

## Technical Bulletin

### ScanMaster: Upgrading from 1.02.xx to 1.02.02

SM-TECH-05:20

April 12, 2005

The procedures for this document outline the upgrade to ScanMaster version 1.02.02 from previous versions of 1.02.

If upgrading from ScanMaster version 1.01.06, the conversion instructions are found in [Technical Bulletin SM-Tech-05:19](#).

To Your Success,

***Bart***

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*Bart Woodbridge  
ScanMaster Support*

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## Summary of Steps for Upgrade

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## 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.

## 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 Confirm Uninstall Message Box appears: “Do you want to completely remove the selected application and all of its components?”

6. Click **OK**.

The files are removed.

7. Click **Finish**.
8. 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**.

## Installing ScanMaster v1.02.02 on the Registers

**Warning: If you are performing this conversion while the store is live, it is important that you plan the upgrade accordingly. Perform the following 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 be operated in “offline mode” until the server is upgraded. Please note that EFT Transactions will be temporarily disabled. Allocate enough lanes based on customer volume. 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.**

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 **2** for 1.02.00.

*The “Will Grocery.exe be run from RAMdrive” question appears.*

**Note:** By running Grocery.exe from a virtual drive (within RAM) rather than the hard drive, you can increase the speed of the DOS register. By answering “Yes” to this question, the RAMdrive size is increased by 1.5 MB in order to accommodate the executable.

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 install is performed and finishes.*

**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 POS Workstations that were open during this process and move your cashiers to these upgraded lanes.

**Warning: ScanMaster 1.02.02 has additional register memory requirements above those required for version 1.02. 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. Run the “Backup The Server” Tape Backup Utility from the System Services Menu.
2. Turn off all ScanMaster applications, including Electronic Journal.
3. Take all POS Workstations Offline
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. Insert the CD labeled **ScanMaster Version 1.02.02** into the Server 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 **Server - Upgrade** then click **Next**.

*The Confirm Selections window displays.*

9. Click **Next** to continue.

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

10. Click **OK**.

*A reboot message may appear if system files were updated. If so, select the "reboot now" option.*

11. Click **Finish**.

*You have successfully upgraded ScanMaster on the Server.*

**Note:** If you do not have a Back Office Workstation, you may now bring the 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.

### Converting the Customer and Electronic Coupon files

**Note:** Before converting the customer and electronic coupon files, be sure that all registers are in offline mode and the EJ processor is not running.

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

**Note:** Before converting the electronic journal database, be sure that all registers are in offline mode and EJ processor is not running.

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.*

### Upgrading the Electronic Journal

In contrast to ScanMaster version 1.02.01 and earlier, in ScanMaster 1.02.02, the Electronic Journal does not need to be updated with its own install. The Electronic Journal software will update automatically with the ScanMaster base install. This software will be loaded on all computers receiving an upgrade; however, the Back Office Control File settings below should still be changed on only one computer. As in previous versions, Electronic journal reports can be run from any workstation on the system or from the server. On the all server and backoffice machines Verify that the following settings are set as desired. On the PC that will run the Electronic Journal Processor make sure 'Enable EJ Processor on this Machine' is set to yes on only the machine running the Electronic Journal Processor.

<b>Back Office Control File</b>	# 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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### 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.

**Note:** You may now bring the POS Workstations back “On-Line” that were previously upgraded to 1.02.02.

## 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 increase 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".

<b>Maxlines</b>	<b>Ramdrive Setting (without Ramset)</b>	<b>Ramdrive Setting (with Ramset)</b>	<b>Cushion</b>
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