

Introduction

Damage to NexusDB tables is very unusual, but does happen. This document tells you how to identify damaged tables and repair them.

Diagnosis

GMS doesn't always know that a table has been damaged; you need to infer that from the bug reports that GMS displays. (If you don't get a bug report, you probably don't have a damaged table.) Look for the line labeled "exception message"; if you see an error like "Read failure" or "Physical read error", you may have a damaged table.

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exception message: NexusDB: <unnamed TnxTable instance>: Read failure[$2401/9217]
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Your first course of action is to call or e-mail GMS Support; we can read the error report and tell you which (if any table) has a problem. If this is not feasible due to time zone issues (or it's a weekend or holiday), you can follow the repair process yourself on all tables – no damage will occur if you repair an undamaged table.

Getting Started

There are two different ways of repairing NexusDB tables, depending on the version of GMS you're currently running. GMS 5.2.0.83 and higher has a built-in tool for this purpose; older versions need to use NexusDB's Enterprise Manager.

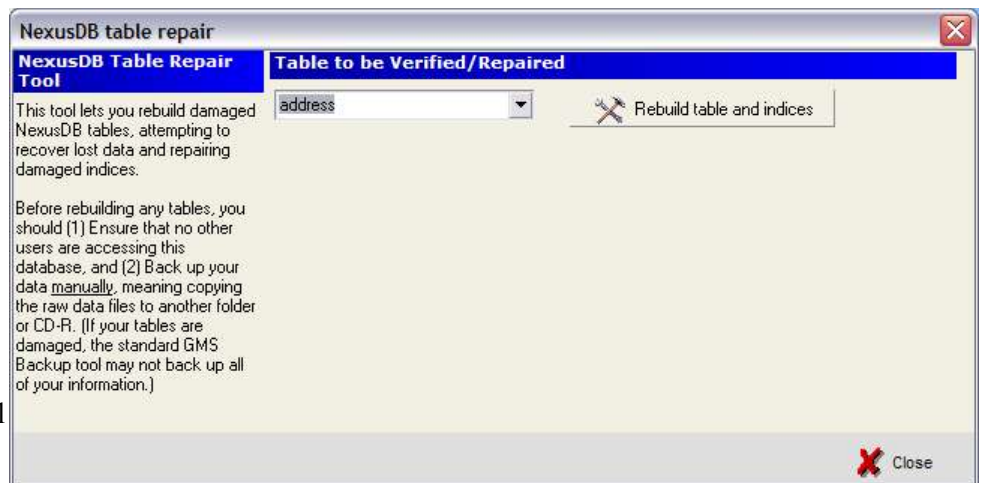
GMS 5.2.0.83+

1. Get all users out of GMS and its companion programs. You cannot repair a table with other users using it.
2. Make a backup! Don't use GMS' internal backup mechanism, since it may not get all data records correctly if a table is damaged. Copy the data files (all of them will have the "nx1" extension) into a separate folder.
3. Start GMS while holding down the left [Ctrl] key – this will make GMS ask you which database you want to start with.
4. Select the database with tables that need repair
5. Click on the [Tools] button and select "Verify and repair tables in this database"
6. For each table that is suspect, select its name from the list and click on [Rebuild table and indices]

After you process each table, GMS will tell you how many records it was able to recover, and how many (if any) were not recoverable.

At the same time, it leaves a copy of the original table with a new name. For example, the "address" table will have two copies: "address.nx1" (the repaired copy) and "address_2005-06-20 21-40-30" (the original table, copied at 9:40.30pm on June 20, 2005). If all is well, you can later delete these leftover tables, but it's good practice to leave them there for a day or so of use to ensure that they're not needed.

If any records were not recoverable, there will be a table named like "address_Failed_2005-06-20 21-40-30".



GMS prior to 5.2.0.83

1. Get all users out of GMS and its companion programs. You cannot repair a table with other users using it.
2. Make a backup! Don't use GMS' internal backup mechanism, since it may not get all data records correctly if a table is damaged. Copy the data files (all of them will have the “nx1” extension) into a separate folder.
3. Install NexusDB Enterprise Manager on your computer if it's not already present. To download NexusDB Enterprise Manager, go to <http://www.nexusdb.com>, select the “Downloads” link, then download NexusDB Enterprise Manager. Un-zip the file you downloaded into your GMS folder.

Repair Tables

In your GMS folder, double-click on the nxEnterpriseManager.exe icon.

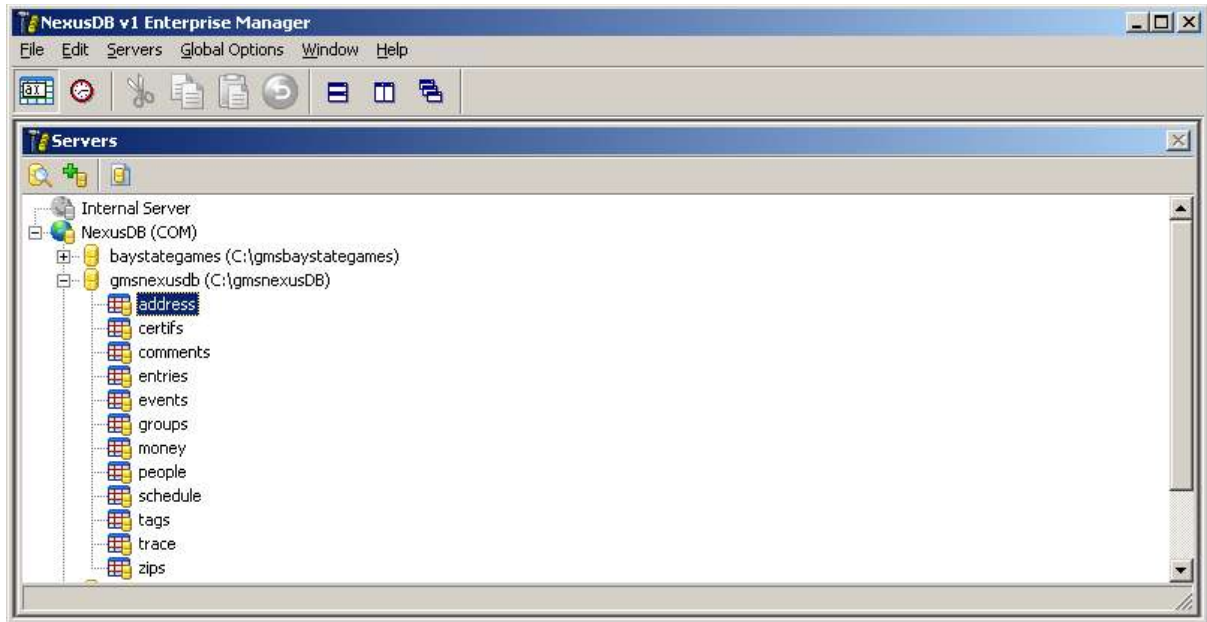


Illustration 1, Enterprise Manager main screen (with NexusDB server running)

If your data is running with a standalone version of NexusDB (i.e. you're not connecting to a NexusDB server), you may need to configure NexusDB Enterprise Manager to locate your data.

If there is a plus sign next to “Internal Server” then click it to see the aliases, if “GMS” is there double-click it to see the list of tables. Otherwise, right-click on “Internal Server” and select “New database alias”. In the “Add Database” window, name the database “GMS” then either type in the path to your data or use the “Browse” button to select the location. Click OK to establish the alias. Click the plus sign next to the “Internal Server” icon and then double-click the “GMS” alias to show the list of tables.

If your data is running with NexusDB server, no configuration is necessary. Click the plus sign next to the “NexusDB (COM)” or “NexusDB@(something)” icon to see a list of databases and find your GMS data, then double click it to show the list of tables.

Now that you have found your data, click the plus sign next to the “GMS” database to show the tables within. Right click on the (suspected) damaged table in the list and select “Recover records”. NexusDB Enterprise Manager will run (this could take a while) and create two new tables: “[table name]_Recovered” and “[table name]_Failed”.

Open up the table “[table name]_Failed” and see how many records are in it – it should be empty; if it is, delete it by right-clicking on it and selecting “Delete table”.

Open up the original table, and check its record count. Now open “[table name]_Recovered” and check its record count – the two should be the same. if they are, delete the original file, then rename “[table name]_Recovered]” to the name of the original table.

<u>Original Name</u>	<u>Keep (Y/N)?</u>	<u>New Name</u>
address.nxl	N	n/a
address_Recovered.nxl	Y	address.nxl
address_Failed.nxl	N	n/a

When you are finished, close NexusDB Enterprise Manager and open GMS.

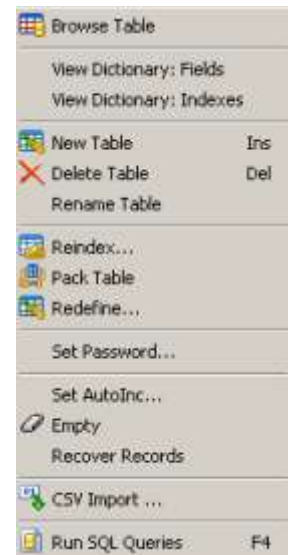


Illustration 2, menu options