

## Exaquantum services don't start, and a database is marked as (Suspect) in SQL Server

KB-0008-23

Document Summary	
<b>Article Type</b>	User Guide
<b>Products Affected</b>	Exaquantum/PIMS
<b>Versions Affected</b>	All versions
<b>Function Affected</b>	Historian service / QHistorianData database
<b>Available Resolution</b>	Restore from database backup or attempt a database repair
<b>Audience</b>	System Administrators
<b>Summary</b>	<p>If the Exaquantum services cannot be started and a database is marked as suspect in SQL server, this may indicate database corruption.</p> <p>This article describes the procedure for recovering a database marked as suspect.</p>
<b>Review Date</b>	Document to be reviewed before end of January 2024

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# Chapter 1 - Introduction

If SQL server detects corruption in an Exaquantum database, it will be marked as suspect and Exaquantum services will not start.

This document explains the recovery options for this situation. These should only be carried out if the database is showing as suspect in SQL Server Management.

## 1.1 Audience

This guide is intended for system administrators.

## Chapter 2 – Recovery Of A Suspect Database

There are two options to recover from a suspected corrupt database:

1. Restore from the most recent good database backup.
2. Attempt a database repair using SQL Studio.

If no recent or good backup is available, then a repair of the database can be undertaken. However, a repair is not a substitute for maintaining a good backup strategy.

Performing a repair on a database should always be considered as the last option for recovery. A repair can result in data loss of the affected area if it cannot be recovered.

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## 2.1 Recovery Using SQL Server Management Studio

If the database cannot be restored, it is possible to attempt a repair by following the procedure outlined below. The steps below assume that it is the QHistorianData database that is in suspect status.

SQL commands can be executed in a New Query window and are in **Bold**.

1. Confirm that the Exaquantum Services are stopped
2. Turn off the suspect flag on the database  
**EXEC sp\_resetstatus 'QHistorianData'**
3. Perform a consistency check on the database  
**DBCC CHECKDB ('QHistorianData')**
4. CHECKDB will advise of any errors and the minimum repair level.  
A repair will likely result in some data loss from around the time the database became unavailable.

### To Run a Repair

If advised in step 4 to attempt a repair allowing data loss, the steps below must be followed:

5. Set the database to Single-User Mode  
**ALTER DATABASE QHistorianData SET SINGLE\_USER WITH ROLLBACK IMMEDIATE**
6. Attempt to repair the database:  
**DBCC CHECKDB ('QHistorianData', REPAIR\_ALLOW\_DATA\_LOSS)**
7. CHECKDB will return the result of the repair.  
If there are any outstanding errors, rerun steps 4-6 until there are no further errors reported.
8. When there are no further errors reported, set the database back to Multi-User mode  
**ALTER DATABASE QHistorianData SET MULTI\_USER**
9. Verify database connectivity by selecting the top 1000 rows on a number of tables.
10. Start Exaquantum Services from the Exaquantum Service Manager.

If the above procedure does not resolve the issue, contact a support channel for further assistance.

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## Chapter 3 - Further Information

If you have any questions or queries about the information contained in this document, then please contact Yokogawa Marex at [customer.services@ymx.yokogawa.com](mailto:customer.services@ymx.yokogawa.com)

The Yokogawa Marex support website is available at <https://ymx.yokogawa.com/support>

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# Highlights

The Highlights section gives details of the changes made since the previous issue of this document.

- **Summary of Changes**

This is Issue 1.0 of the document related to Product Library version 1.0.

- **Detail of Changes**

The changes are as follows:

Chapter/Section/Page	Change