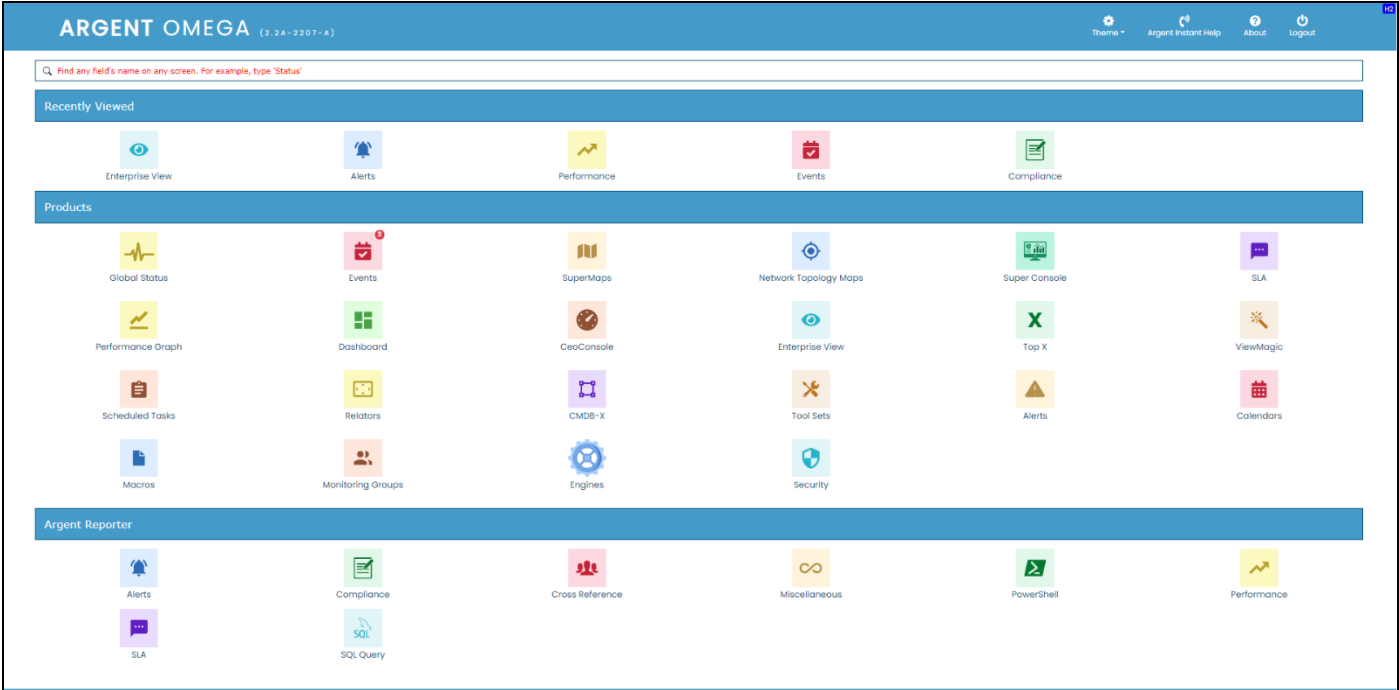
Demo Accounts can be created in the Argent Omega Security section and are used for demonstration purposes. Demo accounts are read-only accounts and it uses Argent private authentication to login into Argent Omega. Usually Demo Accounts has short validity time, and the access is limited to specific IP addresses only

Internal Accounts also can be created in Argent Omega Security section and will behave like a normal Windows account. Use Argent private authentication for login.

Argent Omega user name is case **insensitive** and Password is **case sensitive**.

# Home Screen

After logging in, Argent Omega will redirect to Home screen



# Configure SQL Server In CMDB-X

Before running Argent Omega SQL Server Rules, the SQL Server instances need to be configured in the CMDB-X properties section of Licensed Nodes. Argent for SQL Server licenses can be applied only to Windows and Linux servers. To configure SQL Server instances in Windows or Linux server, set the value of **SQL Server Installed** CMDB-X property to **Yes** as shown below:

The screenshot shows the ARGENT OMEGA (2.2 A - 2207-A) interface. The main table lists various network groups and machines. The 'SQL Server Installed' property is highlighted with a red box, showing a value of 'Yes'.

Network Group Or Machine	Type	Alias	Licensed	Suspend	Location	Contact
ATS-2020-111	Windows Server				THIRUVANANTHAPURAM	
ATS-2020-3	Windows Server		Yes		THIRUVANANTHAPURAM	
ATS-99	Windows Server				THIRUVANANTHAPURAM	
ATS-ACCOUNTS	Windows Server				THIRUVANANTHAPURAM	
ATS-DOMAIN	Windows Server				THIRUVANANTHAPURAM	
D3PC-14	Windows Server				THIRUVANANTHAPURAM	
D3PC-21	Windows Server				THIRUVANANTHAPURAM	
DASHBOARD	Windows Server				THIRUVANANTHAPURAM	
DB-BUGTRACKER	Windows Server				THIRUVANANTHAPURAM	
DC-001	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-AD-HR	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-EDB7VE8	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-ER9R3GC	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-K7J0708	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-LKJMO2	Windows Server				THIRUVANANTHAPURAM	
DND-2019-SQLEXP	Windows Server				THIRUVANANTHAPURAM	
DND-MANTIS	Windows Server				THIRUVANANTHAPURAM	
DND-MFC-SQL	Windows Server		Yes		THIRUVANANTHAPURAM	
DND-SUPPORT	Windows Server				THIRUVANANTHAPURAM	
DND-WEB-SQL-HYS	Windows Server				THIRUVANANTHAPURAM	
EX-2013	Windows Server				THIRUVANANTHAPURAM	
EX2016TEST	Windows Server				THIRUVANANTHAPURAM	
LocalSecurity	Windows Server				THIRUVANANTHAPURAM	

The Properties section on the right shows the following values:

Group Or Key	Value
Name	DND-MFC-SQL
Licensed Products	Argent Omega for SQL Server
Alias	
Windows Server	
Hosting Environment	None
SNMP Managed	No
SQL Server Installed	Yes
TCP Parameters	
System Info Caching Minutes	30
Monitoring Level	Normal
Tier	Not Specified
Tag	
Location	THIRUVANANTHAPURAM
Contact	
Owner Accounts	
Default Settings	
Time Zone Settings	Same as Location
Critical	No
Ignored	No
Logical Dependency	

To configure the SQL Server instance details, expand the SQL Server installed section by clicking ► and provide values for following CMDB-X properties:


- Instance Name
- Port (Default 1433)
- Default Database
- Logon
- Password
- Use Trusted Connection

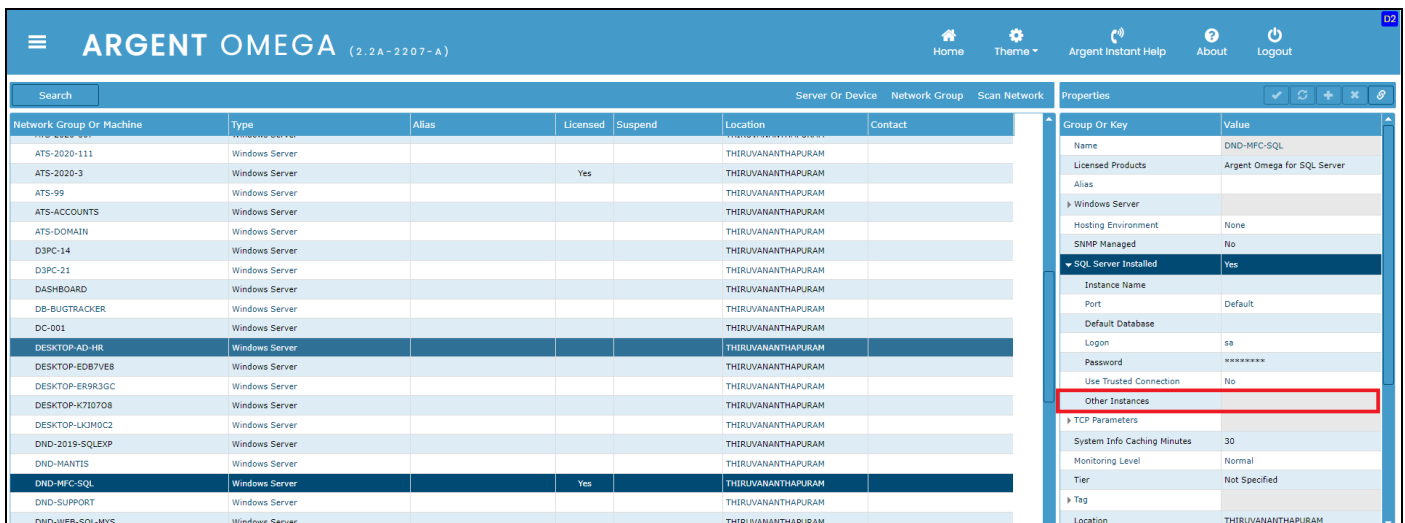
The screenshot shows the ARGENT OMEGA (2.2 A - 2207-A) interface. The main table lists various network groups and machines. The 'SQL Server Installed' property is expanded, showing details like Instance Name, Port, Default Database, Logon, Password, and Use Trusted Connection.

Network Group Or Machine	Type	Alias	Licensed	Suspend	Location	Contact
ATS-2020-111	Windows Server				THIRUVANANTHAPURAM	
ATS-2020-3	Windows Server		Yes		THIRUVANANTHAPURAM	
ATS-99	Windows Server				THIRUVANANTHAPURAM	
ATS-ACCOUNTS	Windows Server				THIRUVANANTHAPURAM	
ATS-DOMAIN	Windows Server				THIRUVANANTHAPURAM	
D3PC-14	Windows Server				THIRUVANANTHAPURAM	
D3PC-21	Windows Server				THIRUVANANTHAPURAM	
DASHBOARD	Windows Server				THIRUVANANTHAPURAM	
DB-BUGTRACKER	Windows Server				THIRUVANANTHAPURAM	
DC-001	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-AD-HR	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-EDB7VE8	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-ER9R3GC	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-K7J0708	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-LKJMO2	Windows Server				THIRUVANANTHAPURAM	
DND-2019-SQLEXP	Windows Server				THIRUVANANTHAPURAM	
DND-MANTIS	Windows Server				THIRUVANANTHAPURAM	
DND-MFC-SQL	Windows Server		Yes		THIRUVANANTHAPURAM	
DND-SUPPORT	Windows Server				THIRUVANANTHAPURAM	
DND-WEB-SQL-HYS	Windows Server				THIRUVANANTHAPURAM	
EX-2013	Windows Server				THIRUVANANTHAPURAM	

The Properties section on the right shows the following values:

Group Or Key	Value
Name	DND-MFC-SQL
Licensed Products	Argent Omega for SQL Server
Alias	
Windows Server	
Hosting Environment	None
SNMP Managed	No
SQL Server Installed	Yes
Instance Name	
Port	Default
Default Database	
Logon	sa
Password	*****
Use Trusted Connection	No
Other Instances	
TCP Parameters	
System Info Caching Minutes	30
Monitoring Level	Normal
Tier	Not Specified
Tag	
Location	THIRUVANANTHAPURAM

There is an option to configure multiple SQL Server instances in the same server. To do this, select **Other Instances** CMDB-X property and click  button:



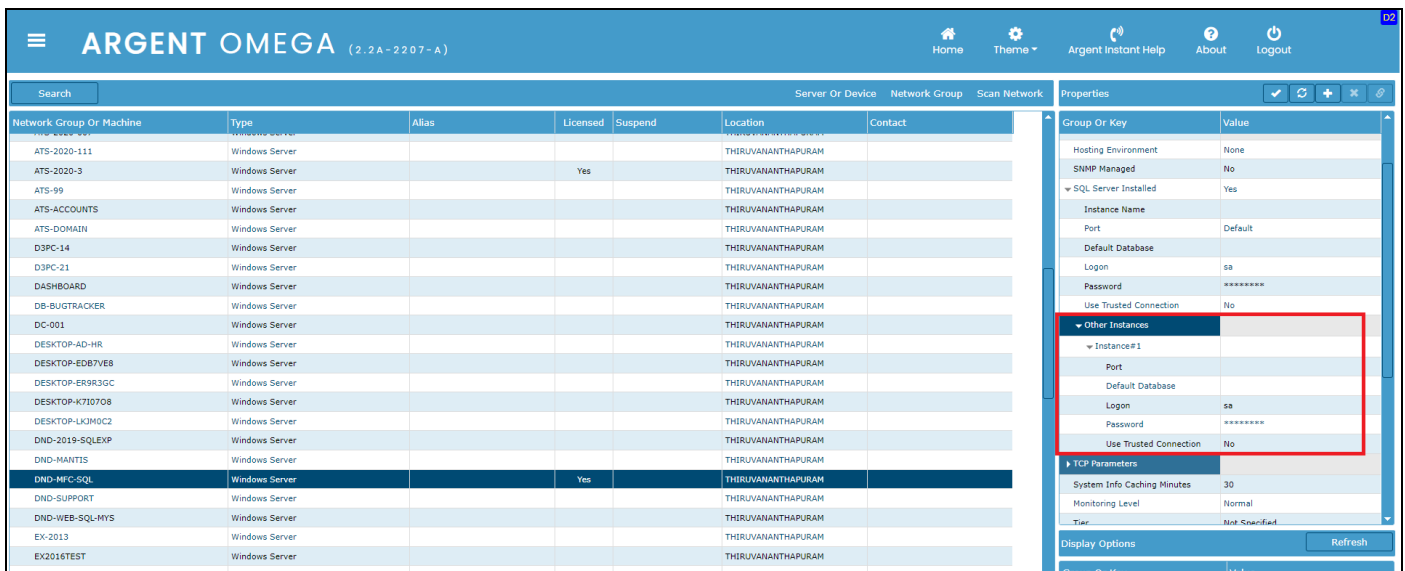
The screenshot shows the ARGENT OMEGA (2.2 A - 2207 - A) interface. The main table lists various network groups and machines. The Properties panel on the right shows the configuration for the selected machine. The 'Other Instances' property is highlighted in the Properties panel.

Network Group Or Machine	Type	Alias	Licensed	Suspend	Location	Contact
ATS-2020-111	Windows Server				THIRUVANANTHAPURAM	
ATS-2020-3	Windows Server		Yes		THIRUVANANTHAPURAM	
ATS-99	Windows Server				THIRUVANANTHAPURAM	
ATS-ACCOUNTS	Windows Server				THIRUVANANTHAPURAM	
ATS-DOMAIN	Windows Server				THIRUVANANTHAPURAM	
D3PC-14	Windows Server				THIRUVANANTHAPURAM	
D3PC-21	Windows Server				THIRUVANANTHAPURAM	
DASHBOARD	Windows Server				THIRUVANANTHAPURAM	
DB-BUGTRACKER	Windows Server				THIRUVANANTHAPURAM	
DC-001	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-AD-HR	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-EDB7VE8	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-ER9R3GC	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-K7I0708	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-LQIMOC2	Windows Server				THIRUVANANTHAPURAM	
DND-2019-SQLEXP	Windows Server				THIRUVANANTHAPURAM	
DND-MANTIS	Windows Server				THIRUVANANTHAPURAM	
DND-MFC-SQL	Windows Server		Yes		THIRUVANANTHAPURAM	
DND-SUPPORT	Windows Server				THIRUVANANTHAPURAM	
DND-WEB-SQL-HYS	Windows Server				THIRUVANANTHAPURAM	

Properties panel details:

- Group Or Key: DND-MFC-SQL
- Name: DND-MFC-SQL
- Licensed Products: Argent Omega for SQL Server
- Alias:
- Windows Server:
- Hosting Environment: None
- SNMP Managed: No
- SQL Server Installed: Yes
- Instance Name:
- Port: Default
- Default Database:
- Logon: sa
- Password: \*\*\*\*\*
- Use Trusted Connection: No
- Other Instances:
- TCP Parameters:
- System Info Caching Minutes: 30
- Monitoring Level: Normal
- Tier: Not Specified
- Tag:
- Location: THIRUVANANTHAPURAM

CMDB-X will be expanded to accept the details of another instance as shown below:




The screenshot shows the ARGENT OMEGA (2.2 A - 2207 - A) interface. The main table lists various network groups and machines. The Properties panel on the right shows the configuration for the selected machine. The 'Other Instances' property is expanded, showing details for Instance#1.

Network Group Or Machine	Type	Alias	Licensed	Suspend	Location	Contact
ATS-2020-111	Windows Server				THIRUVANANTHAPURAM	
ATS-2020-3	Windows Server		Yes		THIRUVANANTHAPURAM	
ATS-99	Windows Server				THIRUVANANTHAPURAM	
ATS-ACCOUNTS	Windows Server				THIRUVANANTHAPURAM	
ATS-DOMAIN	Windows Server				THIRUVANANTHAPURAM	
D3PC-14	Windows Server				THIRUVANANTHAPURAM	
D3PC-21	Windows Server				THIRUVANANTHAPURAM	
DASHBOARD	Windows Server				THIRUVANANTHAPURAM	
DB-BUGTRACKER	Windows Server				THIRUVANANTHAPURAM	
DC-001	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-AD-HR	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-EDB7VE8	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-ER9R3GC	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-K7I0708	Windows Server				THIRUVANANTHAPURAM	
DESKTOP-LQIMOC2	Windows Server				THIRUVANANTHAPURAM	
DND-2019-SQLEXP	Windows Server				THIRUVANANTHAPURAM	
DND-MANTIS	Windows Server				THIRUVANANTHAPURAM	
DND-MFC-SQL	Windows Server		Yes		THIRUVANANTHAPURAM	
DND-SUPPORT	Windows Server				THIRUVANANTHAPURAM	
DND-WEB-SQL-HYS	Windows Server				THIRUVANANTHAPURAM	
EX-2013	Windows Server				THIRUVANANTHAPURAM	
EX2016TEST	Windows Server				THIRUVANANTHAPURAM	

Properties panel details:

- Group Or Key: DND-MFC-SQL
- Hosting Environment: None
- SNMP Managed: No
- SQL Server Installed: Yes
- Instance Name:
- Port: Default
- Default Database:
- Logon: sa
- Password: \*\*\*\*\*
- Use Trusted Connection: No
- Other Instances:
  - Instance#1:
    - Port:
    - Default Database:
    - Logon: sa
    - Password: \*\*\*\*\*
    - Use Trusted Connection: No
- TCP Parameters:
- System Info Caching Minutes: 30
- Monitoring Level: Normal
- Tier: Not Specified
- Tag:
- Location: THIRUVANANTHAPURAM

Save the changes and select **Test Connectivity** from right click menu or click  from properties to do the connectivity test to the specified SQL Server instances:





## Tool Sets For SQL Server

Argent for SQL Server includes Instant Best Practices for monitoring critical performance metrics, configuration settings, structural issues, and resource usage of Microsoft SQL Server hosts.

Argent for SQL Server includes the following sets of Rules:

- Connectivity Rules
- SQL Job Rules
- Database Backup Rules
- Database Integrity Check Rules
- SQL Concurrent Users Rules
- SQL Lock Rules
- SQL DB Space Rules
- SQL Log Space Rules
- SQL Processor Usage Rules
- SQL IO Usage Rules
- SQL Query Rules
- System Service Rules
- Slow Running Trigger Rules
- Slow Running Procedure Rules
- Offline Database Rules
- Long Running Open Transactions Rules

The following section is a detailed description of Argent Omega Rules to monitor the performance of SQL Server instances:

# SQL Query Rules

These Rules execute a single customizable SQL statement, stored procedure, or a Transact-SQL block on a specified SQL Server instance or database. **In other words, the Argent Query Rules are essentially a product-within-a-product; you can use these Rules to do whatever you want, to monitor whatever you want.**

**ARGENT OMEGA** (2.2 A - 2207-A)

Home Theme Argent Instant Help About Logout

**Tool Sets**

- Argent Omega Baseline
- Argent Compliance Automator
- Argent Omega Web Defender
- Argent Omega for Microsoft 365
- Argent Omega for SNMP
- Argent Omega for SQL Server
  - SQL Query Rules**
    - QUERY CHECK**
    - SQL Logon Rules
    - SQL Job Rules
    - Concurrent User Rules
    - SQL Lock Rules
    - SQL Deadlock Rules
    - Database Backup Rules
    - Database Integrity Check Rules
    - SQL Processor Usage Rules
    - SQL IO Usage Rules
    - Database Size Rules
    - Transaction Log Size Rules
    - Query Blocked Process Rules
    - Query Runaway Process Rules
    - Runaway Query Rules
    - In Process Runaway Query Rules
    - Blocked Query Rules
    - Slow Running Trigger Rules
    - Slow Running Procedure Rules
    - Average Fragmentation In Percent Rules
    - Offline Database Rules
    - Security Rules

**Run Options**

☒ SQL Statement ☐ Stored Procedure ☐ Transact-SQL

SELECT cpu.physical\_io, spid, getdate() as tme  
FROM sysprocesses  
WHERE spid <> @spid

**Database Name:** master ("" and '?' Are Allowed) ☒ Save Performance Data Of Numeric Column 1

**Filter Instances:** \* ☐ Exclude Specified Instances **Object Name:** Processor

**SQL Time Out:** 30 Seconds (Value 0 for Default) **Counter Name:** Accumulative CPU Usage

**Check Option:** Check All Rows **Instance Name:** Column 3

**Comparison Column:** 0 (When Firing Events Separately) ☐ Only Save The First Row Of Query Results

**Rule Is Not Broken If The Following Conditions Are True**

Numeric(\$1) Greater Than 60000

☒ Rule Is Broken If Failed To Connect To SQL Server ☐ Send Query Result As Email Attachment In CSV Format

☒ Rule Is Broken If Any Error Occurred ☐ When Testing Rule Send Attachment To

☒ Include The Complete Query Result **Ignore Attachment If Size Is Greater Than** 0 MB

☐ Show Actual Query In Alerts **Attachment File Name:**

☒ Show Query Result In Tabular Format

☐ Save Performance Data To The Argent Forecaster Using Data Store: (default)

Tag 1:

The execution of configured SQL is expected to return a record set and is checked according to configured

## Check Option:

- Rule is not broken if any row is returned.
- Rule is broken if any row is returned.
- Rule is not broken if any row satisfies the condition - further described below.
- Check all rows (i.e. all rows must satisfy the condition to pass the check) - further described below.

With the last two Rules, additional configuration is necessary. This is done in the area marked below:

**ARGENT OMEGA** (2.2 A - 2207 - A)

Home Theme Argent Instant Help About Logout

**Tool Sets**

- Argent Omega Baseline
- Argent Compliance Automator
- Argent Omega Web Defender
- Argent Omega for Microsoft 365
- Argent Omega for SNMP
- Argent Omega for SQL Server
  - SQL Query Rules**
    - QUERY\_CHECK**
    - SQL Logon Rules
    - SQL Job Rules
    - Concurrent User Rules
    - SQL Lock Rules
    - SQL Deadlock Rules
    - Database Backup Rules
    - Database Integrity Check Rules
    - SQL Processor Usage Rules
    - SQL IO Usage Rules
    - Database Size Rules
    - Transaction Log Size Rules
    - Query Blocked Process Rules
    - Query Runaway Process Rules
    - Runaway Query Rules
    - In Process Runaway Query Rules
    - Blocked Query Rules
    - Slow Running Trigger Rules
    - Slow Running Procedure Rules
    - Average Fragmentation In Percent Rules
    - Offline Database Rules
    - Security Rules

**Run Options**

SQL Statement Stored Procedure Transact-SQL

SELECT cpu,physical\_io,spid,getdate() as tme  
FROM sysprocesses  
WHERE spid <> @@spid

Database Name: master (\* and ? Are Allowed)

Filter Instances: \*

SQL Time Out: 30 Seconds (Value 0 for Default)

Check Option: Check All Rows

Comparison Column: 0 (When Firing Events Separately)

Save Performance Data Of Numeric Column: 1

Object Name: Processor

Counter Name: Accumulative CPU Usage

Instance Name: Column 3

Only Save The First Row Of Query Results

**Rule Is Not Broken If The Following Conditions Are True**

Numeric(\$1) Greater Than 60000

Rule Is Broken If Failed To Connect To SQL Server

Rule Is Broken If Any Error Occurred

Include The Complete Query Result

Show Actual Query In Alerts

Show Query Result In Tabular Format

Save Performance Data To The Argent Forecaster Using Data Store: (default)

Tag 1:

Send Query Result As Email Attachment In CSV Format

When Testing Rule Send Attachment To

Ignore Attachment If Size Is Greater Than 0 MB

Attachment File Name:

Define the condition with the following dialog box:

**ARGENT OMEGA** (2.2 A - 2207 - A)

Home Theme Argent Instant Help About Logout

**Tool Sets**

- Windows Service Rules
- Windows Program Rules
- Windows Performance Rules
- PowerShell Script Rules
- WMI Script Rules
- LINUX Script Rules
- UNIX Script Rules
- Solaris
- AIX
- HP-UX
- SCO
- Argent Compliance Automator
- Argent Omega Web Defender
- Argent Omega for Microsoft 365
- Argent Omega for SNMP
- Argent Omega for SQL Server
  - SQL Query Rules**
    - QUERY\_CHECK**
    - SQL Logon Rules
    - SQL Job Rules
    - Concurrent User Rules
    - SQL Lock Rules
    - SQL Deadlock Rules
    - Database Backup Rules
    - Database Integrity Check Rules
    - SQL Processor Usage Rules
    - SQL IO Usage Rules
    - Database Size Rules
    - Transaction Log Size Rules
    - Query Blocked Process Rules

**Run Options**

SQL Statement Stored Procedure Transact-SQL

SELECT cpu,physical\_io,spid,getdate() as tme  
FROM sysprocesses  
WHERE spid <> @@spid

Database Name: master (\* and ? Are Allowed)

Filter Instances: \*

SQL Time Out: 30 Seconds (Value 0 for Default)

Check Option: Check All Rows

Comparison Column: 0 (When Firing Events Separately)

Save Performance Data Of Numeric Column: 1

Object Name: Processor

Counter Name: Accumulative CPU Usage

Instance Name: Column 3

Only Save The First Row Of Query Results

**Rule Is Not Broken If The Following Conditions Are True**

Numeric(\$1) Greater Than 60000

Rule Is Broken If Failed To Connect To SQL Server

Rule Is Broken If Any Error Occurred

Include The Complete Query Result

Show Actual Query In Alerts

Show Query Result In Tabular Format

Save Performance Data To The Argent Forecaster Using Data Store: (default)

Tag 1:

Send Query Result As Email Attachment In CSV Format

When Testing Rule Send Attachment To

Ignore Attachment If Size Is Greater Than 0 MB

Attachment File Name:

**SQL Query Subrule**

Column: 1 (Column Number Is Based On One)

Data Type: Numeric Value

Comparison: Less Than

OK Cancel

Multiple conditions can be specified, optionally combined with **OR** clause. If there is no **OR** specified, an **AND** is implied.

The returned data can be saved to the Argent Forecaster. To configure this option, use Save Performance Data of Numeric Column option. The Argent Forecaster is Argent's integrated trend analysis and capacity planning tool.

≡

ARGENT OMEGA (2.2A-2207-A)

Home

Theme

Argent Instant Help

About

Logout

rs39

Tool Sets

Argent Omega Baseline

Argent Compliance Automator

Argent Omega Web Defender

Argent Omega for Microsoft 365

Argent Omega for SNMP

Argent Omega for SQL Server

SQL Query Rules

QUERY\_CHECK

SQL Logon Rules

SQL Job Rules

Concurrent User Rules

SQL Lock Rules

SQL Deadlock Rules

Database Backup Rules

Database Integrity Check Rules

SQL Processor Usage Rules

SQL IO Usage Rules

Database Size Rules

Transaction Log Size Rules

Query Blocked Process Rules

Query Runaway Process Rules

Runaway Query Rules

In Process Runaway Query Rules

Blocked Query Rules

Slow Running Trigger Rules

Slow Running Procedure Rules

Average Fragmentation In Percent Rules

Offline Database Rules

Security Rules

Run Options

SQL Statement

Stored Procedure

Transact-SQL

SELECT cpu,physical\_io,spid,getdate() as tme  
FROM sysprocesses  
WHERE spid <>@@spid

Database Name:master (\*) and ? Are Allowed

Filter Instances:\*= Exclude Specified Instances

SQL Time Out:30 Seconds (Value 0 for Default)

Check Option:Check All Rows

Comparison Column:0 (When Firing Events Separately)

Save Performance Data Of Numeric Column1

Object Name:Processor

Counter Name:Accumulative CPU Usage

Instance Name:Column 3

Only Save The First Row Of Query Results

Rule Is Not Broken If The Following Conditions Are True

Numeric(\$1) Greater Than 60000

Rule Is Broken If Failed To Connect To SQL Server

Rule Is Broken If Any Error Occurred

Include The Complete Query Result

Show Actual Query In Alerts

Show Query Result In Tabular Format

Save Performance Data To The Argent Forecaster Using Data Store:(default)

Send Query Result As Email Attachment In CSV Format

When Testing Rule Send Attachment To

Ignore Attachment If Size Is Greater Than0 MB

Attachment File Name:

Tag 1:

Argent Software

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Page 12 of 34

# SQL Logon Rules

This Rule performs a test logon to the SQL Server instance and verifies that the SQL Server machine is running and is accessible over the network.

The screenshot displays the ARGENT OMEGA (2.2 A - 2207-A) web interface. On the left is a sidebar with a tree view of 'Tool Sets'. The 'SQL Logon Rules' category is expanded, and the 'LOGON\_CHECK' rule is selected. The main panel shows the configuration for the rule 'Rule Is Broken If The Connectivity Of Specific SQL Database Instance Fails'. The configuration includes:

- Filter Instances:** A text input field with an asterisk (\*) and a checkbox for 'Exclude Specified Instances'. A note below states: '(\* And ? Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)'.  
**SQL Timeout:** A dropdown menu set to '30' with the unit 'Seconds'.
- Save Performance Data To The Argent Forecaster Using Data Store:** A dropdown menu set to '(default)'.
- Tags:** Three text input fields labeled 'Tag 1:', 'Tag 2:', and 'Tag 3:'.
- Post Event Even If The Same Event Is Still Outstanding (Unanswered):** A checkbox that is checked.
- Do So Only After:** A configuration for '1' Hour and '0' Minutes Since Event Is Post.
- Ignore The Same Outstanding Event If Alerts Were Fired More Than:** A configuration for '1' Hour and '0' Minutes Ago.
- Post Event Only After Rule Is Broken:** A configuration for '2' Or More Times.
- Reset Counter:** Three radio button options: 'After Event Is Post' (selected), 'After Event Is Answered', and 'After The Actual Condition Is Corrected'.
- Application:** A text input field.
- Reference URL:** A text input field.
- Console Comment:** A text input field containing 'The Connectivity Of Specific SQL Database I'.
- Description:** A rich text editor with a toolbar. The text reads: 'Determines if a SQL server can be connected through SQL SMO APIs. The SQL logon information should be specified in the CMDB-X node properties window'.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

## SQL Job Rules

A SQL Job is a specified series of operations performed sequentially by the SQL Server Agent. A job can perform a wide range of activities, including running Transact-SQL scripts, command prompt applications, Microsoft ActiveX scripts, etc. Argent for SQL Server provides built-in Rules to monitor SQL Server Jobs.

These Rules can be configured to Alert for the following status of any specified SQL Job:

- Failed
- Cancelled
- Succeeded
- In Progress
- Unknown

The screenshot shows the ARGENT OMEGA (2.2 A - 2207-A) configuration interface. The sidebar on the left lists various tool sets, including 'SQL Job Rules' and 'SQLJOB\_CHECK\_FAILED\_JOBS'. The main panel displays the configuration for a rule, with the following options:

- SQL Job Names:** A text input field with a placeholder for a wildcard pattern.
- Rule Is Broken If Following Condition Is Met By:** A dropdown menu set to 'Any Job'.
- Last Run Status Of SQL Job Is One Of Selected:** A section with checkboxes for 'Failed', 'Cancelled', 'Succeeded', 'In Progress', and 'Unknown'.
- Ignore Job With Last Run Time:** A section with a dropdown set to 'Later Than', a value of '7', and a unit of 'Days'.
- Rule Is Broken If Job Has Been Running For More Than:** A section with input fields for '0' hours and '0' minutes.
- Exclude Disabled Jobs:** A checkbox.
- Filter Instances:** A text input field with a placeholder for a wildcard pattern and a checkbox for 'Exclude Specified Instances'.
- SQL Timeout:** A section with a value of '30' and a unit of 'Seconds'.
- Rule Is Broken If Failed To Connect To Server:** A checkbox.
- Rule Is Broken If Any Error Occurred:** A checkbox.
- Save SLA Information To The Argent Predictor:** A checkbox.
- Save Performance Data To The Argent Forecaster Using Data Store:** A dropdown menu set to '(default)'.
- Tag 1:** A text input field.
- Tag 2:** A text input field.
- Tag 3:** A text input field.
- Post Event Even If The Same Event Is Still Outstanding (Unanswered):** A checkbox.
- Do So Only After:** A section with input fields for '1' hour and '0' minutes.
- Ignore The Same Outstanding Event If Alerts Were Fired More Than:** A section with input fields for '1' hour and '0' minutes.
- Post Event Only After Rule Is Broken:** A section with a value of '2' and a unit of 'Or More Times'.
- Reset Counter:** A section with radio buttons for 'After Event Is Post', 'After Event Is Answered', and 'After The Actual Condition Is Corrected'.

Configure option **Ignore Job With Last Run Time** to ignore older jobs.

Configure option **Rule Is Broken If Job Has Been Running More Than** to identify slow running jobs.

## Concurrent User Rules

These Rules monitor the number of users connected to the SQL Server machine at any one time. You can use this Rule to monitor the number of connected users to either the whole of the SQL Server on the machine, or to an individual database.

ARGENT OMEGA (2.2 A - 2207-A)

Home Theme Argent Instant Help About Logout

Tool Sets

- Argent Omega Baseline
- Argent Compliance Automator
- Argent Omega Web Defender
- Argent Omega for Microsoft 365
- Argent Omega for SNMP
- Argent Omega for SQL Server
  - SQL Query Rules
  - SQL Logon Rules
  - SQL Job Rules
  - Concurrent User Rules
    - CU\_CRITICAL**
    - CU\_LOW\_PRIORITY
    - CU\_MEDIUM\_PRIORITY
    - CU\_REPORTING\_ONLY
  - SQL Lock Rules
  - SQL Deadlock Rules
  - Database Backup Rules
  - Database Integrity Check Rules
  - SQL Processor Usage Rules
  - SQL IO Usage Rules
  - Database Size Rules
  - Transaction Log Size Rules
  - Query Blocked Process Rules
  - Query Runaway Process Rules
  - Runaway Query Rules
  - In Process Runaway Query Rules
  - Blocked Query Rules
  - Slow Running Trigger Rules
  - Slow Running Procedure Rules

Save Predictor Data Only

Rule Is Broken If Concurrent User Connections Are Greater Than Threshold

Threshold 1 (Critical): 100 Not Used

Threshold 2 (Medium Priority): 0 Not Used

Threshold 3 (Low Priority): 0 Not Used

Check SQL Database

Specific Database master ("\*" And "?" Are Allowed, Leave Blank For The Default Database)

The Whole SQL Server

Check Concurrent User Connection For Each Individual Database

Filter Instances: Exclude Specified Instances

SQL Timeout: 30 Minutes

Rule Is Broken If Failed To Connect To Server

Rule Is Broken If Any Error Occurred

Save Performance Data For Each Individual Database

Save Performance Data To The Argent Forecaster Using Data Store: {default}

Tag 1:

Tag 2:

Tag 3:

Post Event Even If The Same Event Is Still Outstanding (Unanswered)

Do So Only After 1 Hour 0 Minutes Since Event Is Post

Ignore The Same Outstanding Event If Alerts Were Fired More Than 1 Hour 0 Minutes Ago

Post Event Only After Rule Is Broken 2 Or More Times

Reset Counter

The option **Save Predictor Data Only** saves the connected user count to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If Concurrent User Connections Are Greater Than Threshold** section.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

## SQL Lock Rules

These Rules monitor the number of locks being held by SQL Server. Both exclusive only and all locks can be monitored. You can use this Rule to monitor the number of locks to either the whole of SQL Server on the machine, or to an individual database:

The option **Save Predictor Data Only** saves the SQL lock count to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If System Has Locks Greater Than Threshold** section.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.



# SQL Deadlock Rules

These Rules alert when any Deadlocks are detected in SQL Server. You can use this Rule to check the Deadlocks in a specific database or in the whole of SQL Server on the machine.

**ARGENT OMEGA** (2.2.2A-2207-A)

Home Theme Argent Instant Help About Logout

**Tool Sets**

- Argent Omega Baseline
- Argent Compliance Automator
- Argent Omega Web Defender
- Argent Omega for Microsoft 365
- Argent Omega for SNMP
- Argent Omega for SQL Server
  - SQL Query Rules
  - SQL Logon Rules
  - SQL Job Rules
  - Concurrent User Rules
  - SQL Lock Rules
  - SQL Deadlock Rules**
    - DEADLOCK\_CHECK**
  - Database Backup Rules
  - Database Integrity Check Rules
  - SQL Processor Usage Rules
  - SQL IO Usage Rules
  - Database Size Rules
  - Transaction Log Size Rules
  - Query Blocked Process Rules
  - Query Runaway Process Rules
  - Runaway Query Rules
  - In Process Runaway Query Rules
  - Blocked Query Rules
  - Slow Running Trigger Rules
  - Slow Running Procedure Rules
  - Average Fragmentation In Percent Rules
  - Offline Database Rules
  - Security Rules

**Rule Is Broken If Any Deadlocks Are Detected**

**Check SQL Database**

☒ Specific Database  ("\*" And "?" Are Allowed, Leave Blank For The Default Database)

☐ The Whole SQL Server

**SQL Timeout:**  Seconds

**Filter Instances:**  ☐ Exclude Specified Instances  
("\*" And "?" Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)

☒ Rule Is Broken If Failed To Connect To Server

☒ Rule Is Broken If Any Error Occurred

☒ Save Performance Data To The Argent Forecaster Using Data Store: (default)

Tag 1:

Tag 2:

Tag 3:

☐ Post Event Even If The Same Event Is Still Outstanding (Unanswered)

☐ Do So Only After  Hour  Minutes Since Event Is Post

☐ Ignore The Same Outstanding Event If Alerts Were Fired More Than  Hour  Minutes Ago

☐ Post Event Only After Rule Is Broken  Or More Times

**Reset Counter**

☒ After Event Is Post

☐ After Event Is Answered

☐ After The Actual Condition Is Corrected

**Application:**

**Reference URL:**

**Console Comment:**

**Description:**

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Database Backup Rules

These Rules alert when database last backup time exceeds the specified threshold limit:

There is an option to specify the **Database Name**. Multiple databases can be specified by separating commas. Leave it blank to use the default database configured in CMDB-X.

By checking **Exclude Specified Database** option, the Rule checks the last backup status of all databases in SQL Server, except the databases specified in **Database Name** field.

Specify backup interval in **Database Backup Interval**.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Database Integrity Check Rules

These Rules alert when the last database Integrity Check time exceeds the specified threshold limit:

The screenshot shows the ARGENT OMEGA (2.2A-2207-A) web interface. On the left is a sidebar menu with categories like 'Tool Sets', 'Agent Omega Baseline', 'Agent Compliance Automator', 'Agent Omega Web Defender', 'Agent Omega for Microsoft 365', 'Agent Omega for SNMP', 'Agent Omega for SQL Server', 'SQL Query Rules', 'SQL Logon Rules', 'SQL Job Rules', 'Concurrent User Rules', 'SQL Lock Rules', 'SQL Deadlock Rules', 'Database Backup Rules', 'Database Integrity Check Rules' (highlighted), 'SQL Processor Usage Rules', 'SQL IO Usage Rules', 'Database Size Rules', 'Transaction Log Size Rules', 'Query Blocked Process Rules', 'Query Runaway Process Rules', 'Runaway Query Rules', 'In Process Runaway Query Rules', 'Blocked Query Rules', 'Slow Running Trigger Rules', 'Slow Running Procedure Rules', 'Average Fragmentation In Percent Rules', 'Offline Database Rules', and 'Security Rules'. The main panel is titled 'Rule Is Broken If Database Integrity Check Is Due'. It contains several configuration fields: 'Database Name' (text input with value 'master' and a note: '(\* and ? are Allowed, Use Comma As Separator For Multiple Databases, Leave Blank For The Default Database)'), 'Integrity Check Interval' (5 Days, 0 Hours, 0 Minutes), 'Filter Instances' (text input with value '\*' and a note: '(\* and ? are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)'), 'SQL Timeout' (30 Seconds), 'Rule Is Broken If Failed To Connect To Server' (checked), 'Rule Is Broken If Any Error Occurred' (checked), 'Save Performance Data To The Argent Forecaster Using Data Store' (dropdown set to '(default)'), 'Tag 1', 'Tag 2', 'Tag 3' (text inputs), 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)' (checked), 'Do So Only After' (1 Hour, 0 Minutes Since Event Is Post), 'Ignore The Same Outstanding Event If Alerts Were Fired More Than' (1 Hour, 0 Minutes Ago), 'Post Event Only After Rule Is Broken' (2 Or More Times), 'Reset Counter' (radio buttons for 'After Event Is Post', 'After Event Is Answered', 'After The Actual Condition Is Corrected'), 'Application' (text input), 'Reference URL' (text input), and 'Console Comment' (text input with value 'Database Integrity Check Is Due - Over 5 D').

There is an option to specify the **Database Name**. Multiple databases can be specified by separating commas. Leave it blank to use the default database configured in CMDB-X.

By checking **Exclude Specified Database** option, Rule checks last backup status of all databases in SQL Server except the databases specified in **Database Name** field.

Specify integrity check interval in **Integrity Check Interval**.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# SQL Processor Usage Rules

These Rules monitor the CPU usage per database. It is worth mentioning that SQL Server does not update these statistics in real time:

The screenshot shows the ARGENT OMEGA (2.2 A - 2207 - A) interface. The left sidebar lists various tool sets, including SQL Query Rules, SQL Logon Rules, SQL Job Rules, Concurrent User Rules, SQL Lock Rules, SQL Deadlock Rules, Database Backup Rules, Database Integrity Check Rules, and SQL Processor Usage Rules. The main panel shows the configuration for the 'SQLPU\_CRITICAL' rule. The rule is titled 'Rule Is Broken If CPU Usage (%) Of SQL Process Is Greater Than Threshold'. It has three thresholds: Threshold 1 (Critical) set to 50, Threshold 2 (Medium Priority) set to 0, and Threshold 3 (Low Priority) set to 0. The 'Database Names' section has an 'Include' field with 'master' and an empty 'Exclude' field. The 'Filter Instances' section has a field with '\*' and the 'Exclude Specified Instances' checkbox is checked. The 'SQL Timeout' is set to 30 seconds. The 'Rule Is Broken If Failed To Connect To Server' checkbox is checked. The 'Rule Is Broken If Any Error Occurred' checkbox is checked. The 'Save Performance Data To The Argent Forecaster Using Data Store' dropdown is set to '(default)'. The 'Tag 1', 'Tag 2', and 'Tag 3' fields are empty. The 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)' checkbox is checked. The 'Do So Only After' field is set to 1 hour and 0 minutes. The 'Ignore The Same Outstanding Event If Alerts Were Fired More Than' field is set to 1 hour and 0 minutes. The 'Post Event Only After Rule Is Broken' field is set to 2 or more times. The 'Reset Counter' section has the 'After Event Is Post' radio button selected.

The option **Save Predictor Data Only** saves the Performance Data to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If CPU Usage (%) Of SQL Process Is Greater Than Threshold** section.

Specify the databases to be checked in **Include** field. It is possible to use wildcard pattern, also.

Specify the databases to be excluded in **Exclude** field. This option is useful when using wildcard pattern in the **Include** field.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# SQL IO Usage Rules

These Rules monitor the IO usage per database. It is worth mentioning that SQL Server does not update this statistic in real-time:

The option **Save Predictor Data Only** saves the Performance Data to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If IO Usage (%) Of SQL Process Is Greater Than Threshold** section.

Specify the databases to be checked in **Include** field. It is possible to use wildcard pattern also.

Specify the databases to be excluded in **Exclude** field. This option is useful when using wildcard pattern in **Include** field.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Database Size Rules

These Rules monitor the amount of used database space in the SQL Server (including both data and transaction log). Optionally, the transaction log can be excluded from the metric. By default, the Rule recalculates the statistics before obtaining the database space usage. Optionally, this recalculation can be skipped, thus making faster (but less precise) readings.

You can monitor the whole of the SQL Server on the machine, or individual databases. You can use absolute values (in MB, GB, etc.) or percentages:

The screenshot shows the ARGENT OMEGA (2.2 A - 2207-A) interface. The left sidebar lists various rule categories, with 'Database Size Rules' expanded. The main panel shows the configuration for 'Rule Is Broken If Used Database Size Is Greater Than Threshold'. It includes a 'Unit' dropdown set to '%', three threshold settings (Critical: 60, Medium Priority: 0, Low Priority: 0), and checkboxes for 'Not Used'. Below, the 'Check SQL Database' section has radio buttons for 'Specific Database' (set to 'master') and 'The Whole SQL Server'. Further options include checkboxes for 'Check Database Space For Each Individual Database', 'Exclude Sum Of Databases', 'Fire Alert For Each Individual Database', 'Exclude Specified Database', 'Skip Recalculating Statistics Data Before Reading Metrics', 'Exclude Disk Resource Used By Transaction Log', 'Filter Instances' (set to '\*'), 'Exclude Specified Instances', 'SQL Timeout' (set to 30 seconds), 'Rule Is Broken If Failed To Connect To Server', 'Rule Is Broken If Any Error Occurred', 'Save Performance Data For Each Individual Database', 'Save Performance Data To The Argent Forecaster Using Data Store' (set to '{default}'), and 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)'.

The option **Save Predictor Data Only** saves the database size usage to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If Used Database Size Is Greater Than Threshold** section.

**Check Database Size For Each Individual Database** option checks the size usage of each individual database. This option is useful when **The Whole SQL Server** option is used or multiple databases specified in **Specific Database** field.

**Exclude Sum Of Databases** option skips calculating the database usage sum.

**Fire Alert For Each Individual Database** option checks the database size usage of each individual database and Alerts if the size usage exceeds the threshold.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Transaction Log Size Rules

These Rules monitor the amount of used transaction log space in the SQL Server (including both data and transaction log). You can monitor the whole of the SQL Server on the machine, or individual databases. You can use absolute values (in MB, GB, etc.) or percentages. By default, the Rule will recalculate statistics before obtaining the database space usage. Optionally, this recalculation can be skipped, thus making faster (but less precise) readings:

The screenshot shows the ARGENT OMEGA (2.2A-2207-A) web interface. The sidebar on the left lists various rules, with 'Transaction Log Size Rules' expanded. The main configuration area is titled 'Rule Is Broken If Transaction Log Size Is Greater Than Threshold'. It includes a 'Unit' dropdown set to '%', and three threshold fields: 'Threshold 1 (Critical)' set to 60, 'Threshold 2 (Medium Priority)' set to 0, and 'Threshold 3 (Low Priority)' set to 0. Below this is the 'Check SQL Database' section, which has two radio buttons: 'Specific Database' (selected) and 'The Whole SQL Server'. A text input field next to 'Specific Database' contains 'master'. There are also checkboxes for 'Check Database Space For Each Individual Database', 'Exclude Sum Of Databases', 'Fire Alert For Each Individual Database', 'Exclude Specified Database', and 'Skip Recalculating Statistics Data Before Reading Metrics'. The 'Filter Instances' section has a text input field and a checkbox for 'Exclude Specified Instances'. The 'SQLTimeout' section has a dropdown set to 30 seconds. The 'Save Performance Data' section has a checkbox for 'Save Performance Data For Each Individual Database' and a dropdown for 'Save Performance Data To The Argent Forecaster Using Data Store' set to '(default)'. There are also fields for Tag 1, Tag 2, and Tag 3. At the bottom, there is a checkbox for 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)'.

The option **Save Predictor Data Only** saves the log space usage to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If Transaction Log Size Is Greater Than Threshold** section.

**Check Database Size For Each Individual Database** option checks the Transaction log size usage of each individual database. This option is useful The **Whole SQL Server** option is used or multiple databases specified in **Specific Database** field.

**Exclude Sum Of Databases** option skips calculating the database log size usage sum.

**Fire Alert For Each Individual Database** option checks the transaction log size usage of each individual database and Alerts if the size usage exceeds the threshold.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

## Query Blocked Process Rules

These Rules check whether any SQL system processes that use the specified database have been waiting for longer than the specified threshold:

The screenshot shows the ARGENT OMEGA web interface (version 2.2.A - 2.2.0.7 - A) with a sidebar on the left containing a tree view of tool sets. The main panel is titled 'Rule Is Broken If Any Blocked Process Found'. The configuration fields are as follows:

- Database Name:** A text input field containing 'master'.
- Wait Time:** A numeric input field set to '60' with a unit dropdown set to 'Seconds'.
- Filter Instances:** A text input field containing an asterisk (\*).
- SQL Timeout:** A numeric input field set to '30'.
- Checkboxes:**
  - ☒ Rule Is Broken If Failed To Connect To Server
  - ☒ Rule Is Broken If Any Error Occurred
  - ☒ Save Performance Data To The Argent Forecaster Using Data Store: (default)
- Tags:** Three text input fields labeled 'Tag 1:', 'Tag 2:', and 'Tag 3:'.
- Post Event Even If The Same Event Is Still Outstanding (Unanswered):** A checkbox that is currently unchecked.
- Do So Only After:** A section with two input fields: '1' for 'Hour' and '0' for 'Minutes Since Event Is Post'.
- Ignore The Same Outstanding Event If Alerts Were Fired More Than:** A section with two input fields: '1' for 'Hour' and '0' for 'Minutes Ago'.
- Post Event Only After Rule Is Broken:** A section with an input field set to '2' and a unit dropdown set to 'Or More Times'.
- Reset Counter:** A section with three radio buttons:
  - ☒ After Event Is Post
  - ☐ After Event Is Answered
  - ☐ After The Actual Condition Is Corrected
- Application:** A text input field.
- Reference URL:** A text input field.
- Console Comment:** A text input field containing '\*\*\* Blocked Processes Found \*\*\*'.

Specify the threshold in the **Wait Time** field.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.



## Query Runaway Process Rules

These Rules check whether any SQL system processes that have been running for too long while consuming very little CPU usage. Such system processes are likely to be runaway processes and should be aborted:

The screenshot displays the Argent Omega web interface (version 2.2A-2207-A) with the 'Query Runaway Process Rules' configuration page. The left sidebar shows a tree of tool sets, with 'Query Runaway Process Rules' selected. The main panel is titled 'Rule Is Broken If Any Runaway Process Found' and contains the following configuration options:

- ☒ Rule Is Broken If Cumulative CPU Time For The Process Is Less Than
- ☒ Rule Is Broken If The Client Process Login Time Greater Than    Hours
- Filter Instances:**  ☐ Exclude Specified Instances  
(\* And ? Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)
- SQL Timeout:**    Seconds
- ☒ Rule Is Broken If Failed To Connect To Server
- ☒ Rule Is Broken If Any Error Occurred
- ☒ Save Performance Data To The Argent Forecaster Using Data Store:
- Tag 1:
- Tag 2:
- Tag 3:
- ☒ Post Event Even If The Same Event Is Still Outstanding (Unanswered)
- ☐ Do So Only After    Hour    Minutes Since Event Is Post
- ☒ Ignore The Same Outstanding Event If Alerts Were Fired More Than    Hour    Minutes Ago
- ☒ Post Event Only After Rule Is Broken    Or More Times
- Reset Counter**
  - ☒ After Event Is Post
  - ☐ After Event Is Answered
  - ☐ After The Actual Condition Is Corrected
- Application:**
- Reference URL:**
- Console Comment:**
- Description:**

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Runaway Query Rules

This Rule checks whether any SQL query that has been running for too long in specified SQL Server.

Specify the time threshold in **Rule Is Broken If The Query Execution Time Greater Than** section:

The screenshot displays the ARGENT OMEGA 2.2.0A-2.2.07-A web interface. On the left is a sidebar with a tree view of rule categories, including AIX, HP-UX, SCO, and various SQL Server rules. The main area is titled 'Rule Is Broken If Any Runaway Query Found'. It contains several configuration sections: 'Rule Is Broken If The Query Execution Time Greater Than' with a value of 60 seconds; 'Filter Instances' with a text input and an 'Exclude Specified Instances' checkbox; 'SQL Timeout' with a value of 30 seconds; and a 'Rule Is Broken If' section with checkboxes for 'Failed To Connect To Server', 'Any Error Occurred', and 'Save Performance Data To The Argent Forecaster Using Data Store'. Below these are fields for 'Tag 1', 'Tag 2', and 'Tag 3'. There are also options for 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)', 'Do So Only After' (1 hour, 0 minutes), 'Ignore The Same Outstanding Event If Alerts Were Fired More Than' (1 hour, 0 minutes), and 'Post Event Only After Rule Is Broken' (2 or more times). A 'Reset Counter' section has three radio button options. The 'Application' field is empty, 'Reference URL' is empty, and 'Console Comment' is '\*\*\* Query Execution Time Exceeds 60 Secor'. The 'Description' section has a text area with the text 'This Rule checks whether any SQL query that have been running for too long'. At the bottom, there is a status bar with a 'Full Screen' button.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

## In Process Runaway Query Rules

This Rule alerts when the execution time of any currently-running SQL Query exceeds the specified threshold. Specify the time threshold in **Rule Is Broken If The Query Execution Time Greater Than** section:

The screenshot displays the Argent Omega web interface (version 2.2 A-2207-A) with the 'In Process Runaway Query Rules' configuration page. The left sidebar shows a tree view of various rule categories, with 'In Process Runaway Query Rules' selected. The main configuration area includes the following sections:

- Rule Is Broken If Any Currently Processing Query Is A Runaway Query**
- Rule Is Broken If The Query Execution Time Greater Than:** A dropdown menu set to '60' and 'Seconds'.
- Filter Instances:** A text input field with a placeholder '(\* And ?) Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances' and a checkbox for 'Exclude Specified Instances'.
- SQL Timeout:** A dropdown menu set to '30' and 'Seconds'.
- Exclude System Queries:** A checked checkbox.
- Rule Is Broken If Failed To Connect To Server:** A checked checkbox.
- Rule Is Broken If Any Error Occurred:** A checked checkbox.
- Save Performance Data To The Argent Forecaster Using Data Store:** A dropdown menu set to '(default)'.
- Tag 1:** A text input field.
- Tag 2:** A text input field.
- Tag 3:** A text input field.
- Post Event Even If The Same Event Is Still Outstanding (Unanswered):** A checked checkbox.
- Do So Only After:** A dropdown menu set to '1' and 'Hour'.
- Ignore The Same Outstanding Event If Alerts Were Fired More Than:** A dropdown menu set to '1' and 'Hour'.
- Post Event Only After Rule Is Broken:** A dropdown menu set to '2' and 'Or More Times'.
- Reset Counter:** A section with three radio buttons: 'After Event Is Post' (selected), 'After Event Is Answered', and 'After The Actual Condition Is Corrected'.
- Application:** A text input field.
- Reference URL:** A text input field.
- Console Comment:** A text input field containing '\*\*\* Query Execution Time Exceeds 60 Secor'.
- Description:** A text input field.

The **Exclude System Queries** option skips the checking of system SQL queries.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

## Blocked Query Rules

Blocking in SQL Servers happens when a connection to SQL Server blocks one or more query, and another connection to SQL Server requires a conflicting lock type on query, or query locked by the primary connection. This leads to another connection waiting until the primary connection releases its lock.

Blocked Query Rules alerts when any blocked queries are detected:

The screenshot displays the Argent Omega web interface for configuring the 'Blocked Query Rules' alert. The interface includes a sidebar with a tree view of various rules, a main configuration area, and a bottom toolbar.

**Argent Omega (2.2A-2207-A)**

**Rule Is Broken If Any Blocked Query Found**

**Filter Instances:**  ☐ Exclude Specified Instances  
(\* and ? are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)

**SQL Timeout:**  Seconds

☒ Rule Is Broken If Failed To Connect To Server

☒ Rule Is Broken If Any Error Occurred

☒ Save Performance Data To The Argent Forecaster Using Data Store:

Tag 1:

Tag 2:

Tag 3:

☐ Post Event Even If The Same Event Is Still Outstanding (Unanswered)

☐ Do So Only After  Hour  Minutes Since Event Is Post

☐ Ignore The Same Outstanding Event If Alerts Were Fired More Than  Hour  Minutes Ago

☐ Post Event Only After Rule Is Broken  Or More Times

**Reset Counter**

☒ After Event Is Post

☐ After Event Is Answered

☐ After The Actual Condition Is Corrected

**Application:**

**Reference URL:**

**Console Comment:**

**Description:**

**Alerts:**

- Correction
- Notification

**Full Screen**

# Slow Running Trigger Rules

The Slow Running Trigger Rule alerts if any trigger takes more time than usual to complete the execution.

There is an option to monitor the triggers configured in particular databases by specifying the database names in Include or Exclude fields:

The screenshot shows the ARGENT OMEGA web interface. The sidebar on the left contains a tree view of rule categories, with 'Slow Running Trigger Rules' expanded. The main configuration area is titled 'Rule Is Broken If Any Trigger's Average Execution Time Is Greater Than Threshold'. It includes a 'Unit' dropdown set to 'Seconds', and three threshold fields: 'Threshold 1 (Critical): 10', 'Threshold 2 (Medium Priority): 0', and 'Threshold 3 (Low Priority): 0'. Each threshold has a 'Not Used' checkbox. The 'Database Names' section has an 'Include' field with 'master' and an empty 'Exclude' field. The 'Filter Instances' section has a field with '\*' and an 'Exclude Specified Instances' checkbox. The 'SQL Timeout' is set to 30 seconds. There are checkboxes for 'Rule Is Broken If Failed To Connect To Server', 'Rule Is Broken If Any Error Occurred', and 'Save Performance Data To The Argent Forecaster Using Data Store: (default)'. There are three tags (Tag 1, Tag 2, Tag 3) and checkboxes for 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)', 'Do So Only After 1 Hour 0 Minutes Since Event Is Post', 'Ignore The Same Outstanding Event If Alerts Were Fired More Than 1 Hour 0 Minutes Ago', and 'Post Event Only After Rule Is Broken 2 Or More Times'.

The option **Save Predictor Data Only** saves the Performance Data to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If Any Trigger's Average Execution Time Is Greater Than Threshold** section.

Specify the databases to be checked in **Include** field. It is possible to use wildcard pattern also.

Specify the databases to be excluded in **Exclude** field. This option is useful when using wildcard pattern in **Include** field.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Slow Running Procedure Rules

The Slow Running Procedure Rule alerts if any stored procedure takes more time than usual to complete the execution. There is an option to monitor the stored procedures in particular databases by specifying the database names in Include or Exclude fields:

The screenshot shows the ARGENT OMEGA configuration interface. On the left is a sidebar with a tree view of rule categories: Argent Omega for SQL Server, SQL Query Rules, SQL Logon Rules, SQL Job Rules, Concurrent User Rules, SQL Lock Rules, SQL Deadlock Rules, Database Backup Rules, Database Integrity Check Rules, SQL Processor Usage Rules, SQL IO Usage Rules, Database Size Rules, Transaction Log Size Rules, Query Blocked Process Rules, Query Runaway Process Rules, Runaway Query Rules, In Process Runaway Query Rules, Blocked Query Rules, Slow Running Trigger Rules, and Slow Running Procedure Rules. The 'Slow Running Procedure Rules' category is expanded, showing sub-options: SRP\_CRITICAL (selected), SRP\_LOW\_PRIORITY, and SRP\_MEDIUM\_PRIORITY. The main configuration area for the 'SRP\_CRITICAL' rule is displayed. It includes a 'Save Predictor Data Only' checkbox, a 'Rule Is Broken If Any Procedure's Average Execution Time Is Greater Than Threshold' section with 'Unit' set to 'Seconds' and three thresholds (Critical: 10, Medium: 0, Low: 0), all with 'Not Used' checkboxes. Below this is the 'Database Names' section with 'Include' and 'Exclude' text boxes. The 'Filter Instances' section has a text box and an 'Exclude Specified Instances' checkbox. The 'SQL Timeout' is set to 30 seconds. There are checkboxes for 'Rule Is Broken If Failed To Connect To Server' and 'Rule Is Broken If Any Error Occurred'. A 'Save Performance Data To The Argent Forecaster Using Data Store:' dropdown is set to '(default)'. Below this are three 'Tag' text boxes. Further down are checkboxes for 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)', 'Do So Only After' (1 hour, 0 minutes), 'Ignore The Same Outstanding Event If Alerts Were Fired More Than' (1 hour, 0 minutes), and 'Post Event Only After Rule Is Broken' (2 or more times).

The option **Save Predictor Data Only** saves the Performance Data to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If Any Procedure's Average Execution Time Is Greater Than Threshold** section.

Specify the databases to be checked in **Include** field. It is possible to use wildcard pattern also.

Specify the databases to be excluded in **Exclude** field. This option is useful when using wildcard pattern in **Include** field.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Average Fragmentation In Percent Rules

Average Fragmentation In Percent Rules help Database Administrators to identify the percentage of fragmentation for indexes larger than 5,000 pages. You can monitor the percentage of fragmentation of all databases in SQL Server, or specific databases:

The screenshot displays the ARGENT OMEGA (2.2 A-2207-A) configuration interface. The sidebar on the left shows a tree view of rules, with 'Average Fragmentation In Percent Rules' expanded to show 'AFIP\_CRITICAL' and 'AFIP\_LOW\_PRIORITY'. The main configuration area for the 'Rule Is Broken If SQL Database Index Fragmentation Percent Is Greater Than Threshold' rule includes the following sections:

- Save Predictor Data Only:** A checkbox option.
- Thresholds:** Three thresholds are defined: Threshold 1 (Critical) at 0.40, Threshold 2 (Medium Priority) at 0.00, and Threshold 3 (Low Priority) at 0.00. Each has a 'Not Used' checkbox.
- Check SQL Database:** Two radio buttons: 'Specific Database' (selected) and 'The Whole SQL Server'. The 'Specific Database' field contains 'master'.
- Page Count:** A dropdown menu set to '5,000'.
- Scan Level:** A dropdown menu set to 'Detailed'.
- Filter Instances:** A text field containing '\*' and a checkbox for 'Exclude Specified Instances'.
- SQL Timeout:** A dropdown menu set to '30' seconds.
- Event Handling:** Several checkboxes and dropdowns for configuring event posting and alerting, including 'Rule Is Broken If Failed To Connect To Server', 'Rule Is Broken If Any Error Occurred', 'Save Performance Data To The Argent Forecaster Using Data Store' (set to 'default'), and 'Post Event Even If The Same Event Is Still Outstanding (Unanswered)'.

The option **Save Predictor Data Only** saves the performance data to Argent Forecaster only. No Alerts will be fired.

Specify threshold in **Rule Is Broken If SQL Database Index Fragmentation Percent Is Greater Than Threshold** section.

There are options to specify **Page Count** and **Scan Level**.

The **Filter Instances** option filters the SQL Server instances configured in CMDB-X.

# Offline Database Rules

This Rule alerts when a database is offline. There are options to check the database status of specific databases or whole databases in SQL Server:

≡

ARGENT OMEGA

(2.2 A - 2207-A)

Home

Theme

Argent Instant Help

About

Logout

95398

Database Backup Rules

Database Integrity Check Rules

SQL Processor Usage Rules

SQL IO Usage Rules

Database Size Rules

Transaction Log Size Rules

Query Blocked Process Rules

Query Runaway Process Rules

Runaway Query Rules

In Process Runaway Query Rules

Blocked Query Rules

Slow Running Trigger Rules

Slow Running Procedure Rules

Average Fragmentation In Percent Rules

Offline Database Rules

**OLDB\_CHECK**

Security Rules

Long Running Open Transactions Rules

Windows Service Rules

Windows Performance Rules

Alerts

Correction

Notification

Alert Macro

Monitoring Groups

Relators

Macros

Email Recipients

SMS Recipients

Windows Services

Rule Is Broken If SQL Database Is Offline

Check SQL Database

Specific Database

master

(\* And ? Are Allowed, Leave Blank For The Default Database)

The Whole SQL Server

SQL Timeout:

30

Seconds

Filter Instances:

\*

Exclude Specified Instances

(\* And ? Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)

☒ Rule Is Broken If Failed To Connect To Server

☒ Rule Is Broken If Any Error Occurred

Save Performance Data To The Argent Forecaster Using Data Store:

{default}

Tag 1:

Tag 2:

Tag 3:

☐ Post Event Even If The Same Event Is Still Outstanding (Unanswered)

Do So Only After

1

Hour

0

Minutes Since Event Is Post

Ignore The Same Outstanding Event If Alerts Were Fired More Than

1

Hour

0

Minutes Ago

Post Event Only After Rule Is Broken

2

Or More Times

Reset Counter

☒ After Event Is Post

☐ After Event Is Answered

☐ After The Actual Condition Is Corrected

Application:

Reference URL:

Console Comment:

\*\* SQL Database Is Offline \*\*

Argent Software  
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Page 32 of 34



# Security Rules

This Rule alerts when any security-related SQL statements such as CREATE or ALTER or DROP LOGIN, CREATE or ALTER or DROP USER, GRANT, REVOKE, sp\_addrolemember, sp\_droprolemember, sp\_adduser, sp\_dropuser, etc. were executed in SQL Server:

≡ ARGENT OMEGA (2.2A-2207-A)

Home

Theme

Argent Instant Help

About

Logout

Database Backup Rules

Database Integrity Check Rules

SQL Processor Usage Rules

Database Size Rules

Transaction Log Size Rules

Query Blocked Process Rules

Query Runaway Process Rules

Runaway Query Rules

In Process Runaway Query Rules

Blocked Query Rules

Slow Running Trigger Rules

Slow Running Procedure Rules

Average Fragmentation In Percent Rules

Offline Database Rules

Security Rules

SEC\_CHECK

Long Running Open Transactions Rules

Windows Service Rules

Windows Performance Rules

Alerts

Correction

Notification

Alert Macro

Monitoring Groups

Relators

Macros

Email Recipients

SMS Recipients

Windows Services

Rule Is Broken If Security Related SQL Statements Were Executed

Filter Instances: \* Exclude Specified Instances  
(\* And ? Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances)

SQL Timeout: 30 Seconds

☒ Rule Is Broken If Failed To Connect To Server

☒ Rule Is Broken If Any Error Occurred

☒ Save Performance Data To The Argent Forecaster Using Data Store: (default)

Tag 1:

Tag 2:

Tag 3:

☐ Post Event Even If The Same Event Is Still Outstanding (Unanswered)

☐ Do So Only After 1 Hour 0 Minutes Since Event Is Post

☐ Ignore The Same Outstanding Event If Alerts Were Fired More Than 1 Hour 0 Minutes Ago

☐ Post Event Only After Rule Is Broken 2 Or More Times

Reset Counter

☒ After Event Is Post

☐ After Event Is Answered

☐ After The Actual Condition Is Corrected

Application:

Reference URL:

Console Comment: \*\*\* Security-related SQL Statements Execut

Description:  
This Rule checks the execution of the following commands  
CREATE/ALTER/DROP LOGIN CREATE/ALTER/DROP USER GRANT REVOKE sp\_addrolemember sp\_droprolemember sp\_adduser sp\_dropuser

# Long-Running Open Transaction Rules

The Long Running Open Transactions Rule alerts if any transaction takes more time than the configured threshold to complete the execution. There is an option to monitor the transactions related to particular databases by specifying the database names in Include or Exclude fields:

The screenshot shows the ARGENT OMEGA configuration interface for the Long Running Open Transactions Rule. The interface is divided into a left sidebar with a tree view of rules and a main configuration area on the right. The top navigation bar includes the ARGENT OMEGA logo, version (2.2 A - 2207-A), and links for Home, Theme, Argent Instant Help, About, and Logout.

**Left Sidebar:**

- Database Backup Rules
- Database Integrity Check Rules
- SQL Processor Usage Rules
- SQL IO Usage Rules
- Database Size Rules
- Transaction Log Size Rules
- Query Blocked Process Rules
- Query Runaway Process Rules
- Runaway Query Rules
- In Process Runaway Query Rules
- Blocked Query Rules
- Slow Running Trigger Rules
- Slow Running Procedure Rules
- Average Fragmentation In Percent Rules
- Offline Database Rules
- Security Rules
- Long Running Open Transactions Rules
  - LROT\_CRITICAL**
  - LROT\_LOW\_PRIORITY
  - LROT\_MEDIUM\_PRIORITY
- Windows Service Rules
- Windows Performance Rules
- Alerts
  - Correction
  - Notification
  - Alert Macro
- Monitoring Groups
- Relators
- Macros
- Email Recipients

**Main Configuration Area:**

☐ Save Predictor Data Only

**Rule Is Broken If Running Time Of Any Open Database Transaction Is Greater Than Threshold**

**Unit:** Minutes

**Threshold 1 (Critical):** 1 Not Used

**Threshold 2 (Medium Priority):** 0 Not Used

**Threshold 3 (Low Priority):** 0 Not Used

**Database Names**

**Include:** master

**Exclude:**

( "\*" And "?" Are Allowed, Use Comma As Separator For Multiple Databases, Leave Blank For The Default Database )

**Filter Instances:** \* ☐ Exclude Specified Instances

( "\*" And "?" Are Allowed, Use Comma As Separator For Multiple Instances, Leave Blank For The Default Instances )

**SQL Timeout:** 30 Seconds

☒ Rule Is Broken If Failed To Connect To Server

☒ Rule Is Broken If Any Error Occurred

☐ Save Performance Data To The Argent Forecaster Using Data Store: (default)

Tag 1:

Tag 2:

Tag 3:

☐ Post Event Even If The Same Event Is Still Outstanding (Unanswered)

☐ Do So Only After 1 Hour 0 Minutes Since Event Is Post

☐ Ignore The Same Outstanding Event If Alerts Were Fired More Than 1 Hour 0 Minutes Ago

☐ Post Event Only After Rule Is Broken 2 Or More Times

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