



# Why is my Transaction Log growing very large?

A Transaction (TX) Log is used by a database as a temporary store of data. It should be able to self-manage its size but sometimes it can grow really large. There are several reasons why this might happen:

1. Log file is large but empty. Sometimes, perhaps as a result of another fault, the TX log file is showing as very large but in fact it has hardly any data in it.

Recovery: Try to Shrink the TX Log, either by the Sql Server Management Studio UI or by running the following:

Use QHistorianData

```
DBCC Shrinkfile(QHistorianData_Log)
```

2. No room in the database. If there is no room in the database, transactions can be stored in the TX log. You can see if this is the case by running a report in Sql Server Management Studio. Right-Click on the database name, select Reports, Standard Reports and then Disk Usage. There may also be events in the Windows Application Log that indicate a full filegroup.

Recovery: Make some more space in the database by expanding the files or archiving. Note that there is no Exaquantum mechanism to get the data from the TX log to the Exaquantum database in this situation. Once there is space, try to shrink the TX Log as detailed above.

3. Full Backup Model Specified. If the Backup Model for the database is set to Full, then all transactions are stored to the log until it is backed up. This is not required for Exaquantum.

Recovery: Set the Backup Model to Simple by accessing the properties of the database in SQL Server Management Studio. After this, you should be able to shrink the log file.

4. Replication is Set. There have been some cases where replication has been set for the database. This will cause all transactions to be stored in the TX log until they can be replicated to the other server. In fact, replication is not used and not set in which case, the TX log just grows. It is not completely understood how this situation occurs. To see if you have the replication flag set run the following Script in SQL Server Management Studio:

```
select name, log_reuse_wait_desc from sys.databases where name = 'qhistoriandata'
```

If this shows Replication, then you need to take action to remove it.

Recovery: Run the following to remove replication from the database:



Use qhistoriandata

EXEC sp\_RemoveDBReplication

After this, you should be able to shrink the TX Log file.

5. Other Cause. If none of the above solve the issue, you will need to contact your support channel. Before you do this, run the select statement shown in item 4 above as this might help explain the issue that you are seeing.

Recovery: Contact your Support Channel

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