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                    IBM® eFlash for Point-of-Sale
                 Windows® Flash BIOS Update Program
                          August 31, 2007
                         Installation README
```

This README contains the latest information about updating
the system BIOS using the eFlash for Point-of-Sale (POS) program.

CONTENTS
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1.0 System Requirements
2.0 Installing the BIOS Update Files
3.0 Applying the BIOS Update
4.0 Silent Installation of BIOS Update
5.0 Known Issues
6.0 Troubleshooting
7.0 Revision History
8.0 Trademarks and Notices

1.0 System Requirements
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-   Windows 2000 with Service Pack 4 or Windows XP with Service Pack 2,
    with the latest Windows Installer version (included in Windows
    service packs). The actual operating system supported may be
    further restricted by the target system.

-   Windows Vista, Windows Longhorn/Server 2008, and Windows Embedded
    for Point of Service (WEPOS) are not tested or supported at this
    time

-   The InstallShield program will check to verify the OS level
    requirements

-   Administrator privileges are required to install the BIOS update

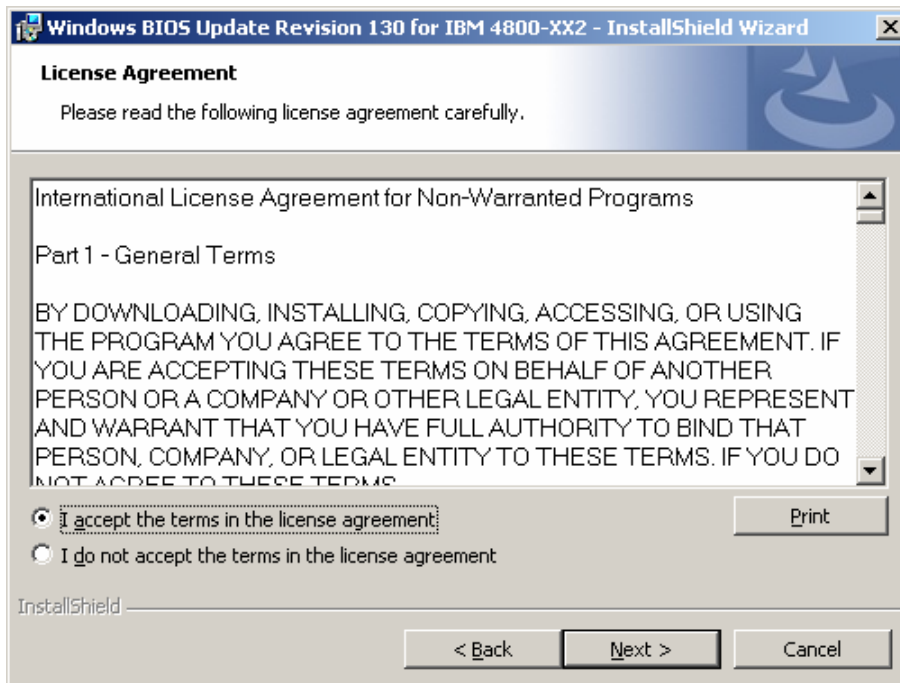For more information, refer to the Troubleshooting section of this
document.

2.0 Installing the BIOS Update Files
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Two installation types are supported: silent and interactive. To install the BIOS update files interactively, follow these steps. For silent installations, see section 4.0.

1. Download the Windows BIOS Update package for the target system unit from the IBM RSS Support site:
   http://www.ibm.com/solutions/retail/store/support

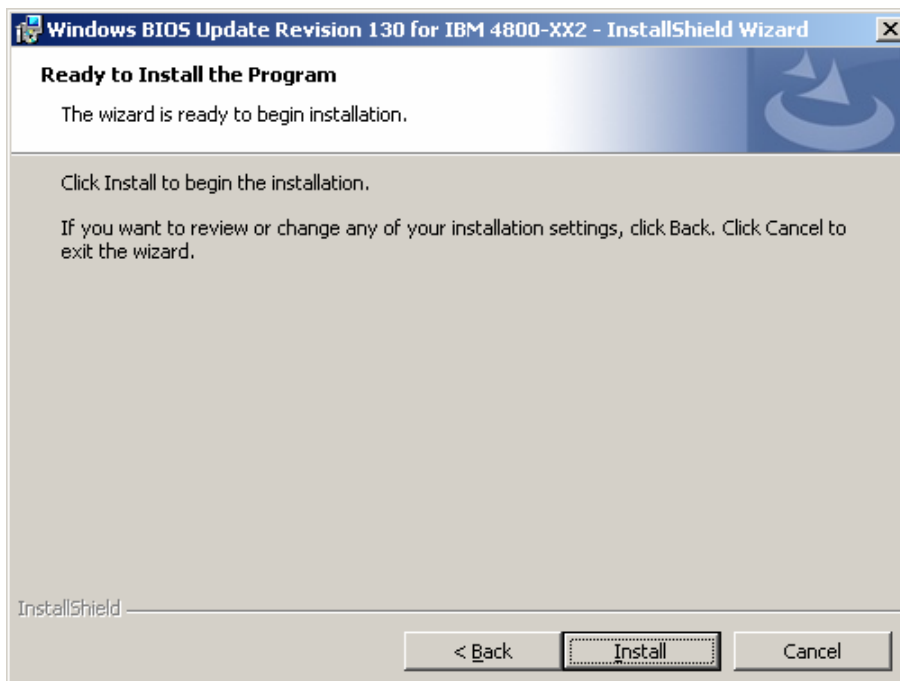2. Execute the downloaded file on the target system under Windows, and select "Next".

3. Read and accept the license agreement, then select "Next". If you do not accept the license agreement, the installation will exit.
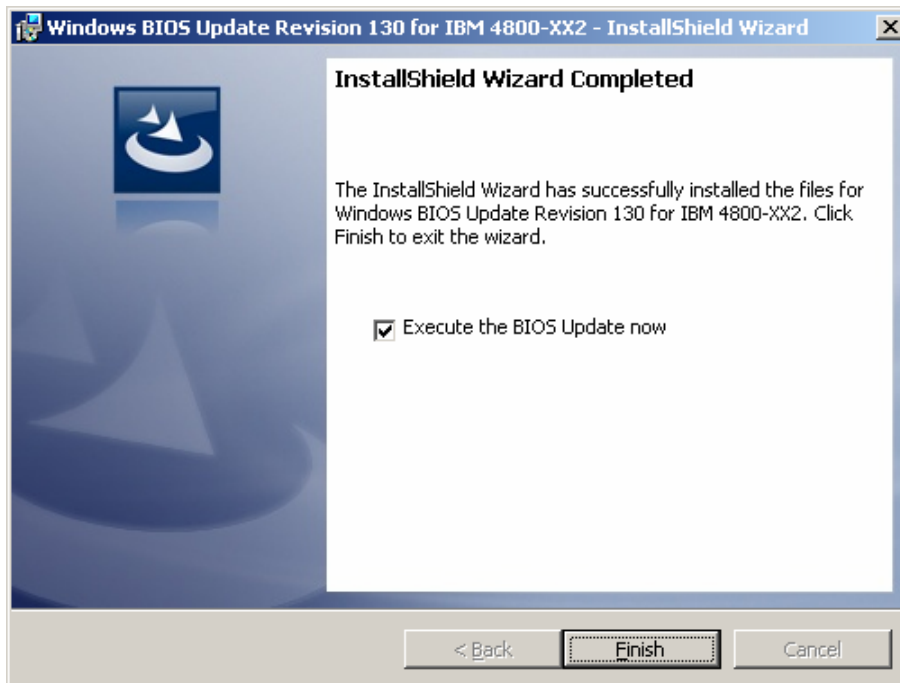

4. Select "Install". The Setup program will extract the BIOS update files to "C:\Program Files\IBM\BIOS" (location may vary on some systems). Any existing files in this folder will be overwritten.

Note: the BIOS update files are copied to the local disk, but the BIOS update is not applied at this time.

5. If "Execute the BIOS Update now" is selected (default), the BIOS update process will start when "Finish" is selected. Proceed to section 3.0.
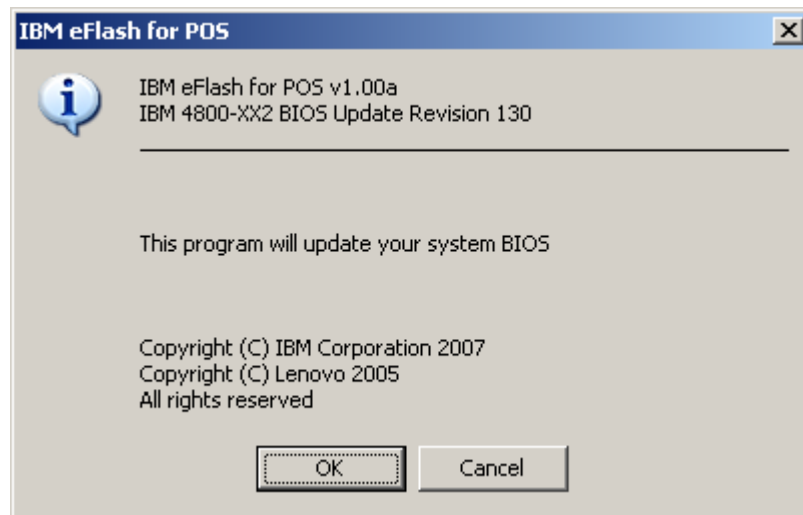
   If you do not wish to apply the BIOS update at this time, de-select the check box and select "Finish". Instructions for completing the BIOS update can be found in section 3.0.
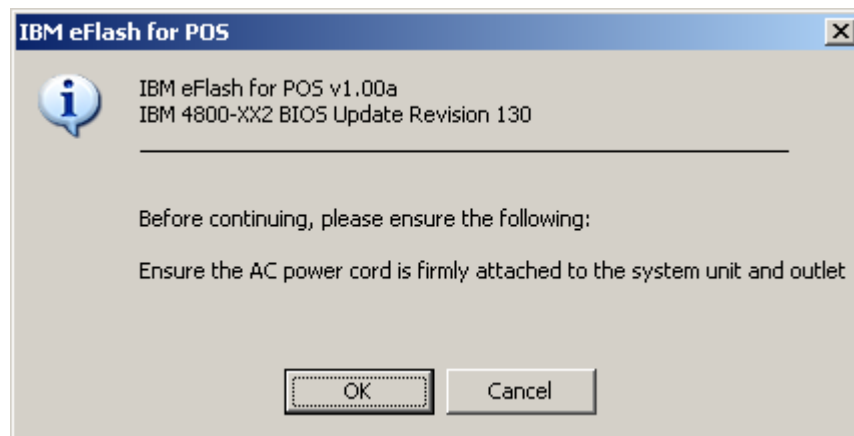
3.0 Applying the BIOS Update
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The BIOS update process is performed by eFlash for POS. To install the
BIOS update interactively, follow these steps. For silent
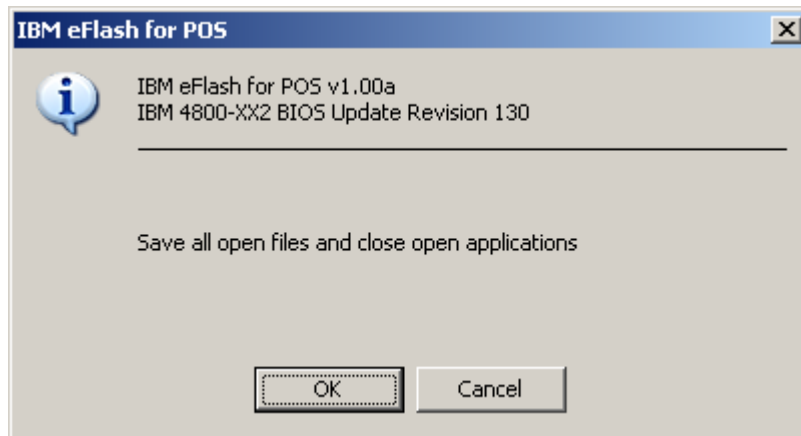installations, see section 4.0.

1. Start eFlash by opening the desktop icon for "Launch BIOS Update",
   or by executing "C:\Program Files\IBM\BIOS\biosupdt.exe", then
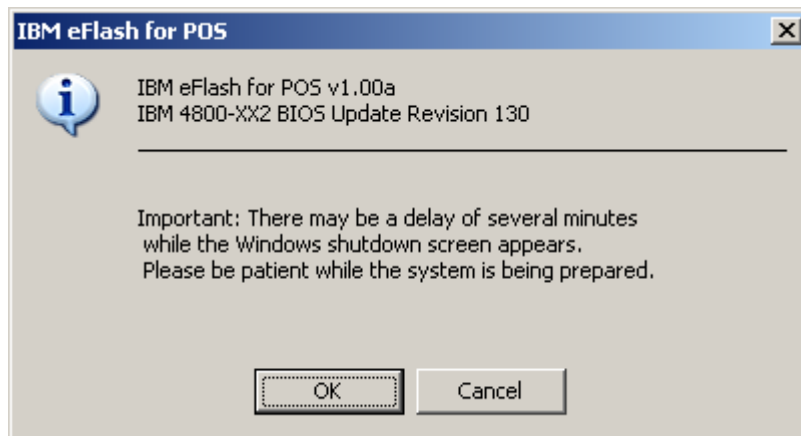   select "OK".

2. Select "OK" to continue

3. Close any open applications and save work before continuing. Select
   "OK" to proceed.

4. Select "OK". The BIOS update process will begin.
   eFlash will restart windows and perform the BIOS update process,
   which can take up to 5 minutes.

   IMPORTANT: Do not interrupt the BIOS update process once initiated.
   If the update does not complete, contact the Techline by following
   the link from the main support page listed earlier in this document.

6. The system will automatically restart when the BIOS update has
   completed. The BIOS update files used by eFlash will be
   automatically deleted when Windows restarts.

IF PROBLEMS ARE ENCOUNTERED DURING THE UPDATE PROCESS:
- Take note of the behavior and any error message. Contact the
Techline by following the link from the main support page listed
earlier in this document.

4.0   Silent Installation of BIOS Update
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Silent installations are useful for environments where the BIOS update
may be distributed to target systems from a server and applied
programmatically using scripts. To install the BIOS update silently
without user interaction, follow these steps.

1. Download the Windows BIOS Update package for the target system unit
   from the IBM RSS Support site:
   http://www.ibm.com/solutions/retail/store/support

2. Copy the downloaded file to a folder on the target system's local
   storage.

3. Execute the downloaded file (using a script, batch file, etc) on the
   target system using the following command line parameters.

       ex: DownloadFile.exe /s /v" /qn"

   Note the placement of the quotation marks.

   The Setup program will extract the BIOS update files to "C:\Program
   Files\IBM\BIOS" (location may vary on some systems). Any existing
   files in this folder will be overwritten.

   Note: the BIOS update files are copied to the local disk, but the
   BIOS update is not applied at this time.

4. Execute "silent.bat" (using a script, batch file, etc) in the
   "C:\Program Files\IBM\BIOS" folder. The eFlash program will restart
   Windows and perform the BIOS update process silently.

5. The system will automatically restart when the BIOS update has
   completed.

Example batch file to perform silent installation
Downloaded BIOS Update file location: C:\Download\File.exe

Batch File contents:
```
  c:
  c:\Download\DownloadFile.exe /s /v" /qn"
  cd "\Program Files\IBM\BIOS"
  silent.bat
```

5.0 Known Issues
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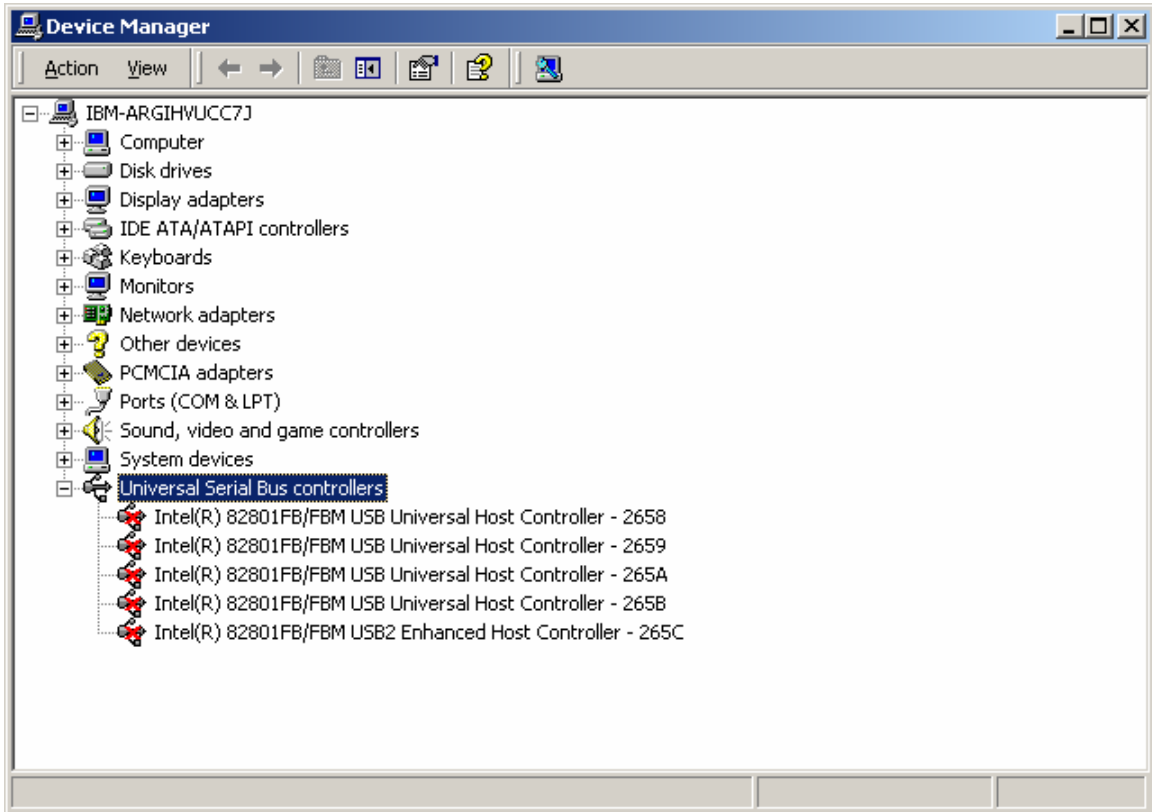1. SurePOS 500 4846-5X5 and Windows 2000 Professional

   Symptom:
   eFlash has begun the BIOS update process by shutting down Windows
   2000. The onboard display is blank, and the system is not
   responding. The system has been in this state for more than five
   minutes.

   Cause:
   This is a known issue affecting the 4846-5X5 with Windows 2000.

   Solution:
   A workaround is to disable the Universal Serial Bus (USB)
   controllers in Device Manager before executing the BIOS Update. A
   PS/2 keyboard and mouse, or non-USB-attached touch input, will be
   required to disable the USB controllers.

   After the update has completed, Windows restarts automatically.
   Enable the USB controllers in Device Manager.

6.0 Troubleshooting

1. **Error Message From eFlash That Multiple BIOS Images Are Found**
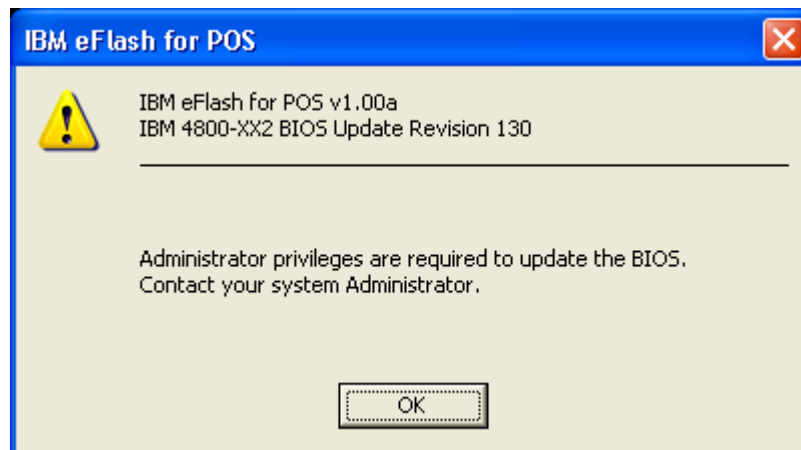

   Cause
   Several BIOS updates were installed in Windows, but a BIOS update
   was never initiated.

   Solution
   Delete all files in "C:\Program Files\IBM\BIOS" and reinstall the
   package. Only install one eFlash for POS BIOS update at a time.

2. **Error Message From eFlash That Administrator Privileges Are Required**

   Cause
   This behavior is by design. Both InstallShield and eFlash will
   verify if the program is being executed from an account with
   Administrator privileges. If Administrator privileges are not
   detected, an error Dialog will be shown to the user and the program
   will exit.

   Solution
   Execute eFlash with Administrative rights

3. **eFlash Program Files Are Missing After a Successful BIOS Update**

   Cause
   This behavior is by design. The eFlash program deletes the local
   BIOS files from "C:\Program Files\IBM\BIOS", along with the Desktop
   icon, after eFlash has been launched and has successfully shutdown
   Windows. To re-run the eFlash BIOS update after it has been
   installed once, the eFlash BIOS update package must be re-installed
   in Windows.

   Solution
   Re-install the eFlash BIOS update package in Windows.

4. **Cannot Install eFlash on Windows 98, Windows Me, Windows Vista, or
   Windows Longhorn/Server 2008**

   Cause
   This behavior is by design. eFlash for POS requires Windows 2000
   with Service Pack 4 or Windows XP with Service Pack 2, with the
   latest Windows Installer version (included in Windows service
   packs). The actual operating system supported may be further
   restricted by the target system. Windows Vista or Windows
   Longhorn/Server 2008 are not supported at this time

7.0 Revision History
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eFlash for POS Revision History

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=====================================================================
Revision:    1.00
Release Date: July 25, 2007
=====================================================================
- Initial Revision
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