

Technical Bulletin

ScanMaster: Upgrading from 1.01.06 to 1.02.02

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The procedures for this document outline the upgrade to ScanMaster version 1.06.01 from version to 1.02.02.

If upgrading from ScanMaster version 1.02, the conversion instructions are found in the Cnvert122.pdf file in the \DOCS folder.

To Your Success,

Bart

*Bart Woodbridge
ScanMaster Support*

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Preparing to Upgrade to 1.02.02

Note: You may perform these steps up to 24 hours prior of the upgrade. It is recommended that the following utility programs be performed at off-peak hours.

Prior to upgrading to ScanMaster 1.02, several preparatory steps must be performed on the Server to ensure a smooth conversion. These steps involve running a pair of ScanMaster utility programs and printing off a ScanMaster report. They include:

- Running the GRCWIFIX.EXE program
- Running the CLEANMVT.EXE program
- Ad Level Movement Considerations

Running GRCWIFIX.EXE

This program checks the ScanMaster item file and removes any invalid characters from item fields. It is located in the following path:

C:\Grocery\GRCWIFIX.EXE.

Follow the steps below to run the GRCWIFIX program.

1. Open a DOS window.
2. Go to the C:\Grocery directory, type **btrieve /p:2048** and press **Enter**.
3. If the Btrieve software is already loaded on the system, the following prompt displays: "Program Already Loaded." If Btrieve is not loaded on the system, the software is now loaded and the copyright and version information displays.
4. From the DOS prompt, type **GRCWIFIX** and press **Enter**.

The Item File Repair screen displays.

5. Use the arrow keys to navigate from option to option and the spacebar to select an option. Choose the Drive **F:** option.

6. Press **Enter** to continue.

The following message displays:

```
You have chosen to perform item file repair on the file on Drive F.
Is this Okay?
```

7. Using the Tab key, select **Yes** and press **Enter** to initiate an item file repair.

Note: This process may take several minutes or longer to complete, depending on the size of your item file.

8. After the process is complete, leave the DOS window open and proceed to the **Running CLEANMVT.EXE** section of these directions.

Running CLEANMVT.EXE

This program compares the ScanMaster movement file with the item file and removes any movement records that do not have a corresponding item file record. This program is located in the following path:

C:\Grocery\CLEANMVT.EXE

1. From C:\Grocery prompt, type **CLEANMVT** then press **Enter**.

The program is initiated.

2. When the program is completed, a DOS window displays.
3. Type **Exit** and press **Enter** to close the DOS window.

Ad Level Movement Considerations

One ScanMaster Data File that is not converted is the Ad Movement file (Admove.btr). Data in the old file is not converted because new fields were added in the new release. As a result, existing ad level movement is not migrated with the upgrade. To retain old ad level movement, it is recommend that users print out a copy of the most current ad level report. The data cannot be retained electronically, but at least users will have a printed hard copy of the movement to that point in time.

Checking Items before Upgrading

Before upgrading, be sure that you have the following software.

- **ScanMaster Installation CD-ROM** - Version 1.02.02
- **Microsoft CD-ROM - NT Service Pack 6a** (or the latest NT Service Pack certified with ScanMaster). To determine the Service Pack installed on an NT 4.0 system: log on as the administrator, click on **Start**, click **Programs**, click **Admin Tools**, click windows **NT Diags** and look under the version tab.

OR

- **Microsoft CD-ROM Windows 2000 Service Pack 2 and Q262798_W2K_SP2_X86_EN.EXE**. To correct the keyboard lockups, Q262798_w2k_sp2_x86_en.exe is installed by the ScanMaster install to the C:\Grocery folder. To determine the Service Pack installed on a Windows 2000 system, go to the Desktop and right click on **My Computer** and look under the general tab. This program requires that Service Pack 2 be installed prior to executing. Run this program after upgrading ScanMaster on the server.

Shutting Down Server Processes

Warning: If you are performing this conversion while the store is live, it is important that you plan the upgrade accordingly. First you must place all registers in "offline mode". Please note that EFT Transactions will be temporarily disabled. Once the register files are converted, perform register upgrade initially in selected lanes that are presently closed. You will move your cashiers to these lanes once the upgrade on these registers is completed. These registers will continue to operate in "offline mode" until the server is upgraded. Allocate enough lanes based on customer volume. Once the cashiers have been moved to these upgraded lanes, close the lanes from which they came and place their non-upgraded workstations in "online mode" for consolidation to take place. Once the server and backoffice workstations are upgraded, you may move these upgraded registers back "online". Lastly, you will perform the following register upgrade on the remaining POS workstations.

The ScanMaster 1.02 upgrade process begins at the ScanMaster Server. Before installing upgrade software, several system processes must be shut down on the Server. Follow the steps below to shut down those processes:

1. Shut down all applications on the system, including any windows programs and all ScanMaster applications.
2. From the Server, press **Ctrl+Alt+Del**, then click **Task Manager**.
The Windows NT Task Manager screen displays.
3. Click the **Processes** tab to display a list of Windows NT processes.
4. Search for and shut down the following processes:
 - NTVDM
 - W32MKDE
5. Close the Task Manager

Installing 1.02.02 POS Workstation Software on the Server

The ScanMaster POS Workstation software must be installed on the server. Once in place, they will be later copied to the workstation across the network.

1. With the ScanMaster 1.02.02 CD in the CD-ROM Drive, from the task bar, select **Start** → **Run**.
2. Click **Browse**.
3. Look in the **CD-ROM** drive.
4. Double-click the **InstReg2Server** folder to display the contents.
5. Double-click **SETUP.EXE** and click **OK** to launch the ScanMaster workstation install procedure.

The ScanMaster register install screen appears.

6. Click **Next**.

The Application Drive Letter is requested.

7. Enter the application drive (typically "C:" unless manually configured previously) and click **Next**.

The Choose Destination Selection screen displays.

8. Enter the mapped shared drive on the server (typically "F:" unless manually configured previously) and click **Next**.

The Confirm Selections screen displays.

9. Click **Next**.

The files are copied to the REGINSTL directory on the mapped, shared drive of the server and the completion screen appears.

10. Click **Finish**.

Converting POS Workstation Files

The next step in the conversion/upgrade process is to run a conversion program that takes existing POS workstation files and make them compatible with the ScanMaster 1.02.02 software. This involves converting .BTR files to .REG files. ScanMaster files affected through this process include item file, department file, subdepartment, customer file, electronic coupon file, and the receipt coupon file.

This conversion takes place on the Server when the user runs the REGCONV.EXE program.

Follow the steps below to convert POS workstation files.

1. Click **Start**, followed by **Run** from the Microsoft Windows Task Bar.

*The **Run** dialog box displays.*

2. Type **C:\Grocery\Regconv.exe** and click **OK**.

A message alerting the user to shut down all applications displays.

3. Since all System Processes were shut down earlier in the conversion, click **OK** to continue.

A message informing the user of the amount of disk space required and the amount of disk space available displays.

4. Click **OK** to continue.

The ScanMaster File Conversion Selection screen displays the files to be converted.

5. Click **Convert Selected Files** to begin the conversion.

POS workstation files are converted. This process may take several minutes depending on the number of records in each file.

6. Click **Exit** when the program stops and all of the files are converted.

Installing ScanMaster v1.02.02 on the Registers

Follow this procedure to upgrade ScanMaster on the POS Workstations.

1. Connect a keyboard to the POS Workstation and reboot the workstation. When you see the Starting MS-DOS message immediately press the **<F8>** key.
2. Enter **Y** to load each line of the batch job until you reach the "NET USE" line.
3. Enter **Y**.
4. Hold down the **<CTRL>** key and press **<C>** to break out of the batch job.
5. Enter **Y** to terminate the batch job.
6. Type **CD** and press **Enter**.
7. Type **F:** and press **Enter**.
8. Type **CD\REGINSTL** then press **Enter**.
9. Type **SM122INS F** (with a space between the "S" and "F") and press **Enter**.

The ScanMaster v1.02.02 Register Install screen appears with the "Perform Upgrade instead of Install?" question appearing.

10. Enter **Y** for Yes.

The "Is this a Dynakey Install?" (y or n)" question appears.

11. Enter **Y** for Dynakey **N** for 64 key or Falcon -7445

The "Enter No. Of Install Type" question appears.

1 - No EFT

2 - Concord

3 - Xinetix

4 - EPI

12. Enter in the appropriate number for your system.

The "Is this an upgrade from? 1- 1.01.06, 2-1.02.00" question appears.

13. Enter **1** for 1.01.06.

The "Will Grocery.exe be run from RAMdrive" question appears.

14. Enter **Y** for Yes or **N** for No.

If you answer Yes, then you must still manually edit the Autoexec.bat file to set the RAMdrive allocation. See the "Setting the RAMDrive Allocation" section below to determine the ideal RAMdrive setting based on your system.

The upgrade copies all converted register files over the network from the server to the register begins the software installation. After copying the files, the following message displays:

"Installation of ScanMaster is now complete. Version 1.02.02."

15. Reboot the register.

Note: For lanes you wish to keep open during the upgrade steps, reboot the POS Workstation now and bring the lane up in "Offline Mode". Close the lanes that were open during this first part of this installation and that have yet to be upgraded. Place them back in "On-Line" mode in order for consolidation to take place.

Warning: ScanMaster 1.02.02 has additional register memory requirements above those required for version 1.01.06. If your register comes up "Out of Memory" you will need to re-optimize your register's Autoexec.bat and Config.sys files. Sample "memory-optimized" files are installed in the server's F:\REGINSTL\REGISTER directory. A folder exists for each register model number (with sub-folders for the varying 7452 models) and contains up to 4 files:

Autoexec.tmp – Optimized Autoexec.bat file

Config.2x – Optimized Config.sys for workstations with 2x20 displays

Config.CID – Optimized Config.sys for workstations with CID displays

Config.non – Optimized Config.sys for workstations without 2x20 or CID displays

View these files (using NOTEPAD) and manually edit corresponding sections of the register's Autoexec.bat and Config.sys files to comply with these optimized settings. Please maintain any previously customized hardware settings.

Upgrading ScanMaster at the Server

Warning: Back up all data files before beginning the upgrade!

Preparing to Upgrade

1. Reboot the server.
2. Run the "Backup The Server" Tape Backup Utility from the System Services Menu.
3. Turn off all ScanMaster applications, including Electronic Journal.
4. Power off all ScanMaster Back Office Workstations.

Applying Microsoft Windows NT Service Pack 6a to the Server

Service Pack 6a (SP6a) resolves the SP6 issue with Lotus Notes and other Winsock-based applications and provides the latest updates to Microsoft® Windows NT® Workstation 4.0 and Windows NT Server 4.0 (including Enterprise Edition). SP6a contains known Year 2000 updates for Windows NT 4.0. You can obtain a copy of Service Pack 6a at the following website:

<http://www.microsoft.com/ntserver/nts/downloads/recommended/SP6/default.asp>

1. Insert the Microsoft Windows NT Service Pack 6a CD into the CD-ROM drive.
2. If the CD does not autorun, double-click on **My Computer** and then the **CD-ROM drive**.
3. Double-click on **Sp6a**.
4. Double-click on **Msnt128** to extract the proper files.

The Windows NT Service Pack Setup window displays.

5. Check the **Accept the License Agreement** check box and click **Install** to install the service pack.

The Windows NT Service Pack Setup launches. This may take several minutes.

When the installation is complete, you will be prompted to restart your computer.

6. Click **Restart**.

The computer restarts.

7. Log in as **Administrator**.

Upgrading ScanMaster on the Server

Ensure that you are logged on to the server as the Administrator.

1. From the Server, press **Ctrl+Alt+Del**, then click **Task Manager**.

The Windows NT Task Manager screen displays.

2. Click the **Processes** tab to display a list of Windows NT processes.
3. Search for and shut down the following processes:
 - NTVDM
 - W32MKDE
4. Close the Task Manager
5. Insert the CD labeled **ScanMaster Version 1.02.02** into the Server CD-ROM drive.

6. From the Task Bar, click **Start→Run**.

The Run dialog box displays.

7. Click **Browse**.
8. Look in the **CD-ROM** drive.
9. Double-click the **SMInstall** folder to display the contents.
10. Double-click **SETUP.EXE** and click **OK** to launch the ScanMaster installation procedure.

The ScanMaster Welcome window displays.

11. Click **Next** to begin the installation.

The Choose Installation Type window displays.

12. Select **Server - Upgrade** then click **Next**.

The Confirm Selections window displays.

13. Click **Next** to continue.

ScanMaster is loaded as the progress bar appears. When finished the update complete message appears.

14. Click **OK**.

The reboot message appears.

15. Select reboot now option and click **Finish**.

You have successfully upgraded ScanMaster on the Server.

Converting the Customer and Electronic Coupon files

ScanMaster Version 1.02.02 requires that the customer (grccust.btr) and electronic coupon (grcpoint.btr) be converted.

1. Click Start, followed by Run, from the Microsoft Windows Task Bar.

*The **Run** dialog box displays.*

2. Type **C:\Grocery\SRVCONV.EXE** and click **OK**.

The “Make sure all applications are shut down” window appears

3. After shutting down any applications that are running, click ok.

A message box appears, “If any files show as not converted. Select Convert Selected Files, otherwise Exit.”

4. Click **OK**.

The application will open with Electronic Coupons and Customer file marked.

5. Click **Convert Selected Files**.

When files are finished converting, a message box will appear, "Points and Bonus Points work differently in V1.2.0. Points and bonus Points can now be in the Item File. Move Points from Coupon File to Item File? Y/N"

6. Click **Yes** or **No**.
7. Click **Exit**.

Converting the Electronic Journal Database

ScanMaster Version 1.02.02 maintains the Electronic Journal database in BTRIEVE rather than VB/ISAM. The conversion application will convert all zipped and unzipped EJ database files. If the database was zipped prior to the conversion, it will be converted and re-zipped.

Note: The program will convert all EJ databases in the F:\JOURNAL folder. To save time, backup and remove all EJ databases no longer needed before beginning the conversion.

Ensure that you are logged on to the server as the Administrator.

1. Click **Start**, followed by **Run** from the Microsoft Windows Task Bar.

*The **Run** dialog box displays.*

2. Type **C:\Grocery\EJ2BTRCV.EXE** and click **OK**.

The conversion program executes and finishes.

Installing the Electronic Journal

Note: This software should *only* be fully loaded on *one* computer on the ScanMaster system, preferably a workstation PC. Electronic journal reports, however, can be run from any workstation on the system or from the server. Choose the "Reports Only" option for these installations. *Log on as the Administrator when loading this software!*

Follow the steps below to install the ScanMaster Electronic Coupon software.

1. Insert the **ScanMaster 1.02.02 CD** into the CD-ROM drive.
2. From the NT Task Bar, click **Start → Run** to display the Run dialog box.
3. Click **Browse → Common → Electronic Journal**.
4. Double click **Setup** then click **OK** to display the Electronic Journal Welcome screen.
5. Click **Next** to display the Electronic Journal Installation Type screen.
6. Two installation types are available.

If this computer is to run the EJ Processor, click **"Install All EJ Files"** to load the EJ Processor. *Install this option to only one computer in the ScanMaster system.*

If you are just running EJ Reports from this computer, select the **"Install Only EJ Report Files"** option.

7. Select the desired install option then click **Next** to continue.

Electronic Journal files are copied onto your system.

8. Click **Finish** to complete setup.
9. From ScanMaster at the Server or a Back Office workstation, use **System Personalization** to change these settings:

Back Office Control File	# OF DAYS OF TLOG TO SAVE EJ REPORTS USE EHNCD ELC COUP ELECTRONIC JOURNAL INSTALLED ENABLE EJ PROCESSOR ON THIS PC HIDE NRT TOTALS FROM EJ RPTS THIS PC PROCESSES TLOGS
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The Electronic Journal module is installed. It becomes active after the Server is restarted.

Note: If you do not have a Back Office Workstation, you may now bring all POS Workstations back "On-Line" that were previously upgraded to 1.02.02. If you have performed the upgrade while the store is live, proceed with upgrading the remaining POS Workstations.

Upgrading the Back Office Workstations to 1.02.02

Warning: Back up all data files before beginning the upgrade!

Preparing to Upgrade

1. Bring all POS Workstations back "On-Line" that were previously upgraded to 1.02.02.
2. Boot up the Back Office Workstation
3. Run the "Backup The Workstation" Tape Backup Utility from the System Services Menu.
4. Turn off any ScanMaster applications, including Electronic Journal.

Upgrading ScanMaster on the Workstation

Ensure that you are logged on to the workstation as the Administrator.

1. Insert the CD labeled **ScanMaster Version 1.02.02** into the workstation's CD-ROM drive.
2. From the Task Bar, click **Start→Run**.

The Run dialog box displays.

3. Click **Browse**.
4. Look in the **CD-ROM** drive.
5. Double-click the **SMinstall** folder to display the contents.
6. Double-click **SETUP.EXE** and click **OK** to launch the ScanMaster installation procedure.

The ScanMaster Welcome window displays.

7. Click **Next** to begin the installation.

The Choose Installation Type window displays.

8. Select **BackOffice - Upgrade** then click **Next**.

The Confirm Selections window displays.

9. Click **Next** to continue.

ScanMaster is loaded as the progress bar appears. When finished copying a box displays warning that you need to reboot the system.

10. Click **OK**.
11. Click **Finish**.

You have successfully upgraded ScanMaster on the Workstation.

12. Reboot the Workstation.

Note: If you have performed the upgrade while the store is live, proceed with upgrading the remaining POS Workstations.

Setting the RAMDrive Allocation

On a freshly installed register, the default number of items that can be rung in a single sale is 290. When the cashier reaches this point, the register will display "MUST TOTAL SALE!". This limitation is due to the default setting of the RAMDRIVE line in the register's CONFIG.SYS file:

```
DEVICEHIGH=C:\DOS\RAMDRIVE.SYS 935 /E
```

The 935 in the line indicates a 935K RAMDrive allocation. This area of the registers upper memory will be mapped as drive D:. The register will share this area with other files to store line item entries during a transaction. If this area ever becomes full, the register will display "DISK FULL" because of the drive mapping (even though it is physically part of the RAM).

Creating a file in C:\GROCERY on the register called MAXLINES.DAT can ease the number of transaction line item entries allowed. This is an ASCII file that includes the number of items you wish to set as the maximum allowed by the register. You can create this file with the COPY CON command at a DOS prompt.

```
C:\>CD\GROCERY
C:\GROCERY\>copy con maxlines.dat <Enter>
500 <Enter>
<Ctrl-Z> <Enter>
```

The number of items allowed by the register will always be 10 less than the Maxlines setting. (Maxlines = 500 --> Line Items Allowed = 490). This is because the register is reserving lines for tendering information.

When the register boots, it creates files to pre-allocate space in the RAMDrive to be used for line item entries. This pre-allocation automatically increases corresponding to a value increase in the MAXLINES.DAT file. If this pre-allocation amount exceeds the amount of RAMDrive available, you will get a "DISK FULL" error as GROCERY.EXE loads.

The formula that defines the amount of RAMDrive needed per Maxlines is as follows:

$$\text{Ramdrive} = (1,450 * \text{Maxlines}) + 500,000 + \text{Ramset}$$

This will give you the amount of bytes required for your number of Maxlines.

For example, if Maxlines = 2000, the amount of RAMDrive space required is 3,400,000 bytes (or 3,400K).

The switch on the RAMDRIVE line in the CONFIG.SYS is in kilobytes so a result of 3,400,000 would be entered as 3400.

It is important that you follow the formula exactly and not "overshoot" the RAMDrive size needed. If the GROCERY.EXE detects a surplus of RAMDrive space, it will use different memory management techniques, which exhibit characteristics the formula does not account for. It is possible that, by trying to increase the "cushion" of RAMDrive space, you will actually reduce the amount of "usable" space for the register.

CHECK THE RAMDRIVE SIZE PERSONALLY! MS-DOS's RAMDRIVE.SYS does not report an error if it cannot allocate the RAMDrive size you asked for. If the RAM is not available, because of memory limitations or other resident programs or drivers, RAMDRIVE.SYS will simply take what it can get and allocate a RAMDrive smaller than the parameter you set in the CONFIG.SYS file. A good way to view the RAMDrive you were given is to use the CHKDSK command on the D: drive. To do this, you should break out to DOS during the AUTOEXEC.BAT execution (<Ctrl-C>) and before the GROCERY line. It is important that you do not break out before the RAMDRIVE.SYS has a chance to run in the CONFIG.SYS. If it has not run, the register will not have a D: drive. Once you are at a DOS prompt, change to the D: drive and type CHKDSK. A screen similar to the one below will appear.

```
D:\>chkdsk

Volume MS-RAMDRIVE created 06-13-2003 12:00a

    951,808 bytes total disk space
      1,536 bytes in 3 directories
    950,272 bytes available on disk

           512 bytes in each allocation unit
        1,859 total allocation units on disk
        1,856 available allocation units on disk

    655,360 total bytes memory
    448,160 bytes free
```

This is the result of the RAMDrive being set to 935. Notice the "bytes total disk space" is a little larger than 935,000. If this line is comparable to your desired RAMDrive setting, then you are safe to continue.

Below is a table showing sample settings for Maxlines and the required RAMDrive setting (calculated from the above formula). It also shows the RAMDrive "cushion".

Maxlines	Ramdrive Setting (without Ramset)	Ramdrive Setting (with Ramset)	Cushion
300	935	2,494	388,096
400	1,080	2,639	389,120
500	1,225	2,784	388,096
600	1,370	2,929	386,048
700	1,515	3,074	385,024
800	1,660	3,219	386,048
900	1,805	3,364	386,048

1,000	1,950	3,509	384,000
1,100	2,095	3,654	381,952
1,200	2,240	3,799	384,000
1,300	2,385	3,944	384,000
1,400	2,530	4,089	362,496
1,500	2,675	4,234	368,640
1,600	2,820	4,379	364,544
1,700	2,965	4,524	360,448
1,800	3,110	4,669	366,592
1,900	3,255	4,814	358,400
2,000	3,400	4,959	362,496