4.30 Optimizing Your Data for Performance

Introduction

Over a period of time, you may collect data that has no value. For example, this might be previously processed delivery orders; detail sales data from five years ago, etc. This document will explain how to set up and maintain your Route Manager system so that old data will be frequently cleaned out to keep your system running at its best.

Overview

Are you starting to feel that your Route Manager software is getting more and more sluggish? Do things seem to take 'forever' – especially when you are waiting? Would you like some tips on how to fine tune your system to go faster?

It is no secret that any computer – over a period of time – gets slower and slower! Indeed, some of that is natural as any system gets more data, more users, larger programs, etc., it will slow down. Route Manager is no exception. Here is a step-by-step process that you can follow to improve your system performance.

Technical Information

FoxPro is the database used in Route Manager. It has some limitations that may not be found in other systems, such as:

► A single file cannot be larger than 2 Gigabytes.

► There may not be more than one billion records in a single data file.

This includes database files (.DBF), memo files (.FPT) and compound indexes (.CDX).

Once a data file exceeds any of these limits, strange things may happen. You may get errors or data may just 'mysteriously' disappear. Often times the errors that you receive will have nothing to do with the events that are happening.

Because of this, you need to know ahead of time if tables are getting full. This will eliminate and strange errors and also keep your system working quickly.

What we can do to help?

Advantage Route Systems can help you in two ways:

1. We have created numerous tools that you can run yourself to monitor the state of your system. This will allow you to be on top of the process and not let things get out of hand.

2. If you need help setting the tools up or want us to take a more active role in the process, we are here to help you. Call our normal support numbers or email us to reach a technician who can work with you – one-on-one – to keep *your* system at its best.

Automated Processes

We have included a series of archiving utilities that take place automatically based on settings established within Branch Setup. These will be discussed in more detail below.

Data Clean-up

We automatically purge deleted records during packing data files, rebuild data files, and RM program updates.

What you can do to Help?

Periodically purging deleted records by selecting Rebuild Data Files.

Create external Backups.

Periodically defragment your hard drive.

Ensure that you have adequate hard drive space by removing unneeded files such as old downloaded files, backups, etc.

Make sure the Logging and Optimizations tabs in Branch Setup have been setup to only keep data for recommend time frames, rather than keeping ALL data.

How to Use this Document

Since this document can be used by both an ARS technician and you, we can work together to ensure that you are getting the most out of your RMA program. Continue to the next section to be guided through all of the available options that will help you optimize RMA and ensure that you are using all of the optimization settings and are following the best practices to get RMA working for you at a faster speed.

We will do our part when we connect to your workstation or server during your next tech support call. Or, you can contact us and we can diagnose your system and make recommendations on the best course of action.

There are two major sections in Route manager where you can establish various data logging rules:
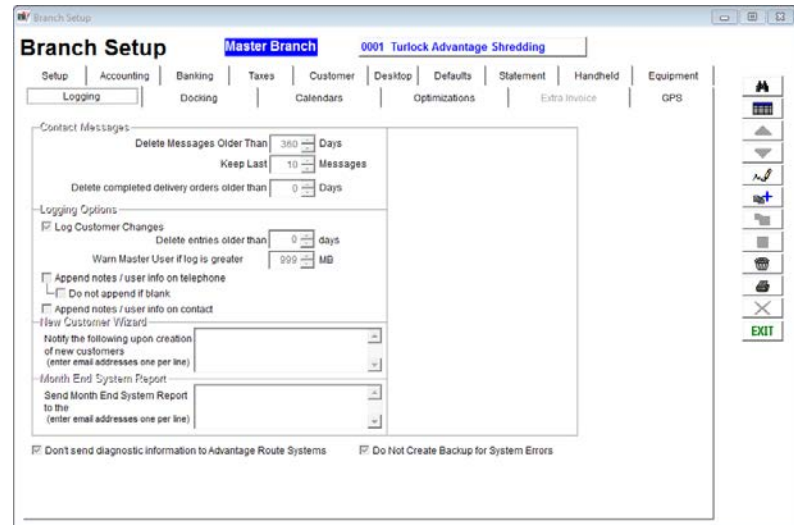
- Branch Setup > Logging Tab
- Branch Setup > Optimizations Tab

These will be discussed below.

Branch Setup – Logging Tab

RMA includes built in functions to help eliminate old data and keep your system tuned for optimal performance.

These options can be found under *File > Branch Setup*, on the *Logging* tab.

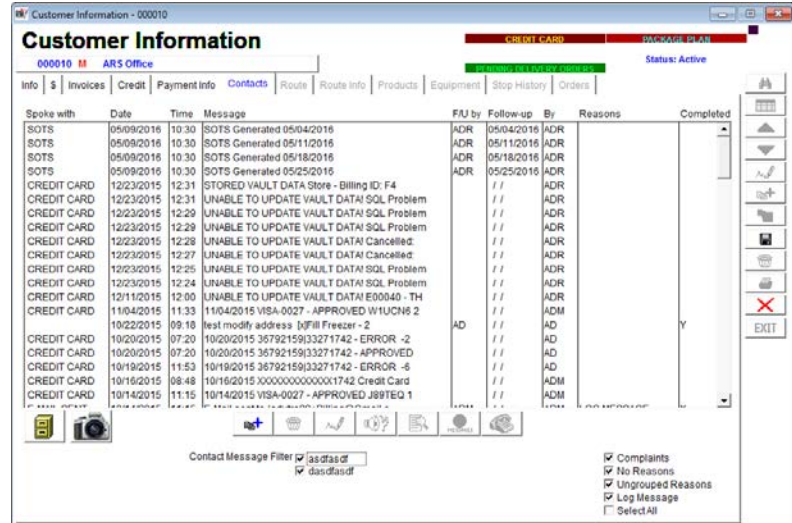This tab allows you to control the size of the following files that can grow fairly large and slow down your system:

1. Contact History
2. Delivery Orders
3. Customer Changes

In addition, you can email a *Month End System Status Report* to any user. This report will inform you of large files and other items of importance when maintaining an optimum system.

Each item and their recommended settings are included in this section.

Contact Messages

Contact Messages can be found within the *Contacts* tab of each customer's account and will contain a wide variety of messages and activity:

By establishing default deletion settings on the *Logging* tab you can control how long to keep messages and how many:

You can choose to delete messages after 700 days, for example. We typically recommend 365 days. Additionally, you can establish the default number of messages to keep on the account -- we recommend 10.
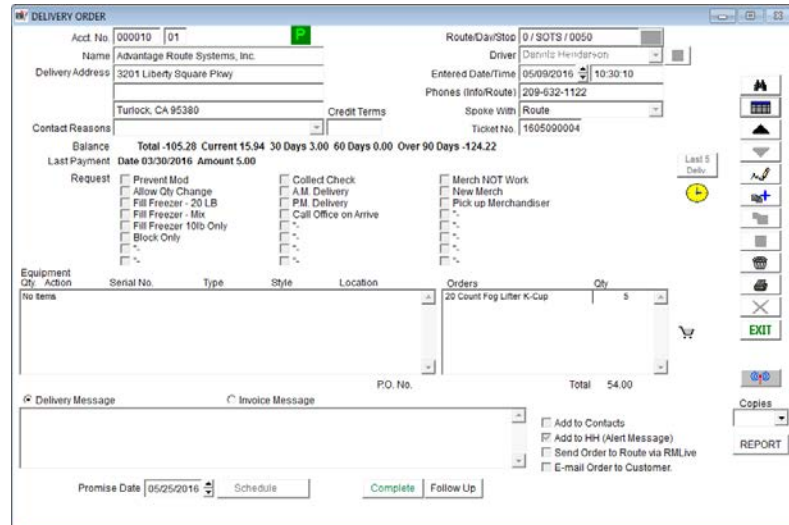
> **NOTE:** Additional options for closing Contact Messages that are open in the system is covered later in this document.

Delivery Orders

Delivery Orders can be found within the listed within each customer's account, and accessed by touching the yellow phone on the module bar:

These orders are not removed from the system once they are completed and will begin to slow down the system as a large volume of them accumulate in the system.

By establishing default deletion settings on the *Logging* tab you can control how long to keep the completed orders in the system (60 days recommended):

Logging Options

If *Log Customer Changes* is enabled, every time an employee makes a change to a customer account, it will be stored in the system and can be later reviewed under the *Log Report* (Found under *Reports > Communication Reports*). However, you will not typically want keep this changes forever, as this file can be quite large. On the Logging tab, we have a few options for Logging:

- Delete Entries Older than "X" Days
- Warn Master User if Log is Greater than "X" Mb.

Delete Entries Older Than…

To maintain a lean system, we'll want to establish a maximum number of days to keep customer log

changes around. Since data is changed frequently, we suggest using a setting of 60 days.

During period close, the logged data will be automatically marked as deleted if they are older than the number of days set here.

Warn Master User…

If you'd also like to monitor the size of the log file, you can optionally warn the Master User accounts if the log files go over a certain size (in Mb, Megabytes). During login, if the log file is larger than this size, the Master User accounts will be shown a popup message letting them know. We recommend setting this warning at 25Mb.

Example warning:
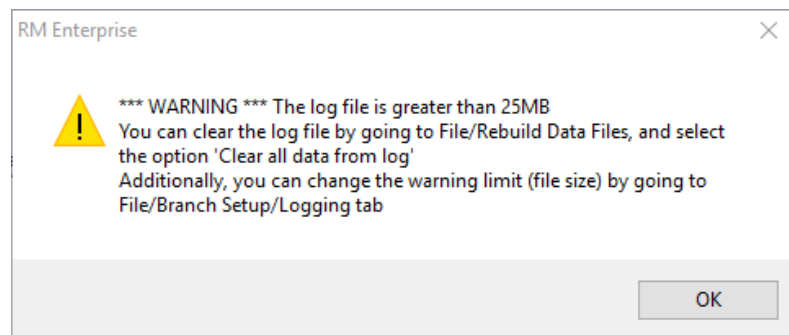
As the warning explains, users can clear the log by going to *File > Rebuild Data Files*, and choosing the *Clear All Data From Log* option.

Month End System Report

You can also choose to be sent a system status report during each month end. Simply enter an email address in the Month End System Report field. This will give you information on your current version, drive space, program info and other various warnings, such as a soon to be expiring Day Label Calendar. An example of a Month End Report is shown below:

```
Month End System Report

Program Version/Build
RM Enterprise v7.0.2t (8612) - Server 2016 Testing

RMA Serial#: 111111111111111111111111111111
Program Expires: 01/01/2017
CI CODE: ARSPROP
Industry: Propane Bulk
HH Licenses: 4 / User Licenses: 5

Period: MO_MAY 2016
SYSTEM DRIVE " SPACE: OK (36.9GB) Free

RMA PROGRAM DRIVE " SPACE: OK (36.9GB) Free

RMA DATA DRIVE " SPACE: OK (36.9GB) Free
```
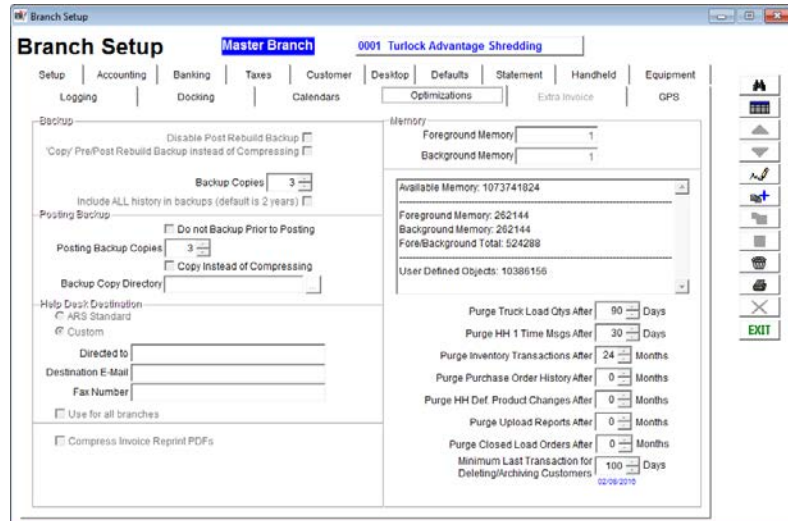
Other

Do Not Create Backup for System Errors disables the automated backups created during Posting when there is an open item balance error. These backups are used by Advantage Route Systems to assist in tracking down what causes the balance errors.

Branch Setup – Optimizations Tab

The Optimizations Tab has another set of options that can be set to help you reduce your old data. These settings will automatically delete data after the set time frame during Period Close, but a Pack or Rebuild Data Files will be necessary to permanently purge the database of the data.

Purge truck load qtys: Select the number of days to keep Truck Load quantities. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 90 days.

Purge HH 1 Time Msgs: Select the number of days to keep Handheld One time messages found in Customer Information > Route Tab > Messages section. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 60 days.

Purge Inventory Transactions: Select the number of months to keep Inventory History. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 24 months.

Purge Purchase Order History: Select the number of months to keep Purchase Order History. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 24 months.

Purge HH Def. Product Changes: Select the number of months to keep default product changes on a stop. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 24 months.

Purge Upload Reports Select the number of months to keep the PDF Afternoon Report copies for reprinting purposes. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 24 months.

Purge Closed Load Orders: Select the number of months to closed Load Orders. Any information that exceeds this setting, will be automatically marked as deleted during Period Close. We recommend setting this to 12 months.

Minimum Last Transaction for Deleting/Archiving Customers: When using the Archive Customer feature, set the number of days a (now terminated) customer must have had a delivery within to not archive them. If they are terminated, and have not had a transaction within this date range, the account will be archived.

When Does the Data Go Away?

Your Route Manager system always processes the data file cleansing during the period close function. Each month, when you do *Transactions > Close Period*, the system looks at your settings and then eliminates data that is too old or too large automatically based on the settings discussed in the previous two Branch screens. This can only happen if you have valid data in the fields in Branch Setup.

Period Close

If any data is found that is older than the established date in Branch Setup, the data will be marked as deleted.. The data is not permanently removed from the system until a Pack, Rebuild Data files, or RM Update is ran.

Year End:

When performing a Year End close, the contact messages for that year are all archived to the year folder. This allows for a clean Contacts file that should have plenty of room for all your new contact messages in the upcoming year.

Clearing out old Delivery Orders

Each time you take an order from a customer, you create a delivery order. These are used to plan work, let drivers know what needs to be delivered, etc. If the driver services these stops using the Special entry that is added to their handheld, they would automatically close. But if a driver is doing hand tickets, or off route calls, and during invoice entry the Ticket Number is not associated with the invoice, the order will be left open. You can, with this utility, close out all open orders quickly, based on the date range and other criteria at the bottom of the screen.
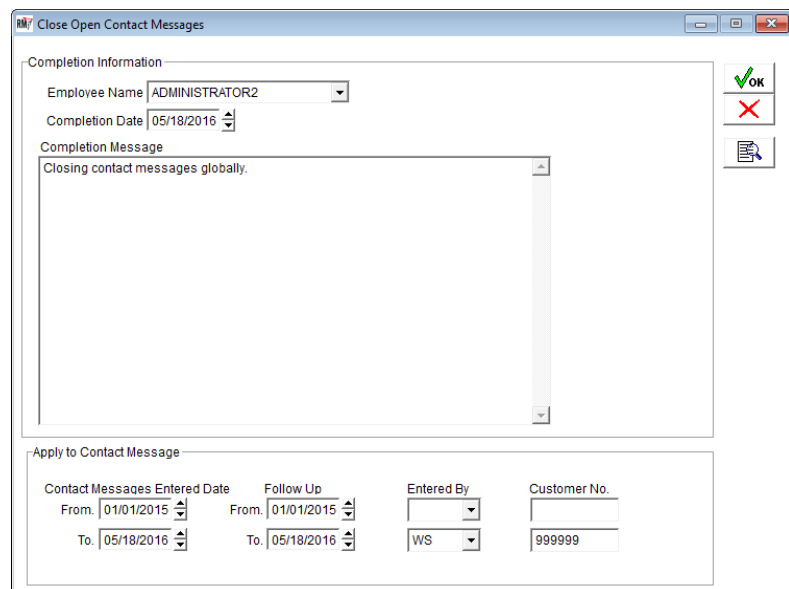
Clearing out old Contact Messages

One big problem you can have is too much data in your Contact Messages file. This can be especially true if you have many automated messages coming into the file from:

▶ Invoice copies sent

▶ Equipment exchanges

▶ Product Changes

▶ Phone calls

Similar to Delivery Orders, Contact messages can be set to be followed up on by employees. If they don't properly mark the Contact Message as complete, those warnings may still show up days, months or even years later. With this utility, you can close open Contact Messages quickly by using the search criteria at the bottom.

Archiving Customers

Over a period of time, you have customers come and go. It is important to periodically to clear out the dead wood so you do not have thousands of inactive customers. While we agree it is important to keep some data for a few years, but really, do you need data on a customer who paid their bill and quit in 1999? The process of eliminating these accounts is called "archiving". In the latest releases, we have made these routines better and easier to use. Even when an account is archived, you can still pull up information on them, but it is in a different area that does not affect your daily performance.

> **NOTE:** There is an entire Supplemental manual dedicated to this process. It is, 3-16_Archiving-Removing_Terminated_Customers.doc. You will want to go through this guide carefully and then do this process.

We recommend that you Archive Customers once per year.

Looking for Old Data

In addition, you may find when you go to File Explorer (or My Computer), that there are many unneeded files in your Route Manager folder. These can include:

► Old backups
► BAK and TMP files
► OLD files
► Other Junk

For assistance with cleaning out these files, please contact a Support representative at Advantage Route Systems.

Things you can do outside of Route Manager

Outside of Route Manager, there are hardware things you can do to speed up your system:

1. Run Defrag. This is a windows utility that organizes data on your hard drive more efficiently.

2. Add more memory to your computer. If your server has only 1GB of memory and you have added more users, then you may want to bump that to 4 GB, for example.

3. Increase the speed of your network. Most computers today come with a 1GB network card. A few years ago they were a slower 100mb or even 10mb data transfer speed. Make sure that all computers are running at 1GB and you have a 1GB switch.

4. Upgrade your hard disk drive to a SSD – Solid State Drive. These have become amazingly affordable and easy to use. The Route Manager database is very demanding on your hard drive, so this can yield huge benefits.

5. If running Route Manager over the network using Mapped Network drive, converting over to a Terminal Server and Remote Desktop will significantly increase performance.

Conclusion

Nothing is more aggravating or expensive than having a slow computer.

Finally, our tech support team can also help you find ways to make your system go faster. Feel free to give them a call if you are getting tired of waiting!

We look forward to helping you keep your system at its optimal performance. Just a little bit of maintenance can help you save many hours each week.

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Warning

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