

# CA Unified Infrastructure Management.

## Probe Guide for DB2 Database Monitoring db2 v4.0 series



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## Documentation Changes

This table describes the version history for this document.

<b>Version</b>	<b>Date</b>	<b>What's New?</b>
4.0	December 2013	Documentation on initial web-based GUI version of the db2 probe. (Previous versions of this probe are configured using Infrastructure Manager).

# Chapter 1: Overview

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The DB2 Database Monitoring probe monitors DB2 instances, databases, table spaces, and applications. This probe uses the DB2 snapshot and tablespace statistic APIs to extract vital information about your DB2 servers.

This section contains the following topics:

[About This Guide](#) (see page 7)

[Related Documentation](#) (see page 7)

[Preconfiguration Requirements](#) (see page 7)

## About This Guide

This guide provides information about how the DB2 Database Monitoring probe is configured for CA UIM Monitor. This guide contains the following information:

- Overview of the DB2 Database Monitoring probe and related documentation for previous probe versions.
- Configuration details of the probe.
- Field information and common procedures required for configuring the probe.

**Important!** Description for intuitive GUI fields is not included in the document.

## Related Documentation

### Related Documentation

Documentation for other versions of the db2 probe

The [Release Notes](#) for the db2 probe

[User documentation for the Admin Console](#)

*Monitor Metrics Reference Information for CA Unified Infrastructure Management Probes*

([http://docs.nimsoft.com/prodhelp/en\\_US/Probes/ProbeReference/index.htm](http://docs.nimsoft.com/prodhelp/en_US/Probes/ProbeReference/index.htm))

## Preconfiguration Requirements

This section contains the preconfiguration requirements for the CA UIM DB2 Database Monitoring probe.

## Supported Platforms

Refer to the CA UIM [Compatibility Support Matrix](#) for the latest information on supported platforms. See also the [Support Matrix for CA UIM Probes](#) for information on the DB2 Database Monitoring probe.

The DB2 Database Monitoring probe supports DB2 version 10.1, and 10.5 only.

# Chapter 2: Configuration Details

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The DB2 Database Monitoring probe can monitor 280 DB2 snapshots, statistic counters, and calculated values.

- i\_agents\_created\_ratio
- i\_piped\_sorts\_rejected
- db\_pool\_hit\_ratio
- db\_avg\_sort\_time
- db\_pct\_sort\_overflows
- db\_avg\_sort\_heap
- db\_pct\_hjs\_overflows
- db\_pool\_sync\_reads
- db\_pool\_sync\_writes
- db\_pool\_sync\_idx\_writes
- db\_pool\_sync\_idx\_reads
- db\_pool\_avg\_async\_read\_time
- db\_pool\_avg\_async\_write\_time
- db\_pool\_sync\_write\_time
- db\_pool\_avg\_write\_time
- db\_avg\_direct\_read\_time
- db\_avg\_direct\_write\_time
- db\_cat\_cache\_hit\_rto
- app\_avg\_sort\_time
- app\_pct\_sort\_overflows
- app\_pool\_hit\_ratio
- app\_avg\_direct\_read\_time
- app\_avg\_direct\_write\_time
- app\_cat\_cache\_hit\_rto
- app\_pkg\_cache\_hit\_rto
- app\_locklist\_util

- bp\_pool\_hit\_ratio
- bp\_pool\_avg\_async\_read\_time
- bp\_pool\_avg\_async\_write\_time
- bp\_pool\_sync\_write\_time
- bp\_pool\_avg\_write\_time
- bp\_avg\_direct\_read\_time
- bp\_avg\_direct\_write\_time
- bp\_pool\_sync\_reads
- bp\_pool\_sync\_writes
- bp\_pool\_sync\_idx\_writes
- bp\_pool\_sync\_idx\_reads
- ts\_usable\_pages\_pct
- ts\_used\_pages\_pct
- ts\_free\_pages\_pct
- ts\_max\_used\_pages\_pct

- `i_pct_active_connections`

The initial configuration of the DB2 Database Monitoring probe is done by defining connections and profiles for monitored instances, using the GUI. The probe can run locally on the database server or it can be configured to run as a remote client. Every profile runs in its own thread.

This section contains the following topics:

[db2 Node](#) (see page 12)

[Configure a Node](#) (see page 19)

[Create Connection](#) (see page 19)

[Delete Connection](#) (see page 20)

[Add Checkpoint](#) (see page 20)

[Delete Checkpoint](#) (see page 20)

[Add Row Identifier](#) (see page 21)

[Delete Row Identifier](#) (see page 21)

[Add Message Variable](#) (see page 21)

[Delete Message Variable](#) (see page 22)

[Add Threshold](#) (see page 22)

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[Add QoS](#) (see page 23)

[Delete QoS](#) (see page 23)

[Add Exclude Pattern](#) (see page 23)

[Delete Exclude Pattern](#) (see page 24)

[Manage Profiles](#) (see page 24)

[Delete Profile](#) (see page 25)

[Add Profile Checkpoint](#) (see page 25)

[Delete Profile Checkpoint](#) (see page 25)

## db2 Node

The db2 node contains the configuration details specific to the DB2 Database Monitoring probe. In this node, you can view the probe information and can configure the setup properties of the DB2 Database Monitoring probe. You can also view a list of all alarm messages that are available in the DB2 Database Monitoring probe.

**Navigation:** db2

Set or modify the following values as required:

**db2 > Probe Information**

This section provides information about the probe name, probe version, start time of the probe, and the vendor who created the probe.

**db2 > General**

This section lets you configure the setup properties of the DB2 Database Monitoring probe.

- **Clear Alarm on Restart Only:** Clears all alarms when the DB2 Database Monitoring probe is restarted.  
Default: Selected
- **Alarm Severity Filter:** Specifies a filter on severity level of an event for considering an event as an alarm. Events matching the selected severity level and higher, generates alarms. If major is selected, then the messages with severity level as major and above are considered as alarms.  
Default: clear
- **Log Size (KB):** Sets the log file size where the internal log messages are saved.  
Default: 100
- **Log Level:** Specifies the detail level of the log file.  
Default: 2 - High
- **QoS V2 Compatibility:** Provides backward compatibility to the V2 framework.  
Default: Not Selected
- **All Database Status:** Lets you fetch the status of all databases except for the default database.  
Default: Not Selected

**db2 > Message pool**

This section displays a list of all alarm messages that are available in the DB2 Database Monitoring probe.

- **Text:** Identifies the message text.
- **i18n\_token:** Identifies the predefined alarms fetched from the database.

**db2 > Options icon > Create New Connection**

This section lets you create various connections to instances that the DB2 Database Monitoring probe monitors. You can specify the user ID, password, and server name you want to use to connect to the instance.

- **User ID:** Defines the user id with SYSADM, SYSCTRL or SYSMAINT authorization.
- **Instance Node (Manually):** Defines the node name under which the instance you want to connect to is cataloged in the node directory.
- **DB Default Details (Manually):** Defines the database name used for testing connection.
- **Retry Attempts:** Specifies the number of attempts the probe tries to repeat the connection if there is a failure.  
Default: 3
- **Retry Delay:** Specifies the time the DB2 Database Monitoring probe waits between the two connection attempts.  
Default: 5
- **Retry Delay (Units):** Specifies the retry delay unit.  
Default: sec
- **Timeout:** Specifies the time before considering a connection failure.  
Default: 0
- **Timeout (Units):** Specifies the timeout unit.  
Default: sec

## Checkpoints Node

The **Checkpoints** node lets you create a checkpoint, which monitors the DB2 Database Monitoring probe. The default checkpoints are visible whereas custom checkpoints are created.

**Navigation:** db2 Node > Checkpoints

Set or modify the following values as required:

### Checkpoint > Options icon > Create New Checkpoint

This section lets you create a checkpoint.

- Query File: Defines the query file name where you want the query to be stored.
- Query: Defines the query for creating the checkpoint.
- Interval Modus: Subtracts the variable value from the value generated at the end of the interval.

Default: Not selected

## <Checkpoint Name> Node

The *checkpoint name* node is used to configure the checkpoint properties of the DB2 Database Monitoring probe.

**Note:** This node is called *checkpoint name* in the document and is user-configurable.

**Navigation:** db2 > Checkpoints > *checkpoint name*

Set or modify the following values as required:

### *checkpoint name* > General

This section lets you configure the general setup properties of the checkpoint of DB2 Database Monitoring probe.

- Condition: Specifies the operator used for threshold evaluation.

Default: > =

- Check Interval: Specifies the default value of the check interval in the checkpoint.
- Check Interval (Units): Specifies the check interval unit.
- Samples: Specifies the number of samples and calculate an average value.  
Default: 1
- Clear Severity: Specifies the severity level of the clear message.  
Default: clear

#### ***checkpoint name* > Checkpoint Config**

This section lets you configure the checkpoint.

- Query File: Defines the query file name where you want the query to be stored.
- Query: Defines the query for creating the checkpoint.
- Interval Modus/Report Per Second Metric: Subtracts the variable value being generated at the beginning of an interval from the value generated at the end of the interval.

**Note:** This section appears only in case of custom checkpoints.

#### ***checkpoint name* > Row Identifier**

This section lets you pick the rows as variables to set an alarm message and suppression key. If the query returns more than one row, the DB2 Database Monitoring probe needs a unique identification for each row.

**Note:** This section appears only for the custom checkpoints.

#### ***checkpoint name* > Message Variable**

This section lets you pick the columns as variables to create an alarm message. You can select the column and variables from a list of all available columns and their possible usage.

**Note:** This section appears only in custom checkpoints.

- Data Type: Specifies the data type of the variable of the new alarm message.
- Column Use: Specifies the column use of the variable.

**Note:** This section appears only in custom checkpoints.

#### ***checkpoint name* > Exclude List**

This section lets you add an exclude pattern, which enables you to define objects that you do not want to monitor on the checkpoint.

**Note:** This section appears only in custom checkpoints.

- Exclude Pattern: Defines a regular expression based on which the exclude functionality works.

## Monitors Node

The **Monitors** node lets you view and define the QoS and thresholds for monitoring the checkpoint.

**Navigation:** db2 > Checkpoints > *checkpoint name* > Monitors

Set or modify the following values as required:

### Monitors > Quality of Service

This section allows you to configure the QoS for the checkpoint.

- Unit: Defines the QoS unit.
- Abbreviation: Defines the QoS abbreviation.
- Max value: Specifies the QoS max value.

### Monitors > Threshold

This section lets you configure threshold values for a checkpoint.

- Threshold Object Name: Defines the name of the threshold object.
- Threshold Value: Defines threshold values of a particular checkpoint.
- Severity: Specifies the level of threshold breach level.
- Message: Specifies the message name used.
- Message Text: Identifies the content of the message issued.

## Connection <Connection Name> Node

The Connection-*connection name* node displays information on the properties of the connection setup.

**Note:** This node is called Connection-*connection name* in the document and is user-configurable.

**Navigation:** db2 > Connection-*connection name*

Set or modify the following values as required:

### Connection-*connection name* > Connection Setup

This section lets you view the properties of the connection setup.

**Note:** The field descriptions are the same as described in **Create New Connection** section in the db2 node.

## <Connection Name> Node

The *connection name* node lets you define and modify the connection setup properties.

**Note:** This node is called *connection name* in the document and is user configurable.

**Navigation:** db2 > Connection-*connection name* > *connection name*

Set or modify the following values as required:

### ***connection name* > Edit Connection**

This section lets you modify the connection setup properties.

**Note:** The field descriptions are the same as described in **Create New Connection** section in the db2 node.

### ***connection name* > Options icon > Create new profile**

This section lets you create a profile, which enables to execute the monitors for a particular connection.

## <Profile Name> Node

The profile name node lets you modify the profile parameters. You can add profile checkpoints that are made static as per profile settings.

**Note:** This node is called *profile name* in the document and is user-configurable.

**Navigation:** db2 > Connection-*connection name* > *profile name*

Set or modify the following values as required:

### *profile name* > Profile

This section allows you to modify the parameters of the profile.

- Heartbeat: Specifies the interval at which all profile checkpoint schedules are tested and trigger an eventual checkpoint execution.

**Note:** This number is a common denominator to all used check interval values. The higher the value the lower is the profile overhead.

Default: 10

- Heartbeat Unit: Specifies the heartbeat unit.

Default: sec

- Connection: Specifies the connection used in the profile.
- Check Interval: Specifies the check interval default value.

Default: 1

- Check Interval (Units): Specifies the check interval unit.

Default: min

- Clear message: Specifies the timeout clear alarm message.
- SQL Timeout: Specifies if the query reaches the SQL timeout, the checkpoint processing is terminated. The next checkpoint is started and an alarm is issued.

Default: 15

- SQL Timeout (Units): Specifies the SQL Timeout unit.

Default: sec

- Message: Specifies the profile timeout alarm message name.
- Profile Timeout: Defines the maximum processing time for all checkpoints in the profile.

Default: 10

- Profile Timeout (units): Specifies the profile timeout unit.

Default: min

- Message: Specifies the profile timeout message.

- **Timeout Severity:** Defines the severity for timeout messages.  
Default: major
- **Alarm Source:** Defines the custom alarm source.

## Configure a Node

This procedure provides the information to configure a section within a node. Each section within a node enables you to configure the properties of the DB2 Database Monitoring probe for monitoring the response of user-defined queries.

**Follow these steps:**

1. Navigate to the section within a node that you want to configure.
2. Update the field information and click **Save**.

The specified section of the DB2 Database Monitoring probe is configured.

## Create Connection

You can configure the probe to create a connection.

**Follow these steps:**

1. Click the **Options** icon next to the **db2** node in the navigation pane.
2. Click **Create new connection**.
3. Update the field information and click **Submit**.

The new connection is saved under the **Connections** node in the navigation pane.

## Delete Connection

You can delete a database connection when you do not want the DB2 Database Monitoring probe to monitor it.

**Follow these steps:**

1. Click the **Options** icon beside the Connection-*connection name* node that you want to delete.
2. Click **Delete connection** then click **Save**.

The connection is deleted.

**Note:** You can delete a profile at the profile level also.

## Add Checkpoint

You can configure the DB2 Database Monitoring probe to add a checkpoint.

**Follow these steps:**

1. Click the **Options** icon next to the **Checkpoints** node in the navigation pane.
2. Click the **Add New Checkpoint** option.
3. Update the field information and click **Submit**.

The new checkpoint is saved under the **Checkpoints** node in the navigation pane.

## Delete Checkpoint

You can delete a custom checkpoint when you no longer need it.

**Follow these steps:**

1. Select the custom checkpoint that you want to delete in the navigation pane.
2. Click the **Options** icon next to the *checkpoint name* node in the navigation pane.
3. Click the **Delete Checkpoint** option.

The checkpoint is deleted from the navigation pane.

## Add Row Identifier

You can add a row identifier for the DB2 Database Monitoring probe. The row identifier uniquely identifies the alarms that are a part of the suppression key.

**Note:** You can add a row identifier for custom checkpoints.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane.
2. Go to the **Row Identifier** section and then click **New**.
3. Update the field information and click **Save**.

The row identifier is added.

## Delete Row Identifier

You can delete a row identifier in the DB2 Database Monitoring probe when you no longer need it.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane.
2. Go to the **Row Identifier** section and then select the row identifier that you want to delete.
3. Click **Delete** and then click **Save**.

The row identifier is deleted.

## Add Message Variable

You can add message variables, define their usage, and format in the DB2 Database Monitoring probe.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane.
2. Go to the **Variable** section and then click **New**.
3. Update the field information and click **Save**.

The variable is added.

**Note:** You can add a variable only for the custom checkpoints.

## Delete Message Variable

You can delete message variables when you no longer need them in a custom checkpoint.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane.
2. Go to the **Variable** section and then select the variable you want to delete.
3. Click **Delete** and then click **Save**.

The variable is deleted.

**Note:** You can delete a message variable only for custom checkpoints.

## Add Threshold

You can add a threshold to the checkpoint that defines the performance criteria to raise an alarm on breaching the threshold value.

**Follow these steps:**

1. Click the **Monitors** node in the navigation pane.
2. Go to the **Threshold** section and then click **New**.
3. Update the field information and click **Save**.

The threshold is added.

## Delete Threshold

You can delete a threshold from the checkpoint when you no longer need it.

**Follow these steps:**

1. Click the **Monitors** node in the navigation pane.
2. Go to the **Threshold** section and then select the threshold you want to delete.
3. Click **Delete** and then click **Save**.

The selected threshold is deleted.

## Add QoS

You can add a QoS definition in the DB2 Database Monitoring probe for a checkpoint.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane for which you want to add a QoS.
2. Click the **Monitors** node and then click **New** in the **Quality of Service** section.
3. Enter the field information and click **Save**.

The QoS is added for that checkpoint.

## Delete QoS

You can delete a QoS definition for a checkpoint in the DB2 Database Monitoring probe when you no longer need it.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane for which you want to delete a QoS.
2. Click the **Monitors** node and then select the QoS you want to delete.
3. Click **Delete** and then click **Save**.

The QoS is deleted for that checkpoint.

## Add Exclude Pattern

You can add an exclude pattern in the DB2 Database Monitoring probe. The exclude pattern allows you to define objects that you do not want to monitor on the checkpoint.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane.
2. Select **Use Exclude** in the **General Config** section.
3. Go to the **Exclude** section and then click **New**.
4. Enter a regular expression in the **Exclude Pattern** field.
5. Click **Test** in the **Action** drop-down list.

Response dialog opens displaying the objects that are excluded.

**Note:** This test is possible only for running active profiles and checkpoints that you do not want to monitor on the checkpoint.

6. Click **Save**.

The exclude pattern is added.

## Delete Exclude Pattern

You can delete an exclude pattern in the DB2 Database Monitoring probe when you no longer need it.

**Follow these steps:**

1. Click the *checkpoints name* node in the navigation pane.
2. Go to the **Exclude** section and then select the exclude pattern that you want to delete.
3. Click **Delete** and then click **Save**.

The exclude pattern is deleted.

## Manage Profiles

You can configure the DB2 Database Monitoring probe to create a profile on various checkpoints for monitoring the DB2 connection. You can then configure the profile to send the QoS messages and generate alarms on response time.

**Follow these steps:**

1. Click the **Options** icon next to the *connection name* node in the navigation pane.
2. Click the **Create new profile** option.
3. Update the field information and click **Submit**.

The profile is saved and you can configure the profile properties for monitoring the DB2 connection.

## Delete Profile

You can delete an existing profile when you no longer want the DB2 Database Monitoring probe to monitor.

**Follow these steps:**

1. Click the **Options** icon beside the *profile name* node that you want to delete.
2. Click the **Delete Profile** option.

The profile is deleted.

## Add Profile Checkpoint

The **Add Profile Checkpoint** option lets you add a checkpoint to the monitoring profile at profile level and probe level of the DB2 Database Monitoring probe.

**Follow these steps:**

1. Click the **Options** icon beside the *profile name* node for which you want to add a checkpoint.
2. Click **Add profile checkpoints**.
3. Select the checkpoints to be added and click **Submit**.

The profile checkpoint is added.

## Delete Profile Checkpoint

You can delete a profile checkpoint in the DB2 Database Monitoring probe when you no longer need it.

**Note:** You can delete both default and custom checkpoints a profile level and only custom checkpoints at probe level.

**Follow these steps:**

1. Click the **Options** icon beside the checkpoint you want to delete.
2. Click **Delete checkpoint** and then click **Save**.

The selected profile checkpoint is deleted.



# Chapter 3: QoS Threshold Metrics

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CA UIM probes ship with default QoS threshold values set. The default threshold values provide an idea of the type of values to be entered in the fields and are not necessarily recommended best practice values. To aid in tuning thresholds and reducing false-positive alarms, this section describes the QoS metrics and provides the default QoS thresholds.

This section contains the following topics:

[db2 QoS Metrics](#) (see page 27)

[db2 Alert Metrics Default Settings](#) (see page 32)

## db2 QoS Metrics

The following table describes the QoS metrics that can be configured using the db2 probe.

Monitor Name	Units	Description
QOS_DB2_ACTIVE_CONNECTIONS_PERCENTAGE		Active connections percentage
QOS_DB2_ACTIVE_SORTS	count	Database Active Sorts
QOS_DB2_AGENTS_CREATED_EMPTY_POOL	count	Agents Created Empty Pool
QOS_DB2_AGENTS_CREATED_RATIO	pct	Agents Created Ratio
QOS_DB2_AGENTS_FROM_POOL	count	Agents from Pool
QOS_DB2_AGENTS_REGISTERED	count	Agents curr. Registered
QOS_DB2_AGENTS_REGISTERED_TOP	count	Agents Registered Top
QOS_DB2_AGENTS_STOLEN	count	Agents Stolen
QOS_DB2_AGENTS_TOP	count	Database Agents Top
QOS_DB2_AGENTS_WAITING_ON_TOKEN	count	Agents Waiting on Token
QOS_DB2_AGENTS_WAITING_TOP	count	Agents Waiting Top
QOS_DB2_APPL_SECTION_INSERTS	count	Database SQL Section Inserts
QOS_DB2_APPL_SECTION_LOOKUPS	count	Database SQL Section Lookups

Monitor Name	Units	Description
QOS_DB2_APPLS_CUR_CONS	count	Database Connected
QOS_DB2_APPLS_IN_DB2	count	Database Active Connections
QOS_DB2_AVG_DIRECT_READ_TIME	ms	Average Direct Read Time
QOS_DB2_AVG_DIRECT_WRITE_TIME	ms	Average Direct Write Time
QOS_DB2_AVG_SORT_HEAP	count	Database Average Sort Heap
QOS_DB2_AVG_SORT_TIME	sec	Database Average Sort Time
QOS_DB2_BINDS_PRECOMPILES	count	Database Binds/Precompiles
QOS_DB2_CAT_CACHE_HEAP_FULL	count	Database Catalog Cache Overflows Full Heap
QOS_DB2_CAT_CACHE_HIT_RTO	pct	Database Catalog Cache Hit Ratio
QOS_DB2_CAT_CACHE_INSERTS	count	Database Catalog Cache Inserts
QOS_DB2_CAT_CACHE_LOOKUPS	count	Database Catalog Cache Lookups
QOS_DB2_CAT_CACHE_OVERFLOWS	count	Database Catalog Cache Overflows
QOS_DB2_CHECK_DBALIVE	Availability	DB2 Instance Availability
QOS_DB2_COMM_PRIVATE_MEM	Byte	Comitted Private Memory
QOS_DB2_COMMIT_SQL_STMTS	count	Database Commits
QOS_DB2_CON_LOCAL_DBASES	count	Databases with Connections
QOS_DB2_CONNECTIONS_TOP	count	Database Connections Top
QOS_DB2_COORD_AGENTS_TOP	count	Coordinating Agents Top
QOS_DB2_DB_CONNECT_TIME	seconds	Database Connection Time
QOS_DB2_DB_HEAP_TOP	Bytes	Database Memory Usage
QOS_DB2_DB_LOG_UTIL_RTO	pct	Database Log Utilization
QOS_DB2_DB_STATUS	status	Database Status
QOS_DB2_DDL_SQL_STMTS	count	Database DDL SQL
QOS_DB2_DEADLOCKS	count	Database Deadlocks
QOS_DB2_DIRECT_READ_REQS	count	Direct Read Requests
QOS_DB2_DIRECT_READ_TIME	ms	Direct Read Time
QOS_DB2_DIRECT_READS	count	Direct Reads
QOS_DB2_DIRECT_WRITE_REQS	count	Direct Write Requests
QOS_DB2_DIRECT_WRITE_TIME	ms	Direct Write Time

Monitor Name	Units	Description
QOS_DB2_DIRECT_WRITES	count	Direct Writes
QOS_DB2_DYNAMIC_SQL_STMTS	count	Database Dynamic SQL
QOS_DB2_FAILED_SQL_STMTS	count	Database Failed SQL
QOS_DB2_FILES_CLOSED	count	Bufferpool File Close
QOS_DB2_FREE_PAGES	count	Tablespace Free Pages
QOS_DB2_FREE_PAGES_PCT	pct	Tablespace Pct. Free Pages
QOS_DB2_GW_CONS_WAIT_CLIENT	count	Connections Waiting on Client
QOS_DB2_GW_CONS_WAIT_HOST	count	Connections Waiting on Host
QOS_DB2_GW_CUR_CONS	count	Gateway Current Connections
QOS_DB2_GW_TOTAL_CONS	count	Gateway Connection Attempts
QOS_DB2_HASH_JOIN_OVERFLOWS	count	Database Hash Join Overflows
QOS_DB2_HASH_JOIN_SMALL_OVERFLOWS	count	Database Hash Join Small Overflows
QOS_DB2_IDLE_AGENTS	count	Unassigned Agents
QOS_DB2_INT_AUTO_REBINDS	count	Database Auto Rebinds
QOS_DB2_INT_COMMITS	count	Database Internal Commits
QOS_DB2_INT_DEADLOCK_ROLLBACKS	count	Database Internal Deadlock Rollbacks
QOS_DB2_INT_ROLLBACKS	count	Database Internal Rollbacks
QOS_DB2_INT_ROWS_DELETED	count	Database Internal Deletes
QOS_DB2_INT_ROWS_INSERTED	count	Database Internal Inserts
QOS_DB2_INT_ROWS_UPDATED	count	Database Internal Updates
QOS_DB2_LOCAL_CONS	count	Current Local Connections
QOS_DB2_LOCAL_CONS_IN_EXEC	count	Current Local Connections Executing
QOS_DB2_LOCK_ESCALS	count	Database Lock Escalations
QOS_DB2_LOCK_LIST_IN_USE	Bytes	Database Lock List Use
QOS_DB2_LOCK_TIMEOUTS	count	Database Locks Waiting
QOS_DB2_LOCK_WAIT_TIME	ms	Database Lock Wait Time
QOS_DB2_LOCK_WAITS	count	Database Lock Waits
QOS_DB2_LOCKS_HELD	count	Database Locks Held
QOS_DB2_LOCKS_WAITING	count	Database Locks Waiting
QOS_DB2_LOG_READS	count	Database Log Pages Read

Monitor Name	Units	Description
QOS_DB2_LOG_WRITES	count	Database Log Pages Written
QOS_DB2_MAX_AGENT_OVERFLOW	count	MAXAGENT Overflows
QOS_DB2_MAX_USED_PAGES	count	Tablespace Max Used Pages
QOS_DB2_MAX_USED_PAGES_PCT	pct	Tablespace Pct. Max Used Pages
QOS_DB2_NEW_CHECKPOINT_12345	M	Test checkpoint
QOS_DB2_NUM_ASSOC_AGENTS	count	Database Agents
QOS_DB2_PCT_HJ_S_OVERFLOW	pct	Database Hash Join Small Overflows
QOS_DB2_PCT_SORT_OVERFLOW	pct	Database Sort Overflows
QOS_DB2_PIPED_SORTS_ACCEPTED	count	Piped Sorts Accepted
QOS_DB2_PIPED_SORTS_REJECTED	count	Piped Sorts Rejected
QOS_DB2_PIPED_SORTS_REQUESTED	count	Piped Sorts Requested
QOS_DB2_PKG_CACHE_INSERTS	count	Database Package Cache Inserts
QOS_DB2_PKG_CACHE_LOOKUPS	count	Database Package Cache Lookups
QOS_DB2_POOL_ASYNC_DATA_READ_REQS	count	Bufferpool Async. Read Requests
QOS_DB2_POOL_ASYNC_DATA_READS	count	Bufferpool Async. Page Reads
QOS_DB2_POOL_ASYNC_DATA_WRITES	count	Bufferpool Async. Data Writes
QOS_DB2_POOL_ASYNC_INDEX_READS	count	Bufferpool Async. Index Reads
QOS_DB2_POOL_ASYNC_INDEX_WRITES	count	Bufferpool Async. Index Writes
QOS_DB2_POOL_ASYNC_READ_TIME	ms	Bufferpool Async. Read Time
QOS_DB2_POOL_ASYNC_WRITE_TIME	ms	Bufferpool Async. Write Time
QOS_DB2_POOL_AVG_ASYNC_READ_TIME	ms	Bufferpool Avg. Async. Read Time
QOS_DB2_POOL_AVG_ASYNC_WRITE_TIME	ms	Bufferpool Avg. Async. Write Time
QOS_DB2_POOL_AVG_WRITE_TIME	ms	Bufferpool Avg. Write Time
QOS_DB2_POOL_DATA_FROM_ESTORE	count	Bufferpool Data Pages from Estore
QOS_DB2_POOL_DATA_L_READS	count	Bufferpool Logical Reads
QOS_DB2_POOL_DATA_P_READS	count	Bufferpool Physical Reads
QOS_DB2_POOL_DATA_TO_ESTORE	count	Bufferpool Data Pages to Estore
QOS_DB2_POOL_DATA_WRITES	count	Bufferpool Physical Writes
QOS_DB2_POOL_DRTY_PG_STEAL_CLNS	count	Database Dirty Page Cleans
QOS_DB2_POOL_DRTY_PG_THRSH_CLNS	count	Database Dirty Page Thd. Reached

Monitor Name	Units	Description
QOS_DB2_POOL_HIT_RATIO	pct	Bufferpool Hit Ratio
QOS_DB2_POOL_INDEX_FROM_ESTORE	count	Bufferpool Index Pages from Estore
QOS_DB2_POOL_INDEX_L_READS	count	Bufferpool Logical Index Reads
QOS_DB2_POOL_INDEX_P_READS	count	Bufferpool Physical Index Reads
QOS_DB2_POOL_INDEX_TO_ESTORE	count	Bufferpool Index Pages to Estore
QOS_DB2_POOL_INDEX_WRITES	count	Bufferpool Index Writes
QOS_DB2_POOL_LSN_GAP_CLNS	count	Database Log Space Cleans
QOS_DB2_POOL_READ_TIME	ms	Bufferpool Total Read Time
QOS_DB2_POOL_SYNC_IDX_READS	count	Bufferpool Sync. Index Reads
QOS_DB2_POOL_SYNC_IDX_WRITES	count	Bufferpool Synchronous Index Writes
QOS_DB2_POOL_SYNC_READS	count	Bufferpool Synchronous Reads
QOS_DB2_POOL_SYNC_WRITE_TIME	ms	Bufferpool Sync. Write Time
QOS_DB2_POOL_SYNC_WRITES	count	Bufferpool Sync. Writes
QOS_DB2_POOL_WRITE_TIME	ms	Bufferpool Physical Write Time
QOS_DB2_POST_THRESHOLD_HASH_JOINS	count	Post Treshold Hash Joins
QOS_DB2_POST_THRESHOLD_SORTS	count	Post Threshold Sorts
QOS_DB2_PREFETCH_WAIT_TIME	ms	Database Prefetch Wait Time
QOS_DB2_REM_CONS_IN	count	Current Remote Connections
QOS_DB2_REM_CONS_IN_EXEC	count	Current Remote Connections Executing
QOS_DB2_ROLLBACK_SQL_STMTS	count	Database Rollbacks
QOS_DB2_ROWS_DELETED	count	Database Rows Deleted
QOS_DB2_ROWS_INSERTED	count	Database Rows Inserted
QOS_DB2_ROWS_SELECTED	count	Database Rows Selected
QOS_DB2_ROWS_UPDATED	count	Database Rows Updated
QOS_DB2_SEC_LOG_USED_TOP	Bytes	Database Secondary Logspace Top
QOS_DB2_SEC_LOGS_ALLOCATED	count	Database Secondary Logs
QOS_DB2_SELECT_SQL_STMTS	count	Database Select SQL
QOS_DB2_SINCE_LAST_BACKUP	hours	Hours Since Last Backup
QOS_DB2_SORT_HEAP_ALLOCATED	count	Sort Heap Allocated
QOS_DB2_SORT_OVERFLOWS	count	Database Sort Overflows

Monitor Name	Units	Description
QOS_DB2_STATIC_SQL_STMTS	count	Database Static SQL
QOS_DB2_TOT_LOG_USED_TOP	Bytes	Database Total Logspace Top
QOS_DB2_TOTAL_CONS	count	Database Connects
QOS_DB2_TOTAL_HASH_JOINS	count	Database Hash Joins
QOS_DB2_TOTAL_HASH_LOOPS	count	Database Hash Loops
QOS_DB2_TOTAL_PAGES	count	Tablespace Total Pages
QOS_DB2_TOTAL_SEC_CONS	count	Database Secondary Connections
QOS_DB2_TOTAL_SORT_TIME	ms	Database Total Sort Time
QOS_DB2_TOTAL_SORTS	count	Database Total Sorts
QOS_DB2_TS_DATA_PARTITIONING	pct	Data partitioning free percent
QOS_DB2_TS_STATUS	status	Tablespace Status
QOS_DB2_UID_SQL_STMTS	count	Database UID SQL
QOS_DB2_USABLE_PAGES	count	Tablespace Total Pages
QOS_DB2_USABLE_PAGES_PCT	pct	Tablespace Pct. Usable Pages
QOS_DB2_USED_PAGES	count	Tablespace Used Pages
QOS_DB2_USED_PAGES_PCT	pct	Tablespace Pct. Used Pages
QOS_DB2_X_LOCK_ESCALS	count	Database X-Lock Escalations

## db2 Alert Metrics Default Settings

This section contains the QoS metric default settings for the db2 probe.

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_acc_curs_blk	500	Warning	-	-	Monitors the number of times that a request for an I/O block was accepted
app_agents_stolen	500	Warning	-	-	Monitors the number of agents stolen from application in a specified interval

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_appl_idle_time	60	Warning	-	-	Monitors the number of seconds since an application has issued any requests to the server
app_asoc_agents_top	500	Warning	-	-	Monitors the maximum number of subagents associated with this application
app_avrg_direct_read_time	500	Warning	-	-	Monitors the average time for direct read in ms
app_avrg_direct_write_time	500	Warning	-	-	Monitors the average time for direct write in ms
app_avrg_sort_time	500	Warning	-	-	Monitors the average sort time in interval in ms
app_binds_precompiles	500	Warning	-	-	Monitors number of binds precompiles
app_cat_cache_heap_full	500	Warning	-	-	Monitors the number of overflows due to db heap full
app_cat_cache_hit_rto	75	Warning	-	-	Monitors the percentage of time, table descriptor was found in catalog cache
app_cat_cache_inserts	500	Warning	-	-	Monitors the number of table descriptors inserted
app_cat_cache_lookups	500	Warning	-	-	Monitors the number of table descriptor lookups
app_cat_cache_overflows	500	Warning	-	-	Monitors the number of catalog cache overflows
app_commit_sql_stmts	500	Warning	-	-	Monitors the number of commit SQL statements
app_ddl_sql_stmts	500	Warning	-	-	Monitors the number of DDL SQL statements
app_deadlocks	1	Warning	-	-	Monitors the number of deadlocks that have occurred
app_direct_read_reqs	500	Warning	-	-	Monitors direct read requests
app_direct_read_time	500	Warning	-	-	Monitors direct read time

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_direct_reads	500	Warning	-	-	Monitors direct reads
app_direct_write_reqs	500	Warning	-	-	Monitors direct write requests
app_direct_write_time	500	Warning	-	-	Monitors direct write time
app_direct_writes	500	Warning	-	-	Monitors direct writes
app_dynamic_sql_stmts	500	Warning	-	-	Monitors the number of dynamic SQL statements
app_failed_sql_stmts	500	Warning	-	-	Monitors the number of failed SQL statements
app_hash_join_overflows	500	Warning	-	-	Monitors the number of times hash join data exceeded available space
app_hash_join_small_overflows	500	Warning	-	-	Monitors the number of times hash join data exceeded available space by less than 10%
app_int_auto_rebinds	500	Warning	-	-	Monitors the number of automatic rebinds (or recompiles) that have been attempted
app_int_commits	500	Warning	-	-	Monitors the number of internal commits
app_int_deadlock_rollbacks	500	Warning	-	-	Monitors the number of internal deadlock rollbacks
app_int_rollbacks	500	Warning	-	-	Monitors the number of internal rollbacks
app_int_rows_deleted	500	Warning	-	-	Monitors the number of internal rows deleted
app_int_rows_inserted	500	Warning	-	-	Monitors the number of internal inserts
app_int_rows_updated	500	Warning	-	-	Monitors the number of internal rows updated
app_lock_escals	1	Warning	-	-	Monitors the number of times that the locks have been escalated from several row locks to a table lock

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_lock_timeouts	500	Warning	-	-	Monitors the number of timeouts
app_lock_wait_time	1000	Warning	-	-	Monitors the total elapsed time waited for a lock in ms
app_lock_waits	90	Warning	-	-	Monitors the number of times that application waited for locks
app_locklist_util	50	Warning	-	-	Monitors the locklist utilization by application in percent
app_locks_held	100	Warning	-	-	Monitors the number of locks currently held
app_num_agents	500	Warning	-	-	Monitors the number of concurrent agents currently executing a statement or subsection
app_num_asoc_agents	500	Warning	-	-	Monitors the number of agents associated with the application
app_open_loc_curs	500	Warning	-	-	Monitors the number of local cursors currently open for this application
app_open_loc_curs_blk	500	Warning	-	-	Monitors the number of local blocking cursors currently open for this application
app_open_rem_curs	500	Warning	-	-	Monitors the number of remote cursors currently open for this application
app_open_rem_curs_blk	500	Warning	-	-	Monitors the number of remote blocking cursors currently open for this application
app_pct_sort_overflows	25	Warning	-	-	Monitors the percentage of sort overflows per interval

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_pkg_cache_hit_rto	75	Warning	-	-	Monitors the percentage of time package section was found in package cache
app_pkg_cache_inserts	500	Warning	-	-	Monitors the number of sections inserted into cache
app_pkg_cache_lookups	500	Warning	-	-	Monitors the number of section lookups
app_pool_data_l_reads	500	Warning	-	-	Monitors the number of logical read requests
app_pool_data_p_reads	500	Warning	-	-	Monitors the number of reads, requiring physical I/O
app_pool_data_writes	500	Warning	-	-	Monitors the number of times, data was physically written to disk
app_pool_hit_ratio	85	Warning	-	-	Monitors the percentage of time a page was found in buffer pool on application request
app_pool_index_l_reads	500	Warning	-	-	Monitors the number of logical read req. for index pages
app_pool_index_p_reads	500	Warning	-	-	Monitors the number of req. for index page req. physical I/O
app_pool_index_writes	500	Warning	-	-	Monitors the number of times, index page was written to disk
app_pool_read_time	500	Warning	-	-	Monitors the total el.time for ph. read of data/ix. pages in ms
app_pool_write_time	500	Warning	-	-	Monitors the total el.time for ph. write of data/ix. pages in ms

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_rej_curs_blk	500	Warning	-	-	Monitors the number of times that a request for an I/O block at server was rejected
app_rollback_sql_stmts	500	Warning	-	-	Monitors the number of rollback SQL statements
app_rows_deleted	500	Warning	-	-	Monitors the number of rows deleted
app_rows_inserted	500	Warning	-	-	Monitors the number of rows inserted
app_rows_read	500	Warning	-	-	Monitors the number of rows read
app_rows_selected	500	Warning	-	-	Monitors the number of rows selected
app_rows_updated	500	Warning	-	-	Monitors the number of rows updated
app_rows_written	500	Warning	-	-	Monitors the number of rows written
app_select_sql_stmts	500	Warning	-	-	Monitors the number of select SQL statements
app_sort_overflows	50	Warning	-	-	Monitors the total number of sorts that ran out of sort heap
app_static_sql_stmts	500	Warning	-	-	Monitors the number of static SQL statements
app_sys_cpu_time	500	Warning	-	-	Monitors the total system CPU time (in seconds) used by database manager agent process
app_total_hash_joins	500	Warning	-	-	Monitors the number of # joins executed in interval
app_total_hash_loops	500	Warning	-	-	Monitors the number of # joins executed in interval
app_total_sort_time	50	Warning	-	-	Monitors the total elapsed time (in ms) for all sorts that have been executed

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
app_total_sorts	1	Warning	-	-	Monitors the total number of sorts that have been executed
app_uid_sql_stmts	500	Warning	-	-	Monitors the number of UID SQL statements
app_uow_elapsed_time	500	Warning	-	-	Monitors the elapsed execution time of the most recently completed UOW
app_uow_lock_wait_time	500	Warning	-	-	Monitors the total amount of elapsed time this unit of work has spent waiting for locks in ms
app_uow_log_space_used	500	Warning	-	-	Monitors the amount of log space (in bytes) used in the current UOW
app_usr_cpu_time	500	Warning	-	-	Monitors the total user CPU time (in seconds) used by database manager agent process
app_x_lock_escals	1	Warning	-	-	Monitors the number of times that (x) locks have been escalated from several row locks to one exclusive table lock
bp_avg_direct_read_time	65	Warning	-	-	Monitors the average time for direct read in ms in interval
bp_avg_direct_write_time	65	Warning	-	-	Monitors the average time for direct write in ms in interval
bp_direct_read_reqs	85	Warning	-	-	Monitors the number of direct read requests
bp_direct_read_time	85	Warning	-	-	Monitors the direct read time
bp_direct_reads	85	Warning	-	-	Monitors the number of direct reads
bp_direct_write_reqs	85	Warning	-	-	Monitors the number of direct write requests

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
bp_direct_write_time	85	Warning	-	-	Monitors the direct write time
bp_direct_writes	85	Warning	-	-	Monitors the number of direct writes
bp_files_closed	85	Warning	-	-	Monitors the number of file close operations
bp_pool_async_data_read_reqs	85	Warning	-	-	Monitors the number of asynchronous read requests
bp_pool_async_data_reads	85	Warning	-	-	Monitors the number of pages read asynchronously into the bufferpool
bp_pool_async_data_writes	85	Warning	-	-	Monitors the number of pages written asynchronously into the bufferpool
bp_pool_async_index_reads	85	Warning	-	-	Monitors the number of asynchronous index reads
bp_pool_async_index_writes	85	Warning	-	-	Monitors the number of index pages written asynchronously into the bufferpool
bp_pool_async_read_time	85	Warning	-	-	Monitors the elapsed time spent reading by prefetcher
bp_pool_async_write_time	85	Warning	-	-	Monitors the elapsed time spent asynchronously writing
bp_pool_avg_async_read_time	15	Warning	-	-	Monitors the average asynchronous read time in ms in interval
bp_pool_avg_async_write_time	25	Warning	-	-	Monitors the average asynchronous write time in ms in interval
bp_pool_avg_write_time	65	Warning	-	-	Monitors the average asynchronous write time in ms in interval

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
bp_pool_data_from_estore	85	Warning	-	-	Monitors the number of data pages copied from extended storage
bp_pool_data_l_reads	100000	Warning	-	-	Monitors the number of logical read requests in interval
bp_pool_data_p_reads	85	Warning	-	-	Monitors the number of physical read requests in interval
bp_pool_data_to_estore	85	Warning	-	-	Monitors the number of data pages copied to extended storage
bp_pool_data_writes	85	Warning	-	-	Monitors the number physical write requests in interval
bp_pool_hit_ratio	85	Warning	-	-	Monitors the percentage of time a page was found in buffer pool
bp_pool_index_from_estore	85	Warning	-	-	Monitors the number of index pages copied from extended storage
bp_pool_index_l_reads	85	Warning	-	-	Monitors the number of logical read requests for index pages in interval
bp_pool_index_p_reads	85	Warning	-	-	Monitors the number of physical read requests for index pages in interval
bp_pool_index_to_estore	85	Warning	-	-	Monitor the number of of index pages copied to extended storage
bp_pool_index_writes	85	Warning	-	-	Monitors the number of write requests for index pages in interval
bp_pool_read_time	10	Warning	-	-	Monitors the total elapsed time for physical read of data/index pages
bp_pool_sync_idx_reads	65	Warning	-	-	Monitors the number of synchronous index page reads in interval

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
bp_pool_sync_idx_writes	65	Warning	-	-	Monitors the number of synchronous index page writes in interval
bp_pool_sync_reads	65	Warning	-	-	Monitors the number of synchronous data reads in interval
bp_pool_sync_write_time	65	Warning	-	-	Monitors the synchronous write time in ms in interval
bp_pool_sync_writes	65	Warning	-	-	Monitors the number of synchronous data writes in interval
bp_pool_write_time	85	Warning	-	-	Monitors the elapsed time for physical write of data/index pages
db_active_sorts	800	Warning	-	-	Monitors # number of sorts currently having heap allocated
db_agents_top	5	Warning	-	-	Monitors the max # number of agents associated at once with the database
db_appl_section_inserts	5	Warning	-	-	Monitors the # number of inserts due SQL section not found
db_appl_section_lookups	5	Warning	-	-	Monitors the # number of references to SQL work area
db_appls_cur_cons	25	Warning	-	-	Monitors the number of applications currently connected
db_appls_in_db2	25	Warning	-	-	Monitors the number of applications currently connected
db_avg_direct_read_time	15	Warning	-	-	Monitors the average time for direct read in ms
db_avg_direct_write_time	25	Warning	-	-	Monitors the average time for direct write in ms

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_avg_sort_heap	100	Warning	-	-	Monitors the average number of pages allocated to sort heap in interval
db_avg_sort_time	10	Warning	-	-	Monitors the average sort time in interval in sec
db_binds_precompiles	25	Warning	-	-	Monitors the number of binds/precompiles
db_cat_cache_heap_full	25	Warning	-	-	Monitors the number of overflows due to database heap full
db_cat_cache_hit_rto	50	Warning	-	-	Monitors the percent of times, information was found in catalog cache
db_cat_cache_inserts	25	Warning	-	-	Monitors the number of catalog cache inserts
db_cat_cache_lookups	25	Warning	-	-	Monitors the number of catalog cache lookups
db_cat_cache_overflows	25	Warning	-	-	Monitors the number of catalog cache overflows
db_commit_sql_stmts	25	Warning	-	-	Monitors the number of commit SQL statements
db_connect_time	0.1	Warning	-	-	Monitors the database connection time in seconds
db_connections_top	25	Warning	-	-	Monitors the maximum number of connections
db_coord_agents_top	5	Warning	-	-	Monitors the max # number of coordinating agents
db_ddl_sql_stmts	25	Warning	-	-	Monitors the number of DDL SQL statements
db_deadlocks	1	Warning	-	-	Monitors the # number of deadlocks occurred in interval
db_direct_read_reqs	25	Warning	-	-	Monitors the number of direct read requests
db_direct_read_time	25	Warning	-	-	Monitors direct read time

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_direct_reads	25	Warning	-	-	Monitors the number of direct reads
db_direct_write_reqs	25	Warning	-	-	Monitors the number of direct write requests
db_direct_write_time	25	Warning	-	-	Monitors direct write time
db_direct_writes	25	Warning	-	-	Monitors the number of direct writes
db_dynamic_sql_stmts	25	Warning	-	-	Monitors the number of rollback SQL statements
db_failed_sql_stmts	25	Warning	-	-	Monitors the number of failed SQL statements
db_files_closed	3	Warning	-	-	Monitors the number of file-close operations
db_hash_join_overflows	1	Warning	-	-	Monitors the # number of times hash join data exceeded the available sort heap space
db_hash_join_small_overflows	1	Warning	-	-	Monitors the # of times hash join data exceeded the available sort heap space by less than 10%
db_heap_top	100000	Warning	-	-	Monitors the maximum database memory usage (in bytes)
db_int_auto_rebinds	25	Warning	-	-	Monitors the number of auto rebinds
db_int_commits	25	Warning	-	-	Monitors the number of internal commits
db_int_deadlock_rollbacks	25	Warning	-	-	Monitors the number of rollbacks due to deadlock
db_int_rollbacks	25	Warning	-	-	Monitors number of internal rollbacks
db_int_rows_deleted	25	Warning	-	-	Monitors the number of internal deletes
db_int_rows_inserted	25	Warning	-	-	Monitors the number of internal inserts

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_int_rows_updated	25	Warning	-	-	Monitors the number of internal updates
db_lock_escals	1	Warning	-	-	Monitors the # number of lock escalations (row->table)
db_lock_list_in_use	124000	Warning	-	-	Monitors the total lock list memory in use (bytes)
db_lock_timeouts	1	Warning	-	-	Monitors the # number of timeouts in interval
db_lock_wait_time	1	Warning	-	-	Monitors the total time of database waited on locks in ms
db_lock_waits	1	Warning	-	-	Monitors the # number of times application or connection waited for a lock
db_locks_held	80	Warning	-	-	Monitors the # number of locks currently held
db_locks_waiting	1	Warning	-	-	Monitors number of agents currently waiting on lock
db_logs_read	25	Warning	-	-	Monitors the number of log pages read
db_log_util_rto	25	Warning	-	-	Monitors the database log utilization
db_log_writes	25	Warning	-	-	Monitors the number of log pages written
db_num_assoc_agents	5	Warning	-	-	Monitors the current number of agents associated with the database
db_pct_hjs_overflows	10	Warning	-	-	Monitors the percentage of hash join small overflows
db_pct_sort_overflows	10	Warning	-	-	Monitors % of sort overflows in interval

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_pkg_cache_inserts	25	Warning	-	-	Monitors the number of sections inserted into cache
db_pkg_cache_lookups	25	Warning	-	-	Monitors the number of package or section lookups
db_pool_async_data_read_reqs	100	Warning	-	-	Monitors the number of asynchronous read requests
db_pool_async_data_reads	100	Warning	-	-	Monitors the number of pages read asynchronously into the buffer pool
db_pool_async_data_writes	100	Warning	-	-	Monitors the number of data pages asynchronously written to disk
db_pool_async_index_reads	3	Warning	-	-	Monitors the number of times index was asynchronously read
db_pool_async_index_writes	100	Warning	-	-	Monitors the number of index pages asynchronously written to disk
db_pool_async_read_time	100	Warning	-	-	Monitors the total elapsed time spent reading by prefetcher
db_pool_async_write_time	100	Warning	-	-	Monitors the total elapsed time spent asynchronously writing
db_pool_avg_async_read_time	15	Warning	-	-	Monitors the average asynchronous read time in ms in interval
db_pool_avg_async_write_time	25	Warning	-	-	Monitors the average asynchronous write time in ms in interval
db_pool_avg_write_time	25	Warning	-	-	Monitors the average write time in ms in interval
db_pool_data_from_estore	100	Warning	-	-	Monitors the number of data pages copied from extended sot

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_pool_data_l_reads	10	Warning	-	-	Monitors the number of logical read requests
db_pool_data_p_reads	10	Warning	-	-	Monitors the number of reads, requiring physical I/O
db_pool_data_to_estore	3	Warning	-	-	Monitors the number of data pages copied to extended storage
db_pool_data_writes	10	Warning	-	-	Monitors the number of times, data was physically written to disk
db_pool_drty_pg_steal_clns	100	Warning	-	-	Monitors the number of times victim page cleaner was triggered
db_pool_drty_pg_thrsh_clns	100	Warning	-	-	Monitors the number of times dirty page threshold reached
db_pool_hit_ratio	75	Warning	-	-	Monitors the percentage of time a page was found in buffer pool
db_pool_index_from_estore	3	Warning	-	-	Monitors the number of index pages copied from extended storage
db_pool_index_l_reads	10	Warning	-	-	Monitors number of logical read requests for index pages
db_pool_index_p_reads	10	Warning	-	-	Monitors the number of index reads, page requiring physical I/O
db_pool_index_to_estore	3	Warning	-	-	Monitors the number of index pages copied to extended storage
db_pool_index_writes	10	Warning	-	-	Monitors the number of times, index page was written to disk
db_pool_lsn_gap_clns	100	Warning	-	-	Monitors the number of times logging space used reached threshold

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_pool_read_time	10	Warning	-	-	Monitors the total elapsed time for physical read of data/index pages
db_pool_sync_idx_reads	10	Warning	-	-	Monitors the number of synchronous index page reads per interval
db_pool_sync_idx_writes	10	Warning	-	-	Monitors the number of synchronous index page writes per interval
db_pool_sync_reads	75	Warning	-	-	Monitors the number of synchronous data reads per interval
db_pool_sync_idx_write_time	15	Warning	-	-	Monitors the synchronous write time in ms in interval
db_pool_sync_writes	10	Warning	-	-	Monitors the number of synchronous data writes per interval
db_pool_write_time	10	Warning	-	-	Monitors the total elapsed time for physical write of data/index pages
db_prefetch_wait_time	25	Warning	-	-	Monitors the time waited for prefetch
db_rollback_sql_stmts	25	Warning	-	-	Monitors the number of rollback SQL statements
db_rows_deleted	25	Warning	-	-	Monitors the number of rows deleted
db_rows_inserted	25	Warning	-	-	Monitors the number of rows inserted
db_rows_selected	25	Warning	-	-	Monitors the number of rows selected
db_rows_updated	25	Warning	-	-	Monitors the number of rows inserted
db_sec_log_used_top	25	Warning	-	-	Monitors the maximum secondary log space used (in bytes)
db_sec_logs_allocated	25	Warning	-	-	Monitors the number of secondary logs allocated at the moment

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
db_select_sql_stmts	25	Warning	-	-	Monitors the number of select SQL statements
db_since_last_backup	24	Warning	-	-	Monitors the number of hours since last backup
db_sort_heap_allocated	1	Warning	-	-	Monitors the current number of pages allocated to sort heap
db_sort_overflows	800	Warning	-	-	Monitors the # number of sort overflows to disk
db_static_sql_stmts	25	Warning	-	-	Monitors the number of rollback SQL statements
db_status	0	Warning	-	-	Monitors the database status
db_tot_log_used_top	25	Warning	-	-	Monitors the maximum total log space used (in bytes)
db_total_cons	25	Warning	-	-	Monitors the number of connects
db_total_hash_joins	5	Warning	-	-	Monitors the # number of hash joins executed in interval
db_total_hash_loops	1	Warning	-	-	Monitors the # number of times single partition of hash join was larger than the available sort heap space
db_total_sec_cons	25	Warning	-	-	Monitors the max. number of secondary connections
db_total_sort_time	800	Warning	-	-	Monitors the total elapsed time in ms
db_total_sorts	4	Warning	-	-	Monitors the # number of sorts executed
db_uid_sql_stmts	25	Warning	-	-	Monitors the number of Update, Insert, Delete SQL statements
db_x_lock_escals	1	Warning	-	-	Monitors the # number of x-lock escalations (row->table)

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
i_agents_created_empty_pool	5	Warning	-	-	Monitors the number of agents created because the agent pool was empty
i_agents_created_ratio	50	Warning	-	-	Monitors the Agents Created Due to Empty Agent Pool by Agents Assigned From Pool in %
i_agents_from_pool	20	Warning	-	-	Monitors the number of agents assigned from pool
i_agents_registered	150	Warning	-	-	Monitors # of agents curr. registered in instance
i_agents_registered_top	150	Warning	-	-	Monitors the max. # of agents ever registered since DB2 start
i_agents_stolen	5	Warning	-	-	Monitors the # number of agents stolen from applications in interval
i_agents_waiting_on_token	10	Warning	-	-	Monitors the # number of agents waiting for free token in instance
i_agents_waiting_top	10	Warning	-	-	Monitors the max. # number of agents ever waiting for token since DB2 start
i_agents_dbalive	1	Warning	-	-	Monitors the connectivity to the db2 databases
i_comm_private_memory	1000000	Warning	-	-	Monitors the amount of committed private memory
i_con_local_dbases	5	Warning	-	-	Monitors the # number of local databases having open connections
i_coord_agents_top	5	Warning	-	-	Monitors the max. # number of coordinating agents since DB2 start
i_gw_cons_wait_client	5	Warning	-	-	Monitors the # number if gateway connections waiting for client reply

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
i_gw_cons_wait_host	5	Warning	-	-	Monitors the # number of gateway connections waiting for host reply
i_gw_cur_cons	5	Warning	-	-	Monitors the current number of gateway connections
i_gw_total_cons	5	Warning	-	-	Monitors the number of gateway connection attempts
i_idle_agents	5	Warning	-	-	Monitors the number of unassigned agents in pool
i_local_cons	5	Warning	-	-	Monitors the curr. # number of local connections to the instance
i_local_cons_in_exec	5	Warning	-	-	Monitors the curr. # number of local connections to the instance executing
i_max_agent_overflows	3	Warning	-	-	Monitors the # number of times MAXAGENT parameter was reached (for DB2 before v9.5)
i_pct_active_connections	5	Warning	-	-	Monitors the percentage of active connections to total allowed connections
i_piped_sorts_accepted	5	Warning	-	-	Monitors the number of piped sort requests accepted
i_piped_sorts_rejected	5	Warning	-	-	Monitors the number of piped sort requests rejected
i_piped_sorts_requested	5	Warning	-	-	Monitors the number of piped sort requests
i_post_threshold_hash_joins	5	Warning	-	-	Monitors the # number of hash joins started after sort heap threshold exceeded

Alert Metric	Warning Threshold	Warning Severity	Error Threshold	Error Severity	Description
i_post_threshold_sorts	10	Warning	-	-	Monitors the number of times sort heap threshold has been reached
i_rem_cons_in	5	Warning	-	-	Monitors the curr. # number of remote connections to the instance
i_rem_cons_in_exec	5	Warning	-	-	Monitors the curr. # number of remote connections to the instance executing
i_sort_heap_allocated	8000	Warning	-	-	Monitors the number of pages allocated for sort-heap at the moment
ts_data_partitioning	15	Warning	-	-	Monitors the data partitioning feature that is enabled in DB2 servers
ts_free_pages	1000	Warning	-	-	Monitors the number of free pages in DMS table space
ts_free_pages_pct	10	Warning	-	-	Monitors the percent of free pages in DMS table space
ts_max_used_pages	10000	Warning	-	-	Monitors the maximum of used pages reached in DMS table space
ts_max_used_pages_pct	95	Warning	-	-	Monitors the maximum of used pages in % reached in DMS table space
ts_status	-	-	2114060287	Major	Monitors the status of the tablespace
ts_total_pages	3500	Warning	-	-	Monitors the total number of pages in table space
ts_usable_pages	2500	Warning	-	-	Monitors the number of usable pages in table space (excl. overhead)

<b>Alert Metric</b>	<b>Warning Threshold</b>	<b>Warning Severity</b>	<b>Error Threshold</b>	<b>Error Severity</b>	<b>Description</b>
ts_usable_pages_pct	10	Warning	-	-	Monitors the percentage of usable pages in DMS table space (exlc. overhead)
ts_used_pages	2500	Warning	-	-	Monitors the number of used pages in table space
ts_used_pages_pct	85	Warning	-	-	Monitors the percentage of used pages in table space