

Technical Bulletin

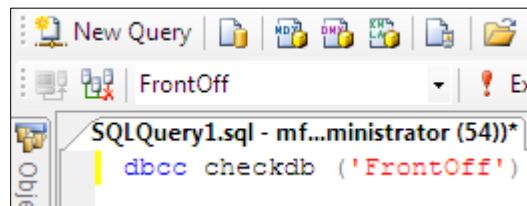
Checking and Repairing the ISS45 SQL Front Office Database: Using DBCC CHECKDB

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This bulletin takes you through the process of running a DBCC to check the ISS45 SQL Front Office (FrontOff) database for corruption and then resolving any problems. You can perform these actions during the business date without issue. As always, make sure to back up the FrontOff database before making changes.

CHECKDB PROCESS

1. First, run the DBCC to scan the database for potential issues.
 - a. Use command: DBCC CHECKDB

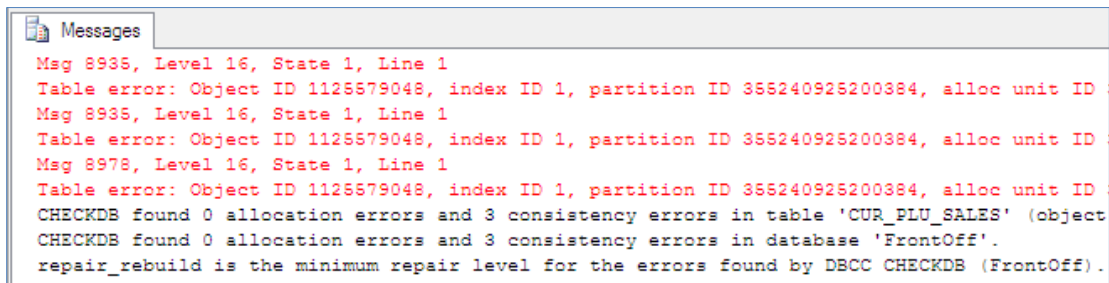


2. The DBCC will usually complete this task in a few minutes, depending on the size of the database. It will then inform you if there are any inconsistencies, and provide the minimum repair level required to resolve the issue. There are three repair levels:
 - a. REPAIR_FAST
 - i. Repairs some basic SQL problems (this level is not commonly used in later versions of SQL).
 - b. REPAIR_REBUILD
 - i. Performs repairs that can be done without any risk of data loss. This repair level can include quick repairs or more time-consuming repairs such as rebuilding an index.
 - c. REPAIR_ALLOW_DATA_LOSS
 - i. This is for the most serious corruption situations, attempting to repair all reported errors. This can result some data loss, and therefore is not advised except as a last resort, or where you are convinced that some data is very likely already corrupted and may not be recoverable.

ALWAYS MAKE A BACKUP COPY OF THE FRONTOFF DATABASE BEFORE PERFORMING A REPAIR_ALLOW_DATA_LOSS REPAIR ACTION!

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3. In the following example, the reported levels needed to resolve the issue are "REPAIR_REBUILD":



```
Messages
Msg 8938, Level 16, State 1, Line 1
Table error: Object ID 1126579048, index ID 1, partition ID 355240925200384, alloc unit ID
Msg 8938, Level 16, State 1, Line 1
Table error: Object ID 1126579048, index ID 1, partition ID 355240925200384, alloc unit ID
Msg 8978, Level 16, State 1, Line 1
Table error: Object ID 1126579048, index ID 1, partition ID 355240925200384, alloc unit ID
CHECKDB found 0 allocation errors and 3 consistency errors in table 'CUR_PLU_SALES' (object
CHECKDB found 0 allocation errors and 3 consistency errors in database 'FrontOff'.
repair_rebuild is the minimum repair level for the errors found by DBCC CHECKDB (FrontOff).
```

4. We will now run the DBCC routine again, but this time adding the instruction to repair the located errors.
 - a. But first it's essential to prevent other users from making database changes while these actions are being performed. Do this by stopping the ISS45 services.
 - b. Then you will (a) set the database to Single_User mode, (b) run DBCC CHECKDB again, this time inserting the selected Repair Level (from Section 2 above), and then (c) return the database to Multi_User mode:
 - c. So for this example, you would run the following commands:¹

```
ALTER DATABASE FrontOff SET SINGLE_USER WITH ROLLBACK IMMEDIATE;
DBCC CHECKDB ('FrontOff', REPAIR_REBUILD);
ALTER DATABASE FrontOff SET MULTI_USER;
```
 - d. Once these processes are complete, the repairs should have been made and any database corruption eliminated.
5. You should now restart ISS45 services.

MORE INFORMATION

More information can be found at the Microsoft Knowledge Base at:

<https://msdn.microsoft.com/en-us/library/ms176064.aspx>

¹ Note – the text colors indicated are automatically provided by SQL, referring to:
Blue: Keywords defining SQL functions
Red: Database or variable names
Black: Everything else