

Inmagic PowerPack

Textbase Checker Service User's Guide



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Learning about the Checker

The Checker is part of Inmagic® PowerPack™, which is a set of three Windows services: Checker, Updater, and Importer. The Checker is also supplied with PowerPack Lite (which consists of the Checker and Updater, but not the Importer).

You can use the PowerPack services on Inmagic® DB/TextWorks® textbases to help automate management and maintenance tasks.

Purpose

The purpose of the Checker is to analyze textbase integrity and optionally fix some types of problems. The Checker writes problems to a textbase check file (.CHK). If the textbases are problem-free, you can proceed with confidence. If errors remain, the textbase check file recommends recovery procedures.

You should check your textbases regularly, as part of a regular maintenance routine. It is also good practice to check a textbase prior to backing it up, importing records, or posting deferred updates.

Overview

Textbases can become corrupt in various ways, one of the most common being when the computer unexpectedly stops running during maintenance operations, such as adding or editing records.

The Checker looks for errors in the internal data organization, and can optionally repair many of these errors and/or rebuild damaged indexes. The Checker does not examine the content of a textbase. For example, it does not verify the accuracy of index entries (for example, if some records are not completely indexed).

The Checker will examine each textbase only once a day. If it cannot open a textbase within the specified interval, the textbase will not be checked that day. Each textbase receives its own thread, so multiple textbases can be checked simultaneously. Textbases are opened with exclusive access (so no one else, and no other software, can access the textbase while it is being checked). Once a textbase has been checked, it is closed.

The Checker generates check files and a log file to record activity and help analyze problems. If the Checker reports that a textbase is damaged, avoid maintenance activities until you have resolved the problem and checked the textbase again to ensure the problems have been resolved. Maintenance activities include adding, editing, or deleting records, and posting deferred updates. If any other Inmagic service is running and using this textbase, such as the Updater, turn it off until you repair the textbase or restore a recent, reliable backup.

Best Practices

- Ideally, the Checker should be installed on the file server containing the drive where the textbase files reside. This eliminates network traffic because indexing occurs at the server, not spread across many machines. If any of the textbases that you want to check are located on machines other than the one where the Checker is installed, you must:
 - Ensure that the **Inmagic PowerPack Textbase Checker** Windows Service uses a Log On account (in the service Properties) that has (at a minimum) Read access to all the textbases in the Textbases to Check list. If repairs are to be made, the account needs full access.
 - Use the UNC file name (for example, \\SERVER\VOL1\LIBRARY\CATALOG) instead of a drive letter (G:\LIBRARY\CATALOG) when adding textbases to the Textbases to Check list. Do this by using the **Network Neighborhood** or **My Network Places** icon on the Open Inmagic DB/TextWorks Textbase dialog box.
- If a textbase is damaged, avoid maintenance activities until you have resolved the problem and checked the textbase again to ensure it is problem-free. Maintenance activities include adding, editing, or deleting records, and posting deferred updates. If any other Inmagic service is running and using this textbase, such as the Updater, turn it off until you repair the textbase or restore a recent, reliable backup.
- Avoid stopping the Checker while it is running. If you stop it while it is rebuilding indexes, the indexes will be incomplete and searches will not work as expected. In this case, you can use DB/TextWorks to rebuild the indexes. Both the textbase log file and the check file will contain a message if an index rebuild is interrupted.
- If you have the Checker set up to repair problems, never reboot the system while the Checker is running. Always stop the Checker first. (Note that rebooting often occurs after new software is installed, when the application asks if you want to restart your machine.) If you reboot or the system crashes while the Checker is running, stop the Checker as soon as you can. Then start it again and fix any problems that were detected. If the Checker was in the middle of rebuilding indexes, the indexes may be incomplete (but structurally intact), so you may need to use DB/TextWorks to rebuild the indexes.
- The Checker requires exclusive access to a textbase. No other users or software can access the textbase while it is being checked, and the Checker cannot open a textbase if it is being used by anyone else. For this reason, you should schedule the Checker for an off-peak time, while no other users or software (such as backup programs) require access to the textbase(s) you are checking. If users report that they cannot open a textbase while the Checker is running, someone with Administrator privileges will need to stop the Checker, then remember to start it again later.

Starting or Stopping the Checker Service

The Inmagic PowerPack Textbase Checker is a Windows service. The Checker service must be running in order to perform a check. Whenever you make a configuration change, you must restart the service in order for your change to take effect.

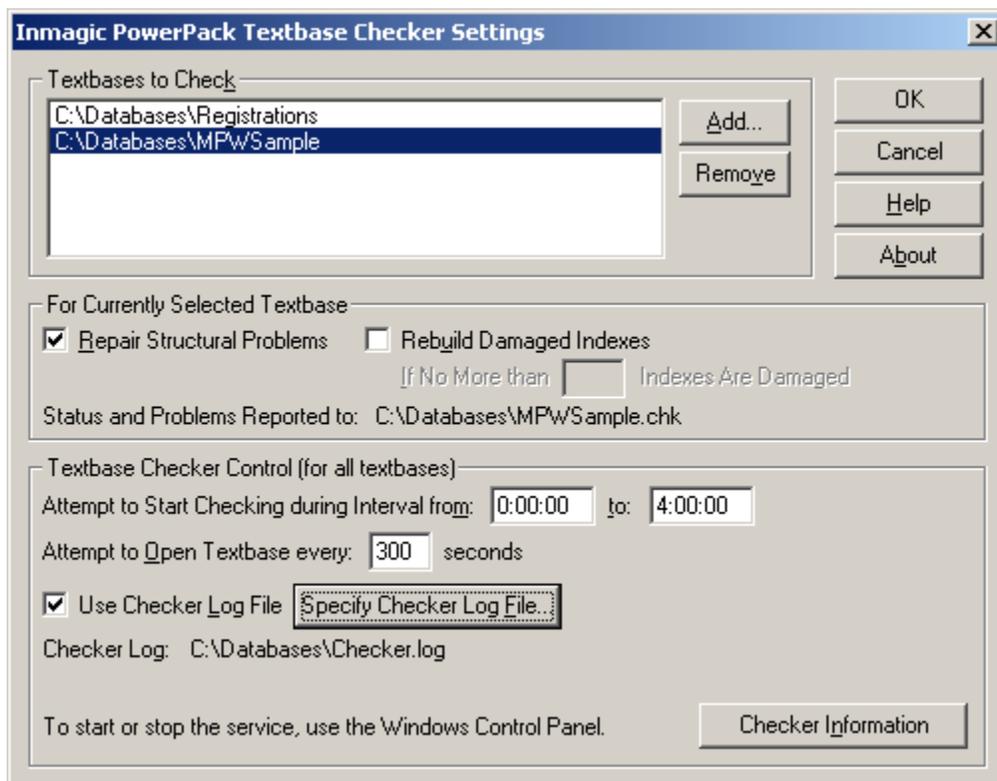
To start or stop the service:

1. Open the Windows Control Panel, open the Administrative Tools folder, and double-click **Services**. If you prefer, you can choose **Start>Run** and enter **services.msc**.
2. Right-click the Inmagic PowerPack Textbase Checker service, and choose **Start** or **Stop**.
3. By default, the Checker service is set to run **Manually**. If you want the service to start automatically whenever the system is rebooted, set the service Startup Type to **Automatic**.
4. Close the Services and Control Panel windows.

Configuring the Textbase Checker

This topic explains how to use the Inmagic PowerPack Textbase Checker Settings dialog box to configure the Checker.

1. Choose **Programs>Inmagic Applications>PowerPack>Checker** to open the Inmagic PowerPack Textbase Checker Settings dialog box.



2. Click the **Add** button and select a textbase to add to the **Textbases to Check** list. By default, you can add up to 50 textbases. To change the default, modify the [DBCHKSRV.INI](#) file.

Note: If the textbase is on a different machine than the Checker program, you must use the UNC file name (for example, \\SERVER\VOL1\LIBRARY\CATALOG) instead of a drive letter (for example, G:\LIBRARY\CATALOG).

3. If you add a textbase that has passwords, you are prompted for the Master password. Type the Master password assigned to this textbase. Characters that you type appear as asterisks on the screen, so no one can see the password as you type it. If you do not know the Master password, you will not be able to check this textbase.

4. Specify options for the currently selected textbase(s):

- **Repair Structural Problems.** Check this box to [repair problems](#). This box is checked by default. If you clear it, the Checker will report problems in the check file (.CHK) but will not fix any problems.
- **Rebuild Damaged Indexes.** An index is a collection of keys (words or terms) derived from information entered in fields. DB/TextWorks uses indexes to provide fast access to information. Check **Rebuild Damaged Indexes** to rebuild indexes so they accurately reflect information in the textbase. Indexes with no structural problems will not be rebuilt. Values in fields are not recomputed (no data is changed). Re-indexing may require significant time, depending on the size of the textbase. This option is enabled only if **Repair Structural Problems** is selected.
- **If no more than [nn] indexes are damaged.** To prevent rebuilding of indexes if too many indexes are damaged, type a reasonable value (for example, 2 or 3). The default is 1. The existence of many damaged indexes may indicate more serious problems, including content problems, in which case you may prefer to restore a reliable backup or use the DB/TextWorks Recover Textbase option.

Note: The value [nn] represents the number of Term or Word indexes, not the number of fields. For example, if you set this value to 3, a maximum of three damaged indexes can be rebuilt (say, the Term and Word indexes for an *Author* field and the Term index for a *Date* field). If more than this number of damaged indexes are detected, no indexes will be rebuilt.

- **Status and Problems Reported to.** This line shows the check file name and location. A check file is generated for each textbase that is checked. Please see *Examining the Textbase Check File (.CHK)*.
5. The **Textbase Checker Control** options affect all of the textbases in the Textbases to Check list.
 - **Attempt to Start Checking during Interval from ... to...** Specify a starting and ending time for the Checker to run. For the starting time, specify a time when no one (including any backup software) will be using the textbase. Typically, this is an off-peak time, such as 3:15 in the morning. The Checker requires exclusive access to a textbase. If any person or application has the textbase open, the textbase cannot be checked. For the ending time, specify a time by which the check must be started in order to finish in time (before anyone will need to use the textbase). For example, specify 3:30 if the Checker needs to start by that time in order to be done checking all textbases by 8:00 a.m., when people start coming in to work. You may need to run the Checker once or twice to determine this setting (note that it may take longer

when repairing problems). Once a textbase is opened, it remains open until the check is done. If a textbase cannot be opened during the specified interval, it will not be checked that day. The Checker will try again the following day.

Note: Specify times using the HH:MM:SS format, using 24-hour time. For example, 0:00 indicates midnight (the default). 1:15 indicates 1:15 a.m. 12:00 indicates noon.

- **Attempt to Open Textbase every [nnn] seconds.** Specify how often the Checker attempts to open a textbase, within the specified **Attempt to Start Checking Interval**. If a person or application (for example, your backup software) has the textbase open, the Checker will not be able to open that textbase. Type the number of seconds that the Checker should wait before trying again to open the textbase. The default is 300 seconds (five minutes). Once a textbase is open, it remains open until the check is complete.
 - **Use Checker Log File.** Check this box to record activity in a log file (recommended). By default, the file is called CHECKER.LOG. To change the name or location, click the **Specify Checker Log File** button. For more information, please see *Checker.LOG File*.
 - **Checker Information.** Click this button to display and/or print information about the Checker.
6. Click **OK**. This closes the dialog box and writes the settings to the DBCHKSRV.INI file.
 7. If the Service is set to Automatic (in Windows), the Checker will run at the specified interval. If the Service is set to Manual, it won't run until you Start it in Windows Services, and the specified interval begins. **Important!** You must restart the Service in order for your changes to take effect.
 8. After a textbase has been checked, read the textbase check file by opening it in any text editor. A check file is saved in the textbase directory and has the same name as the textbase (for example, SALES.CHK). If the check file indicates any problems with the textbase, follow the recommended actions. For more information, see *Examining the Textbase Check File (.CHK)*.

Diagnosing and Fixing Problems

This topic explains what to do after running the Checker on a textbase, and describes what kinds of problems the Checker can and cannot fix. It also includes a *Troubleshooting* section.

Examining the Textbase Check File (.CHK)

A CHK file is generated for each textbase that you check. Check files are located in the textbase directory and have the same name as the textbase, with a .CHK extension. For example, a textbase called *Sales* has a check file called SALES.CHK.

A textbase check file contains information about any problems found and fixed. It also indicates whether you need to perform additional recovery steps to restore the textbase to a problem-free state. If a textbase is seriously damaged, the check file recommends recovery procedures. If no problems are found, the check file says so.

Read the check file daily (ideally, before people start using the textbase for the day), using any text editor. If the check file indicates that any problems have not been fixed, you should either restore a reliable backup or use DB/TextWorks to recover the textbase.

Note: Each textbase check file is replaced by a new file every day (information is not retained or appended). Therefore, you should read the check file for each textbase every day and resolve any problems as suggested.

When you read a check file, note the following important points:

- At the end of the file, if the textbase has unrepaired problems, there is a Recommendations section. This is the most important information to read. Follow the recommendations to restore your textbase to a problem-free state.
- Lines preceded by +++ indicate repairs.
- Toward the end of the file, there are two lines that indicate the number of problems found and the number of problems repaired. If more problems were found than repaired, the file recommends recovery procedures.
- If the check file indicates that there are many structural problems, the textbase *content* may be seriously damaged. For example, the network may have crashed while records were being indexed. The Checker cannot fix content problems. If you suspect that content is damaged, you should either restore a reliable backup or use the DB/TextWorks Recover Textbase feature, even if the Checker was able to fix structural problems.

What the Checker Can Fix

The Checker looks for errors in the internal data organization. It can repair many of those errors if you select both **Repair Structural Problems** and **Rebuild Damaged Indexes**.

Problems that the Checker can fix are summarized below:

- **Fix the record count.** Occasionally, the internal record count differs from the actual number of records in a textbase. Fixing the record count resets the internal record count to match the true number of records.
- **Fix element problems in the textbase file (.TBA).** The Checker can clear inappropriate locks on elements that cause messages indicating someone else is editing

the element when no one is doing so. Also, if the directory of elements is so damaged that it cannot be read, which often causes DB/TextWorks to crash, the element directory will be removed. Essentially, all the elements of that type are deleted, but you will be able to open and use the textbase without crashes.

- **Remove the abort flag.** The "abort flag" is an internal mechanism that makes the following message appear when you open a textbase in DB/TextWorks after an abort occurred during a maintenance operation: "The textbase files are in an inconsistent state due to an abort."

Note: If any errors cannot be fixed, the abort flag will not be cleared. It remains set to remind you that the textbase is damaged. In this case, look at the textbase check file. If many indexes need to be rebuilt or the recommendation is to recover the textbase, use the DB/TextWorks Recover Textbase feature to restore the textbase to a problem-free state. Otherwise, run the Checker again using **Repair Structural Problems** (and **Rebuild Damaged Indexes**, if recommended).

What the Checker Cannot Fix

The Checker does not examine the content of a textbase and cannot fix content problems, such as validation violations, duplicate records, or inaccurate index entries. To recover from these types of problems, restore a reliable backup or use the DB/TextWorks Recover Textbase feature.

The Checker does not repair user files (.TBU), which are located on local machines for individual users. To repair elements saved in a user file, an individual user can start DB/TextWorks, choose **Manage Textbases>Check Textbase**, select a textbase to check, and then select the **Repair Structural Problems** and **Check User File Only** check boxes.

Troubleshooting

To troubleshoot Checker issues, use the following resources:

- Read the textbase check file: See *Examining the Textbase Check File (.CHK)*.
- Read the optional log file: See *Checker.LOG File*.
- Click the **Checker Information** button on the Inmagic PowerPack Textbase Checker Settings dialog box to display and/or print information about the Checker.

Some common issues and error messages are listed below.

Issue: A textbase CHK file is missing or incomplete.

To diagnose this problem, review the CHECKER.LOG file. Typical reasons for a missing or incomplete CHK file are that someone opened the textbase during the Checker starting interval, so the Checker was unable to check the textbase.

Message: "Cannot proceed because textbase <textbase name> is inaccessible."

This message may appear if a specified textbase does not exist. It may also appear if the textbase does exist, but resides on a machine other than the one where the Checker resides.

Message: "<entry> key is not sorted in correct sequence. Index rebuild recommended."

This message may be reported in the .CHK file when index entries are out of sequence. **<entry>** is the field entry that is not sorted correctly. If you routinely see this message, one or more of your workstations probably has incompatible Country/Language settings. Make sure the

Windows Control Panel Regional Settings sort the same for all workstations using DB/TextWorks, including the one on which the Checker is installed.

Initialization and Log Files

This topic describes the initialization and log files that are generated by the Checker. These files can be opened using any text editor, such as Microsoft Notepad.

InmServices.INI File

The InmServices.INI file indicates the location of all of the PowerPack Service initialization files (DBCHKSRV.INI, DBUPDSRV.INI, DBIMPSRV.INI).

To determine or change where the Service INI files are saved

1. Use a text editor to open the **InmServices.ini** file, which is in the Services installation folder (for example, C:\Program Files\Inmagic\PowerPack\InmServices.ini).
2. Locate the [InmServices] section, and change the IniFilePath value. Create the specified folder, if it doesn't exist. For example:

```
[InmServices]
IniFilePath=c:\InmServices
```

3. Save and close the file.

DBCHKSRV.INI File

The Checker initialization file (DBCHKSRV.INI) contains settings specific to the Checker service, such as the specified Interval for running the service, whether a log file is kept, and the names and locations of textbases to be checked.

DBCHKSRV.INI is created by the software when you click **OK** in the Inmagic PowerPack Textbase Checker Settings dialog box. It is located in the folder specified in the InmServices.INI file (see above).

Note: In general, you should use the user interface to change the service settings, rather than editing the INI file. The instructions below are provided because the only way to change the maximum number of textbases is by editing this file.

To edit DBCHKSRV.INI

1. Close the Inmagic PowerPack Textbase Checker Settings dialog box.
2. Use a text editor to open DBCHKSRV.INI. (If you are not sure where the file is, look at the InmServices.INI file, explained above.)
3. Make the desired changes. For example, to change the maximum number of textbases that can be added to the Textbases to Check list (the default is 50), add the TextbaseMaxCount= parameter to the [Textbases] section and specify any number up to 100.
4. Save and close the file.
5. Restart the service in order for your change to take effect.

Checker.LOG File

The Checker log file records service activity, such as time started and stopped. This file is generated if you select **Use Checker Log File** in the Inmagic PowerPack Textbase Checker Settings dialog box.

By default, the file is called CHECKER.LOG and is saved in the location specified in the Inmagic PowerPack Textbase Checker Settings dialog box. To specify a different name or location, click the **Specify Checker Log File** button.

Best practice is to always use a log file, call it CHECKER.LOG, and keep it in the same location as the DBCHKSRV.INI file.

Whenever there is activity, new information is appended to the end of the log file. You may occasionally want to delete the file, if it becomes very large. A new one will be generated the next time the Checker starts (if **Use Checker Log File** is selected).

You can examine the log file to determine whether the Checker has finished checking textbases (so other people can use them), and how long the longest check takes. The log file is also useful for determining why a check file (.CHK) might be missing or incomplete (for example, someone may have had the textbase open during the starting interval, so the textbase was not checked).

This is the last page of the *Inmagic PowerPack v13 Textbase Checker Service User's Guide*.