



## Maintaining BCC Mail Manager Performance

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Using any software repeatedly and heavily over time can cause any environment to become slow. Customers routinely ask how to improve the performance of BCC Mail Manager and why it becomes sluggish over time. Below are simple suggestions to help improve the speed and performance of BCC Mail Manager.

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### ANTI-VIRUS / MALWARE

Without these utilities, systems would be vulnerable to any number of attacks that could damage both business and reputation. Using a good tool is the first step to protecting yourself and your business. Additionally, having it configured properly is critical. We recommend setting an exclusion on the directories where BCC Mail Manager and referenced lists are stored. Typically, anti-virus software checks a file when it detects that the file may have changed, which can result in additional overhead that can directly cause your system to slow down. A recent customer who made this change commented that their systems have improved close to 20 percent.

### NUMBER OF ACTIVE LISTS

If opening your directory of available lists takes more than a few seconds, consider cleaning up the lists that you keep available. Every time you open a list, BCC Mail Manager verifies that it is accessible and the date each list was last modified. List Packaging is a program that helps you archive your list. With this, you can easily create an archive that can be unpackaged at any time to restore the list and its associated saved data such as selectivities, indexes, user defined reports, saved presorts, etc. List Packaging can even be used within TaskMaster, so cleaning up the system can be automated. A current customer experienced a delay of

minutes when trying to open a system with thousands of lists; once they were cleaned up, the responsiveness was immediately better.

### NUMBER OF MISSING LISTS

The more lists that are missing from within the open list dialogue, the longer it takes for the system to respond. Every list you have in the system has to be verified as present and accessible, so having missing lists only adds time to opening list of lists.

Removing entries that indicate a missing list is easy to do by opening *BCC Mail Manager > File > Delete Lists*. Once the *Delete List* dialogue opens, you can select *Tools > unselect 'Display Present Lists'* and *'Display Compressed Lists'*—this will leave you with just lists the system cannot find. Next, select *Tools > Select All* and then delete the selected lists. This might take a few minutes but it will allow for a significant improvement to responsiveness.

### HISTORY TABLE

A history table keeps track of various entries when processing is performed and is in *\Data Files\history.dbf*. This file can grow significantly depending on the volume of processing you are doing, as every process records an entry of what was performed.

If you want to see what information is recorded, you can select *Maintenance > List Properties* when a list is open and then look at the history tab. You will see entries for all of your processes—this helps to serve as a reminder of what has or has not been completed. You can simply delete *history.dbf* and lose the historical data of what has been processed or you can archive the history table. Archiving allows you to specify how many days to keep data or how large to let the table get.

Recently, a customer had a history table of 132MB and when running dozens of jobs, was receiving an “out of memory error” and slow responsiveness when generating presorted labels. By archiving their history table, we saw an immediate difference in improving speed and no occurrences of “not responding.”

### **SORT FOLDER**

The sort folder is used heavily for both ZIP + 4® Encoding and Enhanced Merge/Purge. If you are running a network installation, you could be further impacted if the sort folder is referencing a network location. It is recommended to use a sort folder that is located on a local hard drive and to consider putting the sort folder on a second hard drive if your system is configured with multiple drives.

Changing the location of your sort can be done by opening *BCC Mail Manager > Configure > Preferences > Filename & Folders*. Additionally, if there are files in the sort folder after BCC Mail Manager is closed they can be deleted as they are left over from another process that didn't complete.

### **ZIP + 4 FILE LOCATION**

The placement of the ZIP + 4 files is critical to increase your performance of BCC Mail Manager.

These files, which total over 2GB in size, are referenced frequently to ensure all files are still active and available. The various files making up these directories are read every time the application is opened and when lists are opened and closed. Locating these files on a local drive is essential to maximizing performance because locating these files on a network drive can cause a delay in reading the files across the network. For best performance, locate the ZIP + 4 files on a local drive that has a high read rate such as a solid state drive or thumb drive. Even users that have a network installation can

take advantage of this tip by installing the directories on their local machines. The only drawback for a network user to have the directories locally would be the monthly updates would have to be applied to each workstation.

### **GENERAL MAINTENANCE**

For customers that run TaskMaster jobs via Job Manager, command line calls, or other integrated solutions, it is important to close BCC Mail Manager down completely on a regular basis. There are a few maintenance routines that occur when the application opens and closes. Some of the routines that occur are table maintenance on a variety of underlying tables used such as *MailList.dbf*, *History.dbf*, *NetHist.dbf* and other underlying used files. This maintenance is important as it helps to clean up unused references or archives of the history data so that file sizes are kept as small as possible, which reduces the time necessary to use the files during production runs. A note for network users is that all clients must be logged out. If you look at your running processes you should NOT see any *MailMan.exe* running. If you are using Job Manager or another solution that uses command line calls, you don't have to worry about opening BCC Mail Manager as it will automatically start when the next job is launched.

### **HARDWARE CONSIDERATIONS**

Not all computer equipment is created equal. There is a difference in hardware and you usually get what you pay for. BCC Mail Manager is an I/O intensive application that when configured properly can provide you an incredibly fast application for your data processing needs.

- » **CPU** – Having the fastest processor isn't necessary but doesn't hurt. You'll want to have a processor with a decent amount of system cache—more than 2MB.

- » **Memory** – Just having Windows installed on your system requires you to have enough RAM available so that the operating system and applications can run properly. It is recommended that you have between 6GB and 8GB installed.
- » **Hard Drive** – The single most important piece of hardware. Because BCC Mail Manager is an extremely I/O intensive application, we recommend solid state drives or RAM drives which provide the highest read/write capabilities.

Bringing all your equipment together in a cohesive configuration is the next step. Use of multiple hard drives is highly recommended. Spreading out the installation across those drives will yield the best performance. Maximum performance will be achieved by installing the application itself onto the same drive as the operating system but installing the ZIP + 4 directories and lists to different drives.

Placing the application in the same directory as the operating system while placing the ZIP + 4 directories and lists onto separate drives will spread the I/O across multiple drives. Remember to set your anti-virus/malware application to exclude the locations of the directories.

### TEMPORARY FILES

There is a chance that Windows applications will leave a variety of unnecessary files behind. Cleaning up those unneeded files can recover significant disk space and allow for overall performance of the system. There are two locations to check when looking for temporary files; *C:\Windows\Temp\* and *C:\Users\<username>\Local Settings\Temp\*. If you have all of your applications closed you should be able to safely remove all files and sub-folders. If there are files or directories that will not delete you can try rebooting into Windows Safe Mode

with Command Prompt and try to remove anything remaining. If you are unable to remove these files you will want to contact your IT department.

### LIST INDEXES

Processing a list with an index puts you at risk for slowing the processing down. If you have a number of indexes on the list you will see responsiveness and performance decrease exponentially. The reason for this is that the list will update the index(es) as the records are updated. A common scenario that customers complain about is poor performance during ZIP + 4 encoding. That is because after each record is encoded the associated indexes are rebuilt. If you have 100,000 records, a lot of additional processing has to happen. The best answer for this is to remove all indexes from the list prior to ZIP + 4 encoding or performing a Modify Selected Records. The indexes can be added before the process that needs it. The handling of indexes can be automated with TaskMaster so that you can add or delete the indexes on the fly so that your overall performance isn't affected.

### ABOUT THE AUTHOR

George Vaisey, Director of Professional Services, has been with BCC Software for more than 20 years and currently manages the Professional Services Team, responsible for pre-sale and post-sale engagements, training, and consulting.