



NORAD Surveillance DB for Sybase

NORAD Surveillance DB for Sybase provides several predefined rule templates and parameters which can immediately apply to Sybase entities through the standard Analyzer agent. The Analyzer agent also allows the user to define custom single entity rule templates. These templates can be applied to multiple databases with different thresholds, refresh rates, and other characteristics. For more information in defining and applying rule templates and parameters please refer to the *NORAD Surveillance User's Guide*.

Parameters

Predefined rule templates use one or more of the following standard parameter names:

Parameter Name	Type	Description
REFRESH	Integer	The time interval used to poll the statistic and test the rule. The time value unit is rule dependent, but typically it is seconds.
OCCURRENCES_HITS	Integer	The number of times the condition was TRUE for this rule within the OCCURRENCES_WINDOW.
OCCURRENCES_WINDOW	Integer	The number of previous intervals to test backward to evaluate whether or not a rule condition has been satisfied.
VALUE	Type Specific	This parameter (usually a number) represents the value to test for inside the rule.

Sybase Rules

SYB_DATABASES_DATA_SPACE_UTIL

Uses the DATABASE collection to monitor the data space utilization.

Description	Data space % full exceeds value
Collection	database
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90

SYB_DATABASES_HOURS_SINCE_DUMP

Monitors for databases which have not had a dump transaction performed for longer than a user specified time period.

Description	Hours since last dump transaction exceeds value
Collection	database
Occurrence Hits	1
Occurrence Window	1
Default Refresh	3600 (Seconds)
Default Value	72

SYB_DATABASES_LOG_SPACE_UTIL

Uses the DATABASE collection to monitor the log space utilization.

Description	Log space % full exceeds value
Collection	databases
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90

Predefined Analyser Rules for Sybase

SYB_DATABASES_TOTAL_SPACE_UTIL

Uses the DATABASE collection to monitor the data plus log space utilization.

Description	Data + Log space % full exceeds value
Collection	database
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90

SYB_DEVSPACE_PERCENTUSED

Description	Device utilization exceeds value
Collection	devspace
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90

SYB_GLOB_ACTIVE_LOCKS

Monitors the active (granted) locks during the sample interval.

Description	Active Lock count exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	100

SYB_GLOB_BLOCKED

Database contention may cause lock requests to be blocked. The global number of blocked processes is monitored by this rule.

Description	Blocked Process count exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	1

SYB_GLOB_CPU_UTIL

Monitors the overall CPU utilization as reported by Sybase. If the server is dedicated to the RDBMS, set the threshold higher. To filter out occasional high CPU occurrences and identify periods of prolonged high CPU usage, modify the occurrence hits/occurrence window parameter values. For example, where hits is set to 5 and window is set to 10, an event fires only if the CPU utilization has exceeded the threshold in 5 out of the last ten samples.

Description	CPU Utilization exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	50

SYB_GLOB_DISK_ERRORS_CURR

Monitors the number of disk errors observed during the sample interval.

Description	Current Disk Errors exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1

Predefined Analyser Rules for Sybase

Default Refresh	60 (Secs)
Default Value	10

SYB_GLOB_DISK_ERRORS_TOT

Monitors the number of disk errors observed since the RDBMS was started.

Description	Total Disk Errors exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	100

SYB_GLOB_DISKIO

Disk access is much slower than memory access. Disk I/O bottlenecks can inhibit the performance of the RDBMS. The global Disk I/O rate measurement indicates the level of disk I/O activity to help identify potential problems.

Description	Disk I/O rate exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	50

SYB_GLOB_LOG_SUSPENDS

Monitors suspension of transaction activity because the transaction log is full. This rule only monitors the count of suspensions and does not have access to details as to which database is suspended or what the transaction is that caused the suspension. This rule is useful in cases where the 'normal' suspension rate is non-zero but a higher count is an possible indication of problems.

Description	Databases suspended for log space exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Seconds)
Default Value	1

SYB_GLOB_LONGBLOCKWAIT

Monitors the longest time that a process has been blocked.

Description	Longest Block Wait (sec) exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	1

SYB_GLOB_MEMORY_USAGE

Monitors server memory utilization in Mbytes, which can be dynamically allocated.

Description	Memory usage exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Seconds)
Default Value	100 (Mbytes)

SYB_GLOB_PACKET_ERRORS_CURR

Monitors the number of network packet errors observed during the sample interval.

Predefined Analyser Rules for Sybase

Description	Current Packet Errors exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	10

SYB_GLOB_PACKET_ERRORS_TOT

Monitors the number of network packet errors observed since the RDBMS was started.

Description	Total Packet Errors exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	100

SYB_GLOB_PACKETIO

Packet I/O identifies the network activity of the RDBMS.

Description	Packet I/O rate exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	50

SYB_GLOB_PROCESSES

Monitors the number of simultaneous processes executing on the RDBMS.

Description	Process count exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	100

SYB_GLOB_USERS

Monitors the number of user logins to the RDBMS.

Description	User count exceeds value
Collection	globalstats
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	50

SYB_HEALTH_CONFIG_LIMITS

Monitors percent utilization of 'hard' configuration limits.

Description	Configuration limit exceeds value
Collection	CONFIG_VS_ACTUAL
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90 (Percent)

SYB_HEALTH_DATABASE_SPACE_125

Monitors percent data space utilization in all databases. Uses a more accurate measurement than the database collection, but is only available for Sybase ASE 12.5 and later databases.

Predefined Analyser Rules for Sybase

Description	Database data space exceeds value
Collection	DATABASE_STATUS
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90 (Percent)

SYB_HEALTH_HOURS_SINCE_DUMP_125

Monitors the number hours since any database has been dumped. Uses the same collection as other SYB_HEALTH rules which is only available for ASE version 12.5 or later. For prior ASE versions, use the rule for the DATABASES collection.

Description	Hours since last database dump exceeds value
Collection	DATABASE_STATUS
Occurrence Hits	1
Occurrence Window	1
Default Refresh	3600 (Seconds)
Default Value	72

SYB_HEALTH_LOG_SPACE_125

Monitors percent transaction log space utilization in all databases. Uses a more accurate measurement than the database collection, but is only available for Sybase ASE 12.5 and later databases.

Description	Database log space exceeds value
Collection	DATABASE_STATUS
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	90 (Percent)

SYB_HEALTH_LOG_SUSPENDS

Monitors suspension of transaction activity in databases because the transaction log is full.

Description	Transaction suspended on log space
Collection	LOGSHOLD
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	N/A

SYB_LOGFILE_ERROR

Description	Error ASE log entry found
Collection	logfile
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	N/A

SYB_LOGFILE_HALT

Description	Shutdown ASE log entry found
Collection	logfile
Occurrence Hits	1
Occurrence Window	1
Default Refresh	600 (Seconds)
Default Value	N/A

SYB_LOGINS_CURR_CONNECTIONS

Monitors the number of active connections into the RDBMS by each login.

Predefined Analyser Rules for Sybase

Description	Current connections exceeds value
Collection	logins
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	5

SYB_LOGINS_CURR_CPU_PERCENT

Monitors the CPU utilization by Login during the sample interval.

Description	
Collection	logins
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	20

SYB_LOGINS_CURR_MEMORY

Monitors the memory blocks utilized by the Login during the sample interval.

Description	Current Memory usage for Login exceeds value
Collection	logins
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	10

SYB_LOGINS_DEFAULT_DATABASE

Monitors for specific default databases.

Description	Default database for Login like name
Collection	logins
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	master

SYB_LOGINS_UNSECURE_PASSWORD

Monitors for Logins with unsecured passwords (i.e., passwords that are NULL or less than 6 characters).

Description	Password < 6 chars or NULL
Collection	logins
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Minutes)
Default Value	NA

SYB_PROCESS_BLOCKED_TIME

Monitors for specific processes that have been blocked for more than a user- specified amount of time

Description	Seconds Blocked exceeds value
Collection	processes
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	10

SYB_PROCESS_CPU_PERCENT

Monitors for specific processes that have CPU utilization greater than a user specified value.

Predefined Analyser Rules for Sybase

Description	Process CPU percent exceeds value
Collection	processes
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	10

SYB_PROCESS_DECEASED_SPID

Monitors for *deceased* processes, processes that no longer appear in the processes collection during the current interval.

Description	Record Deceased SPIDs
Collection	processes
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	NA

SYB_PROCESS_NEW_SPID

Monitors for *new* processes, processes that have not appeared in the processes collection until the current interval. The first collection is ignored.

Description	Record New SPIDs
Collection	processes
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	NA

SYB_PROCESS_PHYSIO_RATE

Monitors for specific processes that have Physical I/O rates greater than a user-specified value.

Description	Physical I/O rate exceeds value
Collection	processes
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	10

SYB_PROCESS_STATUS

Monitors for processes with a specific status. The '%' can be used at the end of a string for wild card searches. When setting the value, DO NOT use quotes (the rule condition already has the proper quotes included).

Description	Process status like value
Collection	processes
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Secs)
Default Value	(Blank)

SYB_PROCESS_TRANSACTION_NAME

Monitors for processes with a specific transaction name. This rule is only applicable to Sybase version 10 and later. The '%' can be used at the end of a string for wild card searches. When setting the value, DO NOT use quotes (the rule condition already has the proper quotes included).

Description	Transaction Name like value
Collection	processes
Occurrence Hits	1
Occurrence Window	1

Predefined Analyser Rules for Sybase

Default Refresh	60 (Secs)
Default Value	(Blank)

SYB_REP_AGENT_PROBLEM

Monitors databases marked for replication and their associated REP_AGENT process.

Description	Replication Agent state indicates problem
Collection	REPLICATION_AGENT
Occurrence Hits	1
Occurrence Window	1
Default Refresh	60 (Seconds)
Default Value	N/A