Log Settings -
New Developments in the
SAP DB Versions 7.3 to 7.4

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Icons

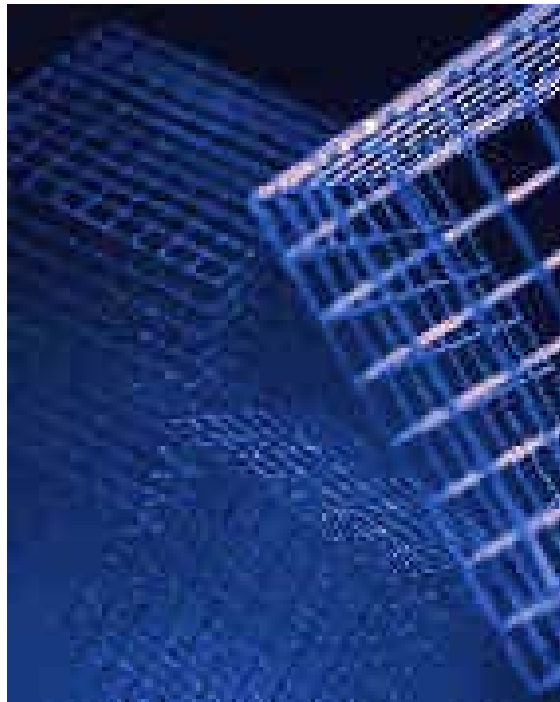| Icon	Meaning
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Log Settings –
New Developments in the SAP DB Versions 7.3 to 7.4

The procedures for selecting your log settings have been discussed and revised several times in
SAP DB Version 7.4. The following gives you an overview of the individual developments.

You can make the following log settings:

- You can mirror the log area.
  If you cannot use hardware-base mirroring for the log area, you can use the **software-
  based mirroring** setting from SAP DB.

- You can decide to do without log backups and use a non-standard log backup strategy
  by setting the **overwrite mode** for the log area accordingly.

- In very special situations, you can deactivate **redo log management temporarily**.

	Software-Based Mirroring	Overwrite Mode	Deactivate Redo Log Management
Version 7.3	Yes	Yes	No
Version 7.4.03.00	No	No	Yes
Version 7.4.03.05	Yes	No	Yes
Version 7.4.03.10	Yes	Yes	Yes
Version 7.4.03.11	Yes	Yes	Yes
Version 7.4.03.17	Yes	Yes	Yes
Version 7.4.04.00	Yes	Yes	Yes

Version 7.3

1. You select **software-based mirroring** by setting the database parameter LOG_MODE=DUAL.
   The DUAL log mode specifies that the log entries are saved in two log areas at the same time (mirrored). Log entries are always written and read in parallel.

2. You select the **overwrite mode** by setting the database parameter LOG_MODE= DEMO.
   The DEMO log mode specifies that the log area is overwritten cyclically, but without having to save the log entries first.
   You can use software-based mirroring in this mode only by using the utility command SET LOGMODE DEMO. In this case, the overwrite mode is activated only temporarily, and is deactivated for the next complete data backup.

3. You cannot **deactivate redo log management temporarily**.

Version 7.4.03 Build 000

1. You **cannot** select **software-based mirroring** by setting the database parameter LOG_MODE=DUAL.

2. The **overwrite mode** does not exist.
   Do not set the database parameter LOG_MODE to DEMO; this causes an error.

3. You use the utility command SET LOG DEVSPACE OFF to specify that **redo log management is deactivated temporarily**.
   You can execute this command in the operational state ADMIN. When you deactivate redo log management, transactions no longer write their redo log entries to the log queue. Redo log management remains deactivated even after the database instance is stopped. You must activate redo log management explicitly with SET LOG DEVSPACE ON in state ADMIN. To enable log entry backups again, you must restart the backup history with a complete data backup.

Version 7.4.03 Build 005

1. You select **software-based mirroring** by setting the database parameter
    LOG_MODE=DUAL.
    The DUAL log mode specifies that the log entries are written to two log areas at the
    same time (mirrored). However, the log entries are **read** from **one log area only**.

2. The **overwrite mode** does not exist.
    Do not set the database parameter LOG_MODE to DEMO; this causes an error.

3. You use the utility command SET LOG DEVSPACE OFF to specify that **redo log
    management is deactivated temporarily**.
    You can execute this command in the operational state ADMIN. When you deactivate
    redo log management, transactions no longer write their redo log entries to the log
    queue. Redo log management remains deactivated even after the database instance is
    stopped. You must reactivate redo log management explicitly with SET LOG DEVSPACE
    ON in state ADMIN. To enable log entry backups again, you must restart the backup
    history with a complete data backup.

Version 7.4.03 Build 010

1. You select **software-based mirroring** by setting the database parameter
    LOG_MODE=DUAL.
    The DUAL log mode specifies that the log entries are written to two log areas at the
    same time (mirrored). However, the log entries are **read** from **one log area only**.

2. You select the **overwrite mode** by setting the database parameter LOG_BACKUP=NO.
    When you set the overwrite mode, the log area can be overwritten at each savepoint
    without the log entries having to be backed up first.
    Do not set the database parameter LOG_MODE to DEMO; this causes an error.

3. You use the utility command SET LOG DEVSPACE OFF to specify that **redo log
    management is deactivated temporarily**.
    You can execute this command in the operational state ADMIN. When you deactivate
    redo log management, transactions no longer write their redo log entries to the log
    queue. Redo log management remains deactivated even after the database instance is
    stopped. You must reactivate redo log management explicitly with SET LOG DEVSPACE
    ON in state ADMIN. To enable log entry backups again, you must restart the backup
    history with a complete data backup.

Version 7.4.03 Build 011

1. You select **software-based mirroring** by setting the database parameter LOG_MODE=DUAL.
The DUAL log mode specifies that the log entries are written to two log areas at the same time (mirrored). However, the log entries are **read** from **one log area only**.

2. You select the **overwrite mode** with the utility command SET LOG AUTO OVERWRITE ON.
You can execute this command in the operational states ONLINE or ADMIN. When you set the overwrite mode, the log area can be overwritten at each savepoint without the log entries having to be backed up first. The overwrite mode remains activated even after the database instance is stopped. You must deactivate the overwrite mode explicitly with SET LOG AUTO OVERWRITE OFF in state ONLINE or ADMIN. To enable log entry backups again, you must restart the backup history with a complete data backup.
The database parameter LOG_BACKUP no longer exists.
Do not set the database parameter LOG_MODE to DEMO; this causes an error.

3. You use the utility command SET LOG WRITER OFF to specify that **redo log management is deactivated temporarily**.
You can execute this command in the operational state ADMIN. When you deactivate redo log management, transactions no longer write their redo log entries to the log queue. Redo log management remains deactivated even after the database instance is stopped. You must reactivate redo log management explicitly with SET LOG WRITER ON in state ADMIN. To enable log entry backups again, you must restart the backup history with a complete data backup.
The utility command SET LOG DEVSPACE [ON/OFF] no longer exists.

Version 7.4.03 Build 017

1. You select **software-based mirroring** when you use the Database Manager to create the required duplicate log volumes. The user does not need to take any further actions. This procedure sets the database parameter LOG_MIRRORED=YES implicitly. The database parameter LOG_MODE no longer exists. When you choose software-based mirroring, you specify that the log entries are written to two log areas at the same time (mirrored). However, the log entries are **read** from **one log area only**.

2. You select the **overwrite mode** with the utility command SET LOG AUTO OVERWRITE ON. You can execute this command in the operational states ONLINE or ADMIN. When you set the overwrite mode, the log area can be overwritten at each savepoint without the log entries having to be backed up first. The overwrite mode remains activated even after the database instance is stopped. You must deactivate the overwrite mode explicitly with SET LOG AUTO OVERWRITE OFF. To enable log entry backups again, you must restart the backup history with a complete data backup. The database parameter LOG_BACKUP no longer exists. The database parameter LOG_MODE no longer exists.

3. You use the utility command SET LOG WRITER OFF to specify that **redo log management is deactivated temporarily**. You can execute this command in the operational state ADMIN. When you deactivate redo log management, transactions no longer write their redo log entries to the log queue. Redo log management remains deactivated even after the database instance is stopped. You must reactivate redo log management explicitly with SET LOG WRITER ON in state ADMIN. To enable log entry backups again, you must restart the backup history with a complete data backup. The utility command SET LOG DEVSPACE [ON/OFF] no longer exists.

Version 7.4.04

1. You select **software-based mirroring** when you use the Database Manager to create the required duplicate log volumes. The user does not need to take any further actions. This procedure sets the database parameter LOG_MIRRORED=YES implicitly.
    The database parameter LOG_MODE no longer exists.
    When you choose software-based mirroring, you specify that the log entries are written to two log areas at the same time (mirrored). However, the log entries are **read** from **one log area only**.

2. You set the **overwrite mode** with the Database Manager. This executes the command SET LOG AUTO OVERWRITE ON implicitly.
    You can set the overwrite mode in the operational states ONLINE or ADMIN. When you set the overwrite mode, the log area can be overwritten at each savepoint without the log entries having to be backed up first. The overwrite mode remains activated even after the database instance is stopped. You must use the Database Manager to deactivate the overwrite mode explicitly. To enable log entry backups again, you must restart the backup history with a complete data backup.
    The database parameter LOG_BACKUP no longer exists.
    The database parameter LOG_MODE no longer exists.

3. You use the Database Manager to **deactivate redo log management temporarily**. This executes the command SET LOG WRITER OFF implicitly.
    You can deactivate redo log management in the operational state ADMIN. When you deactivate redo log management, transactions no longer write their redo log entries to the log queue. Redo log management remains deactivated even after the database instance is stopped. You must reactivate redo log management explicitly with the Database Manager. To enable log entry backups again, you must restart the backup history with a complete data backup.
    The command SET LOG DEVSPACE [ON/OFF] no longer exists.