MeasureMax+™
Measurement Software
For Sheffield® Coordinate Measurement Machines

Installation Instructions
for
MeasureMax+ Version 6.5

11 March 2003

At Giddings & Lewis, our business is quality and precision. To help us maintain a high level of quality, we invite you to send us your comments.

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1.   Introduction

First of all – don't panic! This document is only to be used as a reference and you are not expected to read every page. Installing MeasureMax+ really is simple; we're just trying to cover all of the bases for a multitude of products and situations.

You may have read the set of "Brief Installation Instructions" (see below) that was packaged with your MeasureMax+ CD-ROM. If you aren't comfortable using these abbreviated instructions, then use the step-by-step instructions in this document. This introduction tells you which chapters are pertinent to meet your needs.

BRIEF INSTALLATION INSTRUCTIONS

If you have a Dell system provided by Giddings & Lewis that does not have MeasureMax+ already installed, please read the "DELL Startup Instructions for MeasureMax+™ or MaxLite™". This will assist you in loading the Giddings & Lewis Recovery CD.

The following instructions require that Windows® 2000 and Service Pack 2 or Windows XP and Service Pack 1 are installed, and version 1 through 5 of MeasureMax or MaxLite are not installed. If you do not meet these requirements, need assistance, or have questions, see the "ReadFirst.txt" and "InstallationInstructions.pdf" files on the MeasureMax+ CD-ROM. You will need your MeasureMax License PAK for the installation. If available, attach the CADPath hardware security key to the computer's parallel port. Install from an account that is a member of the Power User group.

1. If MeasureMax+ is already installed, you must do the following steps:
   - Use Add/Remove Programs in Control Panel to uninstall all MeasureMax+ products.
   - Delete the MeasureMax subfolders: Bin, CADPath, FormFit, Readme, Source and Temp.
   - Run RegClean until there are no errors found or it has run a minimum of five times. To install RegClean, double-click the "\Misc\RegClean4.1a\Regcln41.exe" file on the MeasureMax+ CD.

2. If Microsoft® Visual Basic® or Visual Studio® is installed but it is not version 6, you must use Add/Remove Programs in Control Panel to uninstall it.

3. If you want to install only MaxLite, you may skip to step #4. Install Microsoft Visual Basic 6.0 and MSDN Library (select Custom installation with options for full-text search index, VB documentation and samples). Install Visual Studio Service Pack 5.

4. Insert the MeasureMax+ CD in the drive. On the Taskbar, click the Start and Run buttons. In the textbox type "D:\Setup", where "D" is the letter assigned to your CD-ROM drive and click OK. Follow the instructions on the screen.

5. If you have received any service packs or updates for this specific version, follow their instructions to install them. Also reinstall Windows 2000 Service Pack 2 or Windows XP Service Pack 1 and refer to step #1 above to run RegClean.

TECHNICAL SUPPORT: **TechSupport@sheffield-cmm.com** or 800.558.4808

"Section 2: Safety First – Backup Your System!" reminds you to protect your files. This is standard procedure for any software installation and should be performed on a regular basis.

If you receive a minor upgrade of MeasureMax+ or choose to reinstall the current version, then you should read *"Section 3: Minor Upgrade or Reinstall".*

"Section 4: Major Upgrade or New Installation" provides assistance for installing Microsoft® Visual Basic, in addition to, MeasureMax+.

Occasionally, it is desirable to restore the image on the hard drive to the factory settings. *"Section 5: Restore Image"* explains the pros and cons of this procedure.

"Section 6: Upgrade Measurement Processor" describes how to update the controller to your Sheffield CMM.

"Section 7: Tools" identifies several tools that are handy to have for installations and system maintenance. If you're installing support for international languages, then you must read the *"International Support"* section.

There is also a section on Frequently Asked Questions (FAQ's). *"Section 8: Trouble Shooting"* helps you resolve common problems. It also lists the phone numbers for our Service, Training and Technical Support Departments.

The minimum and recommended requirements for the Measurement Processor, operating system, and computer configuration are listed in *"Section 9: Minimum Requirements".*

We strive to make this a reference guide that you will find to be helpful and worthwhile. Should you have any recommendations or would like to see additional information, please contact us through your Sheffield Sales Representative or our Technical Support Department.

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2. Safety First – Backup Your System!

The frequency that you backup your data files depends on how often new files are created and old files are modified. If you're doing part program development, then you should plan to backup the part program folders on a daily or weekly basis. To protect the integrity of the System Registry, it is suggested that you create an Emergency Repair Disk (ERD) at least once a month.

Consider the hardship that you and your company would incur if the system crashes or files were accidentally deleted. After the latest backup is restored, how much work has to be done to make the data files current? If you have current listings of your part programs, then you can restore the part programs by editing the sources, but it may take a long time to do this. Most likely, inspection data that is not backed up cannot be recovered unless you can inspect the parts again. How does this impact manufacturing and engineering?

Below is a list of some of the files that should be backed up. You may want to print this list and modify it to meet your specific requirements.

1. Part programs
   Include all of the source files in addition to the executable and 'ini' files. Normally, program files are stored in the default Part Repository that is a folder named 'My Part Programs'. Keep in mind that the administrator may have setup multiple repositories or allowed programs to reside outside of a repository.

2. Inspection results
   CSV files, inspection reports, inspection logs and custom data files generated by part programs are some of the files that may contain inspection data that should be backed up. Data may also exist in a spreadsheet or an analysis package such as VisualSPC™.

3. MP Configuration
   Normally, the MP Configuration data is stored in a folder named 'My CMM'. This file is crucial to the operation of your CMM and should be protected by keeping a copy on floppy disk. You can generate a current file by running the MP Configuration Save/Restore utility in MeasureMax or MaxLite.

   It is also recommended that you record the communication settings for the RS-232 line that is interfaced to the MP. You can display this information by opening the Properties page for the Machine and selecting the Communications tab.

4. MeasureMax+ Personal Preferences
   MeasureMax+ can be configured for your personal preferences. This includes settings for user accounts, machines and probe tips. If you want to save these settings, refer to *RegEdit* in Section 7 for assistance.

5. STI files
   STI files include slideshows, menu configurations, bitmaps and histories. It is recommended that all STI files reside in the 'My STI Files' folder.

6. DesignMax files
   Normally, the DesignMax files reside in the 'My Designs' folder.

It is your responsibility to safeguard your system. Sheffield Automation LLC is not liable for unrecoverable data.

While we're on the topic of protecting critical files, be sure that you store the media and license PAK that is used to install MeasureMax+. Other items that may have come with your system (such as Microsoft Visual Basic, Image Recovery CD and perhaps the operating system) also need to be protected.

The following sections describe some of the methods that can be used to backup and restore files.

2.1.   MeasureMax Program Maintenance

MeasureMax provides a Program Maintenance window that can be used to copy or export individual part program folders. To recover exported files, you must use Program Maintenance to import them.

The level of Program Maintenance privileges that is assigned to you determines the type of files that you can access and/or copy.

2.2.   Windows Explorer

Windows Explorer is a commonly used tool to copy files.
- On the **Taskbar**, click the **Start** button, and click **Programs**.
- Select **Accessories**, and **Windows Explorer**.

If some file types are not visible, click **Tools** in Windows Explorer, click **Folder Options**, click the **View** tab, and then click **Show hidden files and folders**.

2.3.   Backup Utility

Windows® provides a Backup utility that helps you protect data from accidental loss due to hardware or storage media failure. For example, using Backup you can create a duplicate copy of the data on your hard disk by backing up the data to another storage device or a network. In the event that the original data on your hard disk is accidentally erased or overwritten, or becomes inaccessible because of a hard disk malfunction, you can easily restore the data from the backed up copy.

Using Backup, you can:
- Back up selected files and folders on your hard disk.
- Restore the backed up files and folders to your hard disk or any other disk you can access.
- Make a copy of your computer's System State, which includes such things as the registry, the boot files, and the system files.
- Schedule regular backups to keep your backed up data up to date.

To run the Backup utility or learn more about it, you can access it on a Windows 2000 system from the **Programs** menu.

- On the **Taskbar**, click the **Start** button, and click **Programs**.
- Select **Accessories**, **System Tools**, and **Backup**.

3.   Minor Upgrade or Reinstall

This section assists you in upgrading MeasureMax+ to the next minor release or reinstalling the same version of MeasureMax+ that is currently on your system.

You can distinguish between a major and minor upgrade by examining the version number. The MeasureMax+ version number identifies the major and minor version in addition to the service pack. For example, the version 6.20 represents major version 6, minor version 2, and the third digit is used for the service pack. In this example, there is no service pack. Subsequent minor upgrades for version 6 will be 6.3x and 6.5x, where 'x' denotes the service pack.

You must have these items before you begin the installation:
- MeasureMax distribution kit (CD-ROM) and any related service packs or updates.
- MeasureMax License PAK.
- CADPath hardware security key. This is an optional product that you may not have purchased. If available, attach the key to the parallel port of the computer.
- Install from an account that is a member of the Power User group.

Follow these instructions to reinstall the same version or install a minor upgrade:

1) Backup your system. Refer to *Section 2: Safety First – Backup Your System!* for assistance.

2) Terminate all MeasureMax+ applications.

3) Uninstall all MeasureMax+ products.
   - On the **Taskbar**, click the **Start** button.
   - Select **Settings**, **Control Panel** and **Add/Remove Programs**.
   - Use the **Remove** button in the **Add/Remove Programs** window to ensure that none of the following MeasureMax+ products are installed.
     - CADPath
     - DesignMax
     - IQ-FormFit
     - MaxLite
     - MeasureMax
     - Real Time Statistics Monitor
     - Single Touch Interface
     - Single Touch Interface Toolkit
     - Soft Probe Scan
     - Touch Probe Scan
   - Select **Close** to exit the **Add/Remove Programs** window.
   - If the **Control Panel** window is open, close it.

4) Delete the MeasureMax subfolders.
   - On the **Taskbar**, click the **Start** button then select **Programs**, **Accessories**, and **Windows Explorer**.
   - Display the MeasureMax installation folder. Normally, this resides in 'C:\Program Files\MeasureMax'.

- If you are certain you have no files that you need in the MeasureMax folder, then you can delete the entire folder. Alternatively, you may delete only these subfolders: Bin, CADPath, FormFit, Readme, Source, and Temp.
- To uninstall MeasureMax 1.xx, you must also delete the MeasureMax entry in the Programs Menu (delete folder 'C:\Windows\Start Menu\Programs\Startup\MeasureMax') and the icon on the Desktop.

5) If you would like to install the default settings for MeasureMax+, you will have to delete Sheffield Measurement from the System Registry. Refer to *RegEdit* in Section 7 for assistance.

6) Run RegClean. Refer to *RegClean* in Section 7 for assistance.

7) If your system is using a non-English version of the operating system or Visual Basic, please refer to *International Support* in Section 7 for assistance.

8) Enter MeasureMax+ License PAK.
- Place the MeasureMax+ CD-ROM in the drive.
- On the **Taskbar**, click the **Start** and **Run** buttons.
- In the textbox type "D:\Setup". If your CD drive is not "D", then enter the correct drive.
- Click **OK**.
- If you agree with the terms of the Microsoft Product Integration Agreement, click **Yes**.
- Type in the license information exactly as it appears on the MeasureMax+ License PAK. Pay close attention to punctuation characters, spaces, and capital letters. Every character must be exact.

9) When the **Master Setup** window appears, click a product that you want to install and follow the prompts. Repeat this for each product that is to be installed. Use the scroll bar at the right side of the window to see the complete list. Your license may not permit you to install every product. Contact your sales representative if you wish to purchase additional products.

- To install MeasureMax™, click the large **MeasureMax** button.
  - You are recommended to use the default installation folder; however, you may change this if necessary.
  - A Select Languages dialog is displayed to allow you to install other languages in addition to the English language.
  - If the installation cannot determine the CMM properties from the System Registry, it will display the Communications dialog. If you cannot recall the settings, then use the default settings. You can use MeasureMax to change these settings later.

- To install the add-on products for MeasureMax, click the appropriate button in the Master Setup window and follow the prompts. The add-on products are:
  - Real Time Statistics™
  - Soft Probe Scan™
  - Touch Probe Scan™
  - Single Touch Interface™
    – If the installation cannot determine the machine and user names for STI from the System Registry, dialogs will be displayed. The Select CMM dialog is used to specify which machine will be used to create a Single Touch

Interface machine; typically, the CMM1 machine is used. The Select User Account dialog is used to specify which MeasureMax user will be used with Single Touch Interface; typically, Administrator is selected.

    – If you aren't sure what to select, then use the default settings. You can use STI Manager to change these settings later.

- Single Touch Interface Toolkit™
- CADPath™
  - If you have a CADPath hardware security key, make sure that it is attached to the parallel port of your computer. Without this key, the software will only run in a demonstration mode.
  - If a CADPath window is opened, close it.
  - If the Setup Complete dialog asks if it is OK to restart your computer now, select **No**. You must remember to restart your computer after you exit Master Setup.
- IQ-FormFit™
  - If an IQ-FormFit window is opened, close it.
  - You must remember to restart your computer after you exit Master Setup.
- DesignMax™

- To install MaxLite™, click the **MaxLite** button.
  - You are recommended to use the default installation folder; however, you may change this if necessary.
  - A Select Languages dialog is displayed to allow you to install other languages in addition to the English language.
  - If the installation cannot determine the CMM properties from the System Registry, it will display the Communications dialog. If you cannot recall the settings, then use the default settings. You can use MaxLite to change these settings later.

- To exit Master Setup, click the **Exit Setup** button. Remove the CD-ROM.

10) If you have received any service packs or updates for this specific version, follow the instructions on the label to install them.

11) If you installed any products that require you to restart the computer, you should do that now.
- On the **Taskbar**, click the **Start** button, and click **Shutdown**.

12) Reinstall the Windows 2000 or Windows XP service pack. Refer to *Windows 2000 Service Pack* or *Windows XP Service Pack* in Section 7 for assistance.

13) Run RegClean. Refer to *RegClean* in Section 7 for assistance.

4.   Major Upgrade or New Installation

This section assists you in performing a major upgrade or a new installation of MeasureMax+. A major upgrade is more involved than a minor upgrade because the System Registry must be edited and if Microsoft Visual Basic is used, it must be upgraded also.

You can distinguish between a major and minor upgrade by examining the version number. The MeasureMax+ version number identifies the major and minor version in addition to the service pack. For example, the version 6.20 represents major version 6, minor version 2, and the third digit is used for the service pack. In this example, there is no service pack. Subsequent major upgrades will be 7.x and 8.x, where 'x' denotes the minor version and service pack. Beginning with version 5, we changed the version number of MeasureMax+ to coincide with the version of Visual Basic that was installed. This explains why the MeasureMax version jumped from 2.01 to 5.00.

If Windows 2000 Professional is installed on a computer that does not have a network card and if you experience any problems with the computer locking up or shutting off, then it may be necessary to install a dial-up adapter (even if you don't have a modem) on COM2 with the NetBEUI protocol.

Service pack 2 for Windows 2000 or Service pack 1 for Windows XP is required. Refer to *Windows 2000 Service Pack* or *Windows XP Service Pack* in Section 7 for assistance.

You must have these items before you begin the installation:
- MeasureMax distribution kit (CD-ROM) and any related service packs or updates.
- MeasureMax License PAK.
- CADPath hardware security key. This is an optional product that you may not have purchased. If available, attach the key to the parallel port of the computer.
- Microsoft Visual Basic distribution kit (CD-ROM) and Visual Studio Service Pack 5. You must install a language version matching your system's language setting.
  Note: if you are installing only the MaxLite product, then you do not need Visual Basic.
- Install from an account that is a member of the Power User group.

Follow these instructions to install a major upgrade. These steps are used to uninstall your current products. If you are performing a new installation, then skip to the next section.

1) Backup your system. Refer to *Section 2: Safety First – Backup Your System!* for assistance.

2) Terminate all MeasureMax+ applications.

3) Uninstall all MeasureMax+ products and Visual Basic if applicable.
   - On the **Taskbar**, click the **Start** button.
   - Select **Settings**, **Control Panel** and **Add/Remove Programs**.
   - Use the **Remove** button in the **Add/Remove Programs** window to ensure that none of the following MeasureMax+ products are installed.
     – CADPath
     – DesignMax
     – IQ-FormFit

- MaxLite
- MeasureMax
- Real Time Statistics Monitor
- Single Touch Interface
- Single Touch Interface Toolkit
- Soft Probe Scan
- Touch Probe Scan
- Use the **Remove** button in the **Add/Remove Programs** window to ensure that none of the following Visual Basic products are installed.
  - Microsoft Visual Basic
  - Microsoft Visual Studio
  - MSDN Library
- Select **Close** to exit the **Add/Remove Programs** window.
- If the **Control Panel** window is open, close it.

4) Delete the MeasureMax subfolders.
- On the **Taskbar**, click the **Start** button then select **Programs**, **Accessories**, and **Windows Explorer**.
- Display the MeasureMax installation folder. Normally, this resides in 'C:\Program Files\MeasureMax'.
- If you are certain you have no files that you need in the MeasureMax folder, then you can delete the entire folder. Alternatively, you may delete only these subfolders: Bin, CADPath, FormFit, Readme, Source, and Temp.
- To uninstall MeasureMax 1.xx, you must also delete the MeasureMax entry in the Programs Menu (delete folder 'C:\Windows\Start Menu\Programs\Startup\MeasureMax') and the icon on the Desktop.

5) Delete Sheffield Measurement from the System Registry. Refer to *RegEdit* in Section 7 for assistance.

➢➢➢ **Instructions for new installations are started here.**

6) Run RegClean. Refer to *RegClean* in Section 7 for assistance.

7) Install Visual Basic (VB). If you are installing only MaxLite, skip this step. MaxLite does not utilize Visual Basic.

➢ Most users have the Learning Edition of Visual Basic; however, the Professional and Enterprise Editions may also be used. Follow these steps to install Microsoft Visual Basic 6.0. Be aware that the installation prompts may vary somewhat from these instructions. This depends on whether VB was previously installed, which system files have already been loaded, and which edition is being installed. Choosing the default response is typically the correct response. When you are prompted to restart Windows, allow the system to do so and do not remove the CD-ROM unless so instructed.
  - Place the "Microsoft Visual Basic 6.0 Development System" CD-ROM in the drive. If you have another CD-ROM labeled "Learn Microsoft Visual Basic 6.0 Now", it is a tutorial and may be installed later. Installation of the tutorial is your option.
  - If the CD-ROM does not automatically start the installation, follow these steps:
    - On the **Taskbar**, click the **Start** and **Run** buttons.

- In the textbox type "D:\Setup". If your CD drive is not "D", then enter the correct drive.
- Click **OK**.
- Follow the prompts.
- When you are prompted to enter the product ID number, enter the CD Key that is located on the back of the CD-ROM case.
- Windows 2000 includes Internet Explorer 5. If you want to install version 5.0 after you complete the MeasureMax+ installation, refer to *Internet Explorer 5* in Section 7 for assistance.
  - When you are prompted for the installation option, select **Standard**.
  - When you are asked to install the Windows Desktop Update, click **No**. It is important that you do not install this option.
  - Follow the prompts. When prompted to restart your computer, respond affirmatively. Do not remove the CD-ROM.
- When you are prompted for the Visual Basic installation option, click the **Typical** button.
- If you are prompted to install DCOM98, follow the prompts until the installation is completed.
- If you are asked if newer files should be replaced with older files, click **No**. This is normally a safe action, unless applications other than those defined in this document have been installed.
- Follow the prompts. When prompted to restart your computer, respond affirmatively. Do not remove the CD-ROM.
- Installation of the Microsoft Developer Network Library (MSDN) is your option. You may install this now or at a later time. If you install it, these instructions provide the recommended options:
  - Insert Disc 1 of the MSDN Library and follow the prompts.
  - When you are prompted to choose the type of installation, click the **Custom** button.
  - Select only the following options:
    - Full Text Search Index
    - VB Documentation
    - VB Product Samples
  - Follow the prompts.
- When the installation is completed, remove the CD-ROM.

➢ You must install the Visual Studio Service Pack 5. This is required for all editions of VB.
- Use Windows Explorer to display the 'Vs6Sp5' folder on the MeasureMax+ CD-ROM. This folder contains the English version of the service pack. If you installed a non-English version of Visual Basic, do not install this file. You must obtain the correct service pack for your language. Refer to *International Support* in Section 7 for assistance.
- The service pack is a compressed file that must be extracted to a temporary folder. Create a temporary folder named 'C:\Temp\Vs6sp5', double click the vs6sp5vb.exe file and use the **Browse** and **Extract** buttons to extract the files to the temporary folder. It will take several minutes to copy the files.
- Use Windows Explorer to display the temporary folder and double click the 'SETUPSP5.exe' file. Follow the prompts to install the service pack.

- If the installation fails because the Microsoft Data Access Components (MDAC) is not version 2.6, you will be prompted to install Mdac_type. Follow these steps:
  - Use Windows Explorer to display the temporary folder and double click the 'Mdac_type.exe' file.
  - Follow the prompts. When prompted to restart your computer, respond affirmatively. Do not remove the CD-ROM.
  - Repeat the previous step to install SetupSp5.
- After the service pack is installed, you may delete the temporary folder 'C:\Temp\Vs6sp5'. However, this folder should not be deleted if you want to install Internet Explorer 5 after you complete the MeasureMax+ installation; in which case, you can refer to *Internet Explorer 5* in Section 7 for assistance.

8) If your system is using a non-English version of the operating system or Visual Basic, please refer to *International Support* in Section 7 for further assistance.

9) Reinstall the Windows 2000 service pack. Refer to *Windows 2000 Service Pack* in Section 7 for assistance.

10) Enter MeasureMax+ License PAK.
- Place the MeasureMax+ CD-ROM in the drive.
- On the **Taskbar**, click the **Start** and **Run** buttons.
- In the textbox type "D:\Setup". If your CD drive is not "D", then enter the correct drive.
- Click **OK**.
- If you agree with the terms of the Microsoft Product Integration Agreement, click **Yes**.
- Type in the license information exactly as it appears on the MeasureMax+ License PAK. Pay close attention to punctuation characters, spaces, and capital letters. Every character must be exact.

11) When the **Master Setup** window appears, click a product that you want to install and follow the prompts. Repeat this for each product that is to be installed. Use the scroll bar at the right side of the window to see the complete list. Your license may not permit you to install every product. Contact your sales representative if you wish to purchase additional products.

- To install MeasureMax™, click the large **MeasureMax** button.
  - You are recommended to use the default installation folder; however, you may change this if necessary.
  - A Select Languages dialog is displayed to allow you to install other languages in addition to the English language.
  - If the installation cannot determine the CMM properties from the System Registry, it will display the Communications dialog. If you cannot recall the settings, then use the default settings. You can use MeasureMax to change these settings later.

- To install the add-on products for MeasureMax, click the appropriate button in the Master Setup window and follow the prompts. The add-on products are:
  - Real Time Statistics™
  - Soft Probe Scan™
  - Touch Probe Scan™
  - Single Touch Interface™

- If the installation cannot determine the machine and user names for STI from the System Registry, dialogs will be displayed. The Select CMM dialog is used to specify which machine will be used to create a Single Touch Interface machine; typically, the CMM1 machine is used. The Select User Account dialog is used to specify which MeasureMax user will be used with Single Touch Interface; typically, Administrator is selected.
  - If you aren't sure what to select, then use the default settings. You can use STI Manager to change these settings later.
- Single Touch Interface Toolkit™
- CADPath™
  - If you have a CADPath hardware security key, make sure that it is attached to the parallel port of your computer. Without this key, the software will only run in a demonstration mode.
  - If a CADPath window is opened, close it.
  - If the Setup Complete dialog asks if it is OK to restart your computer now, select **No**. You must remember to restart your computer after you exit Master Setup.
- IQ-FormFit™
  - If an IQ-FormFit window is opened, close it.
  - You must remember to restart your computer after you exit Master Setup.
- DesignMax™

- To install MaxLite™, click the **MaxLite** button.
  - You are recommended to use the default installation folder; however, you may change this if necessary.
  - A Select Languages dialog is displayed to allow you to install other languages in addition to the English language.
  - If the installation cannot determine the CMM properties from the System Registry, it will display the Communications dialog. If you cannot recall the settings, then use the default settings. You can use MaxLite to change these settings later.

- To exit Master Setup, click the **Exit Setup** button. Remove the CD-ROM.

12) If you have received any service packs or updates for this specific version, follow the instructions on the label to install them.

13) If you installed any products that require you to restart the computer, you should do that now.
- On the **Taskbar**, click the **Start** button, and click **Shutdown**. Select **Restart** and **OK**.

14) Reinstall the Windows 2000 or Windows XP service pack. Refer to *Windows 2000 Service Pack* or *Windows XP Service Pack* in Section 7 for assistance.

15) Run RegClean. Refer to *RegClean* in Section 7 for assistance.

16) It is suggested that you create a backup of your system. Refer to *Section 2: Safety First – Backup Your System!* for assistance.

5. Restore Image

If you purchased a new computer system with MeasureMax+ version 6.5 from Sheffield Automation, you will have received recovery disks that enable you to restore the disk to the factory settings with the Windows XP operating system. This process is similar to formatting the hard drive; that is, it destroys all files on the drive and there is no way to recover this data.

To restore the image on a Dell Computer, refer to the Dell Startup Instructions for the Sheffield Automation recovery. The instructions and disks are packaged with the system.

Windows XP requires activation. You **must** activate within 60 days. A notification to activate appears periodically in the notification area on the taskbar, for example:
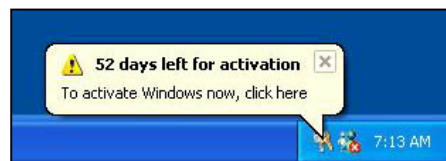
Click on the indicated icon in the notification area and the following dialog will be displayed.
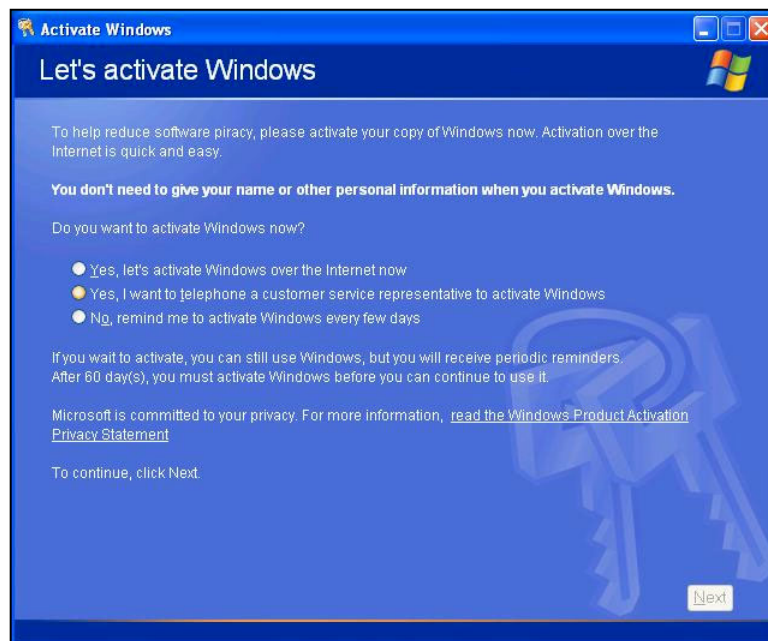
Follow the instructions to complete the activation process.

6.   Upgrade Measurement Processor

Before the Measurement Processor (MP) is upgraded, it is strongly recommended that the user carefully review the modifications and enhancements that were implemented from the old version to the new version.

As a safety measure to protect your configuration data, you must run MeasureMax or MaxLite and save a copy of the MP configuration data using the 'MP Configuration Save/Restore' utility. This is required before the upgrade is started - and again - after the upgrade is completed.

The SMP-300 and SMP-400 measurement processors contain flash memory that can be upgraded by running a special program on your computer. Upgrading the MP30/35/30-II measurement processors requires opening the MP unit to replace the firmware chips.

To perform the upgrade, follow the instructions that are provided with the upgrade kit. If you prefer to have a service engineer do the upgrade, or if a more extensive upgrade is needed, please contact your Sheffield Sales Representative or our Service Department (phone numbers are in Section 8).

7. Tools

This section contains a variety of useful tools and procedures to maintain a healthy system.

7.1. Display Version Numbers

To display operating system, version, service pack and amount of physical memory:
- On the **Taskbar**, click the **Start** button.
- Select **Settings** and **Control Panel**.
- Click the **Help** menu and **About Windows**.

To display the version and service pack for Visual Basic:
- On the **Taskbar**, click the **Start** button then select **Programs** and **Microsoft Visual Basic**.
- Click the **Help** menu and **About Microsoft Visual Basic**.

To display the version of MeasureMax:
- Run MeasureMax.
- In the Control Center, click the **Help** menu and **About**.

To display the version of firmware in the Measurement Processor with MeasureMax:
- Run MeasureMax.
- The MP must be online. If the name of the CMM is not displayed in the status panel at the bottom of the Control Center window, click **Machine** and **Start** to select the CMM.
- Select **Machine**, **Properties** and the **Configuration** tab.

To display the version of MaxLite:
- Run MaxLite.
- Click the **Help** and **About** buttons.

To display the version of firmware in the Measurement Processor with MaxLite:
- Run MaxLite.
- The MP must be online. If the name of the CMM is not displayed in the Set Up window, click the **Machine** and **On-Line** buttons.
- Click the **User Modes** and **Setup** buttons.

7.2. CMM Properties

To display the CMM Properties with MeasureMax:
- Run MeasureMax.
- The MP must be online. If the name of the CMM is not displayed in the status panel at the bottom of the Control Center window, click **Machine** and **Start** to select the CMM.
- Select **Machine** and **Properties**.

- Click the **Communications** tab for the RS-232 settings.

To display the CMM Properties with MaxLite:
- Run MaxLite.
- The MP must be online. If the name of the CMM is not displayed in the Set Up window, click the **Machine** and **On-Line** buttons.
- Click the **User Modes** and **Setup** buttons.
- Click the **Machine**, **Properties** and **On-Line** buttons.
- Click the **Communications** tab for the RS-232 settings.

The communication settings are listed below. During installation, the SMP-300 is used as the default machine. Typically, COM1 is used as the communication port.

	SMP-300	SMP-400	MP30/35/30-II
Baud Rate	19200	57600	9600
Data Bits	8	8	8
Stop Bits	1	1	1
Parity	Odd	Odd	Odd

7.3.   Create Shortcut to Run MeasureMax+

To create a shortcut to run a program or application:
- On the **Taskbar**, click the **Start** button.
- Click **Settings** and **Taskbar & Start Menu**.
- Select the **Start Menu Programs** tab in the Taskbar Properties window.
- Click **Add** and **Browse**.
- Open the file that will run the application. The MeasureMax+ applications and files are listed below. All MeasureMax+ files are located in the MeasureMax\Bin folder (typically, C:\Program Files\MeasureMax\Bin).
    - MeasureMax → ControlCenter.exe
    - STI → SFIShell.exe
    - STI Editor → SFIEditor.exe
    - STI Manager → SFI Manager.exe
    - MaxLite → MMLSetup.exe
- Click **Next**.
- In *Select Program Folder*, click **Desktop** and **Next**.
- In *Select a Title for the Program*, enter the product name and click **Finish**.

7.4.   Automatically Run MeasureMax+ at Startup

To automatically run a program or application when the user logs on:
- On the **Taskbar**, click the **Start** button.
- Click **Settings** and **Taskbar & Start Menu**.
- Select the **Start Menu Programs** tab in the Taskbar Properties window.
- Click **Add** and **Browse**.

- Open the file that will run the application. The MeasureMax+ applications and files are listed below. All MeasureMax+ files are located in the MeasureMax\Bin folder (typically, C:\Program Files\MeasureMax\Bin).

MeasureMax	→	ControlCenter.exe
STI	→	SFIShell.exe
STI Editor	→	SFIEditor.exe
STI Manager	→	SFI Manager.exe
MaxLite	→	MMLSetup.exe

- Click **Next**.
- In *Select Program Folder*, click **Start Menu | Programs | Startup** and **Next**.
- In *Select a Title for the Program*, enter the product name and click **Finish**.

To remove a program or application from the Startup folder:
- On the **Taskbar**, click the **Start** button.
- Click **Settings** and **Taskbar & Start Menu**.
- Select the **Start Menu Programs** tab in the Taskbar Properties window.
- Click **Remove** and **Browse**.
- Select the program and click **Remove**.

7.5. International Support

MeasureMax+ is a multi-language product that has been running successfully in many different countries, mainly due to its ability to provide a localized user interface. There are three distinct categories that need to be considered for international support. They are the operating system, Visual Basic, and MeasureMax+.

The operating system determines the regional settings and the standard folder names. MeasureMax+ supports the regional settings; therefore, it is not necessary to change the characters (for example, the comma and period characters that are used for English currency).

To keep the installation instructions consistent and simple, the default folders used by MeasureMax+ are assigned English names; however, you may rename them. When you install MeasureMax+, instead of using the default folder "Program Files" rename it to the folder where your other programs are installed and attach the subfolder name "\MeasureMax".

You can use Windows Explorer to create new folders to be used for "My Part Programs" and "My CMM" and then setup MeasureMax to use them instead.
- In the MeasureMax Control Center, click **Users** and **Configure**.
- Controls at the bottom of the window enable you to change the folder locations.

Likewise, you can use Windows Explorer to create new folders to be used for "My STI Files" and so forth, and then setup STI to them instead.
- In the STI Manager, click **Settings** and **Options**.
- The Options window enables you to change all default locations used by STI.

If you install a non-English version of Visual Basic, then you must install the appropriate service pack for that language. Only the English version is provided on the

MeasureMax+ CD-ROM. You can download the appropriate Visual Studio Service Pack 5 from the Microsoft web site at URL: http://msdn.microsoft.com/vstudio/downloads/updates/sp/vs6/sp5/dnldoverview.asp. Service Pack 5 must be installed before you install MeasureMax.

If you install a non-English version of Visual Basic, then you must run the SetVbLanguage utility after you install MeasureMax+. MeasureMax QuickTeach and Visual Basic are tightly integrated so it is important that QuickTeach knows the installed language of VB. This enables QuickTeach to modify the selections in the VB menu bar and menu pulldowns.

- Place the MeasureMax+ CD-ROM in the drive.
- On the **Taskbar**, click the **Start**, **Run** and **Browse** buttons.
- Select the CD drive (typically D) and the 'Misc\Languages' folder.
- Select the 'SetVbLanguage.exe' file and click **Open**.
- In the Run dialog, click **OK**.
- In the Language Maintenance window, select the correct language and click the **Set VB Language** button.

During the MeasureMax+ installation, you are prompted to select the international languages that will be used. If additional languages are needed at a later time, it is recommended that you reinstall MeasureMax+ to load them. However, there is an alternative method that can be used. You can manually copy the language files and run the AddLanguage utility:

- Place the MeasureMax+ CD-ROM in the drive.
- On the **Taskbar**, click the **Start**, **Run** and **Browse** buttons.
- Select the CD drive (typically D) and the "Misc\Languages" folder.
- Select the "AddLanguage.exe" file and click **Open**.
- In the Run dialog, click **OK**.
- In the Language Maintenance window, select the additional language and click the **Add Language** button.
- Use the Windows Explorer to copy all of the language files from product folders on the MeasureMax+ CD-ROM to the MeasureMax\Bin folder. Language files have a 'dll' extension and the first three characters of the filename represent the language: 'chs' is simplified Chinese, 'cht' is traditional Chinese, 'enu' is English, 'fra' is French, 'deu' is German, 'ita' is Italian, 'jpn' is Japanese, 'esp' is traditional Spanish, and 'sve' is Swedish.

7.6.   Acrobat Reader

Document files with the extension 'pdf' can be opened with Adobe® Acrobat Reader.

If you would like to use Acrobat Reader, it can be installed from the MeasureMax+ CD-ROM or downloaded for free from the Adobe web site. The web address is: www.adobe.com/acrobat.

Follow these steps to install Acrobat Reader:
- Use Windows Explorer to display the "Misc\Acrobat" folder on the MeasureMax+ CD-ROM.

- To install version 5.1, double-click the AcroReader51_ENU.exe file. Version 5.1 is the preferred version.
- Follow the prompts. This is a compressed file that will install the product to the specified folder.

To run Acrobat Reader, double-click the 'pdf' file or select Adobe Acrobat Reader from the Programs menu.

Follow these steps to uninstall Acrobat Reader:
- On the **Taskbar**, click the **Start** button.
- Select **Settings**, **Control Panel** and **Add/Remove Programs**.
- Use the **Remove** button in the **Add/Remove Programs** window to uninstall Acrobat Reader.
- Select **Close** to exit the **Add/Remove Programs** window.
- If the **Control Panel** window is open, close it.

7.7.   Internet Explorer 5

If Internet Explorer has been removed from your system or it is not at least version 5, use these instructions to install Internet Explorer 5 (IE5).

The IE5 installation files are included in Visual Studio Service Pack 5. If you have not already extracted the Service Pack 5 files to your system, follow these instructions.
- Use Windows Explorer to display the 'Vs6Sp5' folder on the MeasureMax+ CD-ROM. This folder contains the English version of the service pack. If you installed a non-English version of Visual Basic, do not install this file. You must obtain the correct service pack for your language. Refer to *International Support* in Section 7 for assistance.
- The service pack is a compressed file that must be extracted to a temporary folder. Create a temporary folder named 'C:\Temp\Vs6sp5', double-click the vs6sp5vb.exe file and use the Browse button to extract the files to the temporary folder. It will take several minutes to copy the files.
- Use Windows Explorer to display the subfolder for IE5 ('C:\Temp\Vs6sp5\IE5') and double-click the IE5SETUP.exe file. Follow the prompts.
- After IE5 is installed, you may delete the temporary folder 'C:\Temp\Vs6sp5'; however, this folder should not be deleted if you want to install the service pack for Visual Studio.

7.8.   Microsoft Explorer Window

There are several different methods to open Windows Explorer. Here are two of them:
- On the **Taskbar**, click the **Start** button then select **Programs**, **Accessories**, and **Windows Explorer**.
- On the **Taskbar**, click the **Start** button with the right mouse button and select **Explore**.

When you open Windows Explorer, you may want to change some settings so it will display more information. Here are some suggested settings:

- On the **Tools** menu, click **Folder Options**.
- Click the **View** tab.
- Change the advanced settings to match the settings in this illustration. It is important that '*show hidden files and folders*' is enabled and '*hide file extensions for known file types*' is not checked.
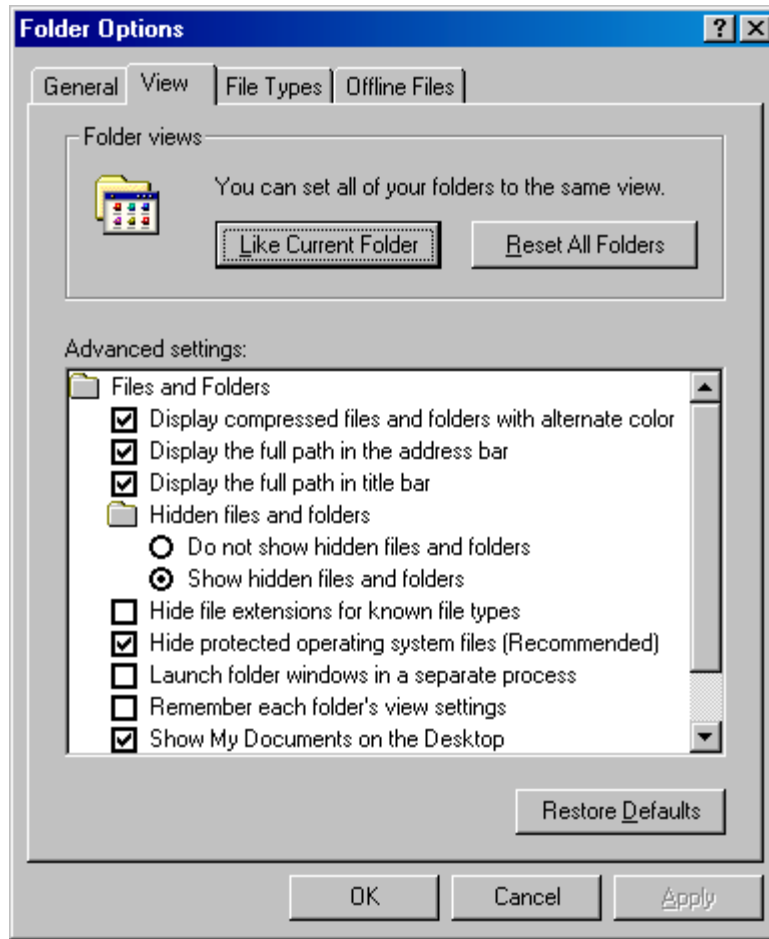
7.9.   Microsoft Word Viewer

Document files with the extension 'doc' can be opened with Microsoft WordPad, Microsoft Word, or Microsoft Word Viewer.

With the Microsoft® Word Viewer 97/2000, Microsoft Word users can share documents with those who do not have Word and users without Word can open and view Word documents. This product also allows users who wish to post rich-formatted Word documents on the Internet to expand their online audience to people who might not have Word. This viewer also allows users to view and print documents created in the Word native file format, even if they do not have Word. Users are allowed to zoom, outline, or view page layout, headers/footers, footnotes, and annotations.

If you would like to use Word Viewer, it can be downloaded for free from the Microsoft web site. The URL is:
> http://office.microsoft.com/downloads/2000/wd97vwr32.aspx

7.10. RegClean

It is important to run RegClean after products have been added or removed. RegClean analyzes Windows Registry keys stored in a common location in the Windows Registry. It finds keys that contain erroneous values, and after recording those entries in the Undo.Reg file, it removes them from the Windows Registry.

Follow these steps to install RegClean:
- Use Windows Explorer to display the "Misc\RegClean4.1a" folder on the MeasureMax+ CD-ROM.
- Double-click the Regcln41.exe file and follow the prompts. This is a compressed file that will install three files to the specified folder.
- Right-click the RegClean.exe file and select **Create Shortcut**.
- Drag the shortcut file to the Desktop. You may want to rename the shortcut to "RegClean".
- Click the Readme.txt file to learn more about this utility.

To run RegClean, click the shortcut or the executable file and follow the prompts. Continue to run RegClean until there are no more errors to fix.

7.11. RegEdit

Registry Editor is an advanced tool that enables you to change settings in your system registry, which contains information about how your computer runs. You should not edit your registry unless it is absolutely necessary. If there is an error in your registry, your computer may become nonfunctional. If this happens, you can restore the registry to its state when you last successfully started your computer. For instructions, see Help in RegEdit.

Follow these instructions to access the Sheffield Measurement folder in the System Registry. Displaying keys and values in the registry is very similar to displaying folders and files in Windows Explorer. To expand and compress keys, you can click the plus sign preceding the key name or you can double-click the key name.
- On the **Taskbar**, click the **Start** and **Run** buttons.
- In the textbox type "RegEdit" and click **OK**.
- The following 6 keys will be displayed:
  > HKEY_CLASSES_ROOT
  > HKEY_CURRENT_USER
  > HKEY_LOCAL_MACHINE
  > HKEY_USERS
  > HKEY_CURRENT_CONFIG
  > HKEY_DYN_DATA

- Select HKEY_LOCAL_MACHINE and another list of keys will be displayed.
- Select SOFTWARE and another list of keys will be displayed.
- Highlight the SheffieldMeasurement key.

MeasureMax+ can be configured for your personal preferences. This includes settings for user accounts, machines and probe tips. These settings can be saved and restored; however, this approach should not be used with different versions of MeasureMax+.

If you want to save a copy of your user configurations, follow these steps:
- Select Users in the Sheffield Measurement key.
- Click the **Registry** menu at the top of the window.
- Click **Export Registry File**.
- Export the file for later retrieval.

If you want to save a copy of your machine configurations, follow these steps:
- Select Machines in the Sheffield Measurement key.
- Click the **Registry** menu at the top of the window.
- Click **Export Registry File**.
- Export the file for later retrieval.

Since probe tips should be calibrated frequently (e.g., at least once a week), it may not be necessary to save this data. However, If you do want to save a copy of your probe storage files, follow these steps:
- Select Probes in the Sheffield Measurement key.
- Click the **Registry** menu at the top of the window.
- Click **Export Registry File**.
- Export the file for later retrieval.

If you want to retrieve a copy of user files, follow these steps:
- Select Users in the Sheffield Measurement key.
- Click the **Registry** menu at the top of the window.
- Click **Import Registry File**.
- Import the user file that you previously saved.

If you want to retrieve a copy of machine files, follow these steps:
- Select Machines in the Sheffield Measurement key.
- Click the **Registry** menu at the top of the window.
- Click **Import Registry File**.
- Import the user file that you previously saved.

If you want to retrieve a copy of your probe storage files, follow these steps:
- Select Probes in the Sheffield Measurement key.
- Click the **Registry** menu at the top of the window.
- Click **Import Registry File**.
- Import the probe file that you previously saved.

If MeasureMax+ is not installed and you want to delete its registry, follow these steps. Be aware that once you delete a key from the registry, it cannot be recovered.

- Select the Sheffield Measurement key.
- Click the **Edit** menu at the top of the window.
- Click **Delete**.

Always remember to close the Registry window when you are finished.

7.12. Windows 2000 Service Pack

Service pack 2 must be installed with Windows 2000 Professional. Typically, the service pack is installed immediately after the operating system is installed; however, sometimes it is necessary to reinstall the service pack after other products such as Visual Basic or MeasureMax+ have been installed.
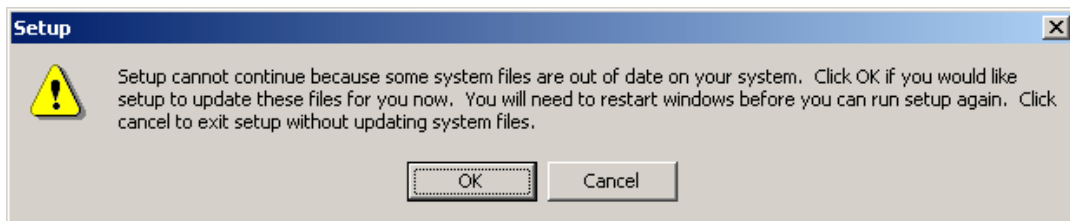
If you install a non-English version of Windows 2000 Professional, then you must install the appropriate service pack for that language. Only the English version is provided on the MeasureMax+ CD-ROM. You can download the appropriate Windows 2000 Service Pack 2 from the Microsoft web site at:
http://www.microsoft.com/windows2000/downloads/servicepacks/sp2/default.asp.

Follow these steps to install the service pack:
- Use Windows Explorer to display the "w2ksp2" folder on the MeasureMax+ CD-ROM. This folder contains the English version of the service pack. If you installed a non-English version of Windows 2000 Professional, do not install this file. You must obtain the correct service pack for your language.
- Double-click the W2KSP2.exe file and follow the prompts.

If the following error message is ever displayed, click **OK**. Windows must be restarted and the service pack must be reinstalled.

7.13. Windows XP Service Pack

Service pack 1 must be installed with Windows XP Professional. Typically, the service pack is installed immediately after the operating system is installed; however, sometimes it is necessary to reinstall the service pack after other products such as Visual Basic or MeasureMax+ have been installed.

If you install a non-English version of Windows XP Professional, then you must install the appropriate service pack for that language. Only the English version is provided on the MeasureMax+ CD-ROM. You can download the appropriate Windows XP Service Pack 1 from the Microsoft web site at:
http://www.microsoft.com/WindowsXP/pro/downloads/servicepacks/sp1/default.asp

Follow these steps to install the service pack:
- Use Windows Explorer to display the "wxpsp1" folder on the MeasureMax+ CD-ROM. This folder contains the English version of the service pack. If you installed a non-English version of Windows XP Professional, do not install this file. You must obtain the correct service pack for your language.
- Double-click the XPSP1.exe file and follow the prompts.

If the following error message is ever displayed, click **OK**. Windows must be restarted and the service pack must be reinstalled.

7.14. Bypass Logon Screen

It is possible to bypass the logon screen and automatically log on to a Windows 2000 system. This is useful for systems that have replaced the keyboard with a touch screen. Be aware that Administrator privileges are required to change the functionality of the logon screen.

One way to accomplish this is to activate the registry files on the MeasureMax+ CD-ROM:
- Use Windows Explorer to display the "Misc\AutoLogin" folder on the MeasureMax+ CD-ROM.
- Double-click the AutoLoginON.reg file to enable automatic log on. The user name is "CMMUSER" and there is no password. This file does not change the domain name. If you want to assign a different name, password and/or domain, you can copy the file to your local drive, edit the file, and then double-click it.

- If you want to disable the automatic log on, double-click the AutoLoginOFF.reg file.
- When you are asked if you want to add the information to the registry, click the **Yes** button.

Another way to accomplish this is to edit the System Registry as follows:
- On the **Taskbar**, click the **Start** and **Run** buttons.
- In the textbox type "RegEdit" and click **OK**.
- Work your way down the Registry tree to
  - HKEY_LOCAL_MACHINE\
    - SOFTWARE\
      - Microsoft\
        - WindowsNT\
          - CurrentVersion\
            - Winlogon
- You should see values for DefaultDomainName and DefaultUserName. If they are not the values you want to use for automatic log on, change them. Do not set the user name to Administrator.
- You also need a value for DefaultPassword. If it doesn't exist, create it as a string value. Set it to the password you want to use for automatic log on.
- Create a string value for AutoAdminLogon, if it doesn't already exist.
- Set the value to "1" to enable the automatic log on, or "0" to disable it.
- Exit RegEdit.
- When you restart your computer, Windows will automatically log you on.

Yet another way to control the Logon screen is with the **Logon** tab in the Tweak UI control. Refer to *Tweak UI* in Section 7 for assistance with this control.

7.15.   Tweak UI

The Microsoft® Windows® Shell Development Team has put together a set of productivity tools called PowerToys. Be aware that PowerToys are unsupported tools from Microsoft and Microsoft Technical Support is unable to answer questions about them; therefore, they should only be installed and used under the guidance of this document.

Tweak UI is a PowerToy that enables you to adjust your Windows user interface. It can be used to bypass the Windows logon screen and to correct problems when the mouse activates the window focus.

Follow these steps to install Tweak UI version 1.33:
- Use Windows Explorer to display the "Misc\TweakUI" folder on the MeasureMax+ CD-ROM. This folder does not exist on versions prior to 6.21; in which case, you can request Technical Support to send the file to you.
- Double-click the TweakUI.exe file and follow the prompts. This is a compressed file that will install in the Windows folder.

To run TweakUI, click the **Start** button on the **Taskbar** and then **Settings** and **Control Panel**. To learn more about it, use the Help tool in Tweak UI or open the TweakUI.hlp file in the Windows Help folder.

Warning! The **Show Control Panel on Start Menu Settings** check box on the **IE** tab must remain selected. If it is clear when **OK** is clicked, you will not be able to access Control Panel or Tweak UI. If this occurs, search for TweakUI.cpl in the Windows folder and double-click it to run Tweak UI and select the check box.

You can use the **Logon** tab in Tweak UI to bypass the Logon screen.

If you are experiencing problems with losing focus on a window when the mouse is moved, then you may need to clear the **Activation follows mouse (X-Mouse)** check box in the **Mouse** tab. MeasureMax+ versions 6.20 and 6.21 cause this problem every time STI or CADPath is used; however, this has been corrected in version 6.3. You can contact Technical Support for further assistance.

7.16. Register Files

Occasionally, you may need to register a file if you receive an update from Technical Support. The command to register a file is entered in the **Run** dialog box.

Follow these steps to register or unregister a file:
- To open the **Run** dialog box, click the **Start** button on the **Taskbar** and then **Run**.
- If you prefer, you can use the **Browse** button to load the file name into the **Open** box. Depending on the file type, you may need to change **File of type** to **All Files**. If you still can not view the file, then refer to *Microsoft Explorer Window* in Section 7 for assistance. As an alternative, you can always type the file name instead of clicking the file.
- To register a file, enter the command and file name in the **Open** box and click **OK**. This illustration shows the **Run** dialog box. Of course, you need to replace "c:\folder\file" with the correct drive, folder path and file name. You also need to insert quotation marks around the file specification and insert a space between the command and file specification. Before you click **OK**, proceed with the following steps to select the correct command and syntax.
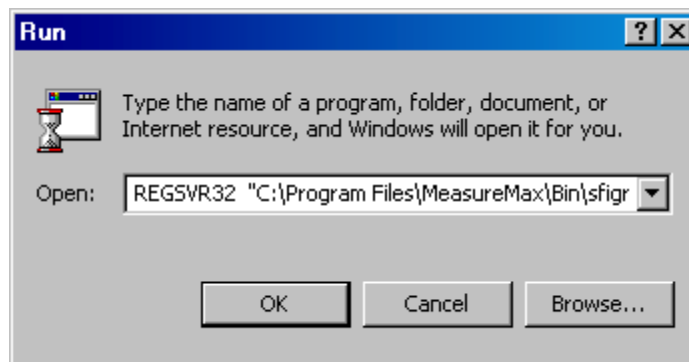
- To register a 'dll' file, enter the following in the Open box:
  ```
  REGSVR32   "c:\folder\file"
  ```
- To unregister a 'dll' file, enter the following in the Open box:
  ```
  REGSVR32   -U   "c:\folder\file"
  ```

- To register an 'exe' file, enter the following in the Open box:
  ```
  "c:\folder\file"  /REGISTER
  ```
- To unregister an 'exe' file, enter the following in the Open box:
  ```
  "c:\folder\file"  /UNREGISTER
  ```

8.   Trouble Shooting

This section on resolving problems lists some common questions that may occur when MeasureMax+ is installed. If you have a problem that isn't addressed here, please contact us. Our phone numbers are listed at the end of this section.

➢ Cannot establish communications with the MP.
- Make sure the RS-232 cable from the MP is firmly plugged into the serial port on the computer. Typically, the MP uses Com1.
- Make sure the product is using the correct machine.
- Make sure the communication settings are correct. Refer to *CMM Properties* in Section 7 for assistance.
    MeasureMax – In Control Center window, select **Machine** menu and **Properties**. In the CMM Station Properties dialog, select the **Communications** tab. Correct the settings and press **OK**.
    MaxLite – In the Setup Machine screen, select **Properties** and **On-Line**. In the CMM Station Properties dialog, select the **Communications** tab. Correct the settings and press **OK**.
    Single Touch Interface – Run STI Manager, select **Settings** menu and **Options**. In the Options window, make sure the correct machine is selected. If the correct machine is selected, then run MeasureMax to check the machine properties.

➢ MP 105 error: Host to MP communication interrupted.
- This is an informational message that frequently occurs when the computer has been restarted. It is normal for some random characters to be generated over the RS-232 line when the PC power is cycled. In this case, the error can be cleared and ignored. This is less likely to occur if the MP is turned off when you start your computer.
- If the error cannot be attributed to restarting the computer, then make sure the communication cable is not loose.
- If the error only occurs with Single Touch Interface, then the communication settings for the Single Touch Interface machine are probably not correct. Run MeasureMax to compare the machine properties of CMM1 and Single Touch Interface.
- If the error occurs frequently, call your Sheffield Automation service representative.
- Refer to the MeasureMax or MaxLite online help system for additional information.

➢ A MeasureMax product generated an unexpected error and I cannot restart it.
- Exit Windows and log on again. This clears aborted tasks from memory so the product can be started.
- Or, use the Task Manager to 'end' the dangling tasks. Press the **Ctrl**, **Alt** and **Del** keys simultaneously to display the Windows Task Manager. If any of the MeasureMax+ tasks are running, press the **End Task** button to remove them. The easiest way to determine which tasks belong to MeasureMax+ is to terminate all other applications that may be running.

➢ Shortcut on the Desktop does not run the MeasureMax+ application.
- If MeasureMax+ was reinstalled, the installation folder may have been changed. Delete the shortcut and refer to *Create Shortcut to Run MeasureMax+* in Section 7 to create a new shortcut.

➢ The MeasureMax+ application does not run automatically.
- If MeasureMax+ was reinstalled, the installation folder may have been changed. Delete the entry in the Startup folder and refer to *Automatically Run MeasureMax+ at Startup* in Section 7 to create a new startup.

➢ Touch screen is not responding to touches.
- Make sure the RS-232 cable from the touch screen is firmly plugged into the serial port on the computer. Typically, the MP uses Com1 and the touch screen uses Com2.
- Make sure the driver for the touch screen is installed and setup correctly.

➢ Background of some MeasureMax+ windows are two shades of gray.
- The Desktop display scheme must be Windows Classic. Right-click the Desktop and select **Properties** to display the Display Properties. Select the **Appearance** tab. Set **Scheme** to **Windows Standard** and click **OK**.

➢ Some of the icons in MeasureMax+ windows have a grainy appearance.
- The color palette must be greater than 256 colors. Right-click the Desktop and select **Properties** to display the Display Properties. Select the **Settings** tab. Set **Colors** to **High Color (16 bit)** or **True Color (32 bit)**, click **Apply** and follow the prompts.

➢ Wizards are getting lost behind other windows.
- If you have two or more windows visible and notice that the focus changes as the mouse is moved from one window to another, then you will experience difficulty when a full-size window overlays a smaller window. Refer to *Tweak UI* in Section 7 for instructions to change the **Activation follows mouse** setting.

8.1.   Training

Please visit our web site for the current training schedule. Our web address is www.sheffieldautomation.com.

You can also contact your Sales Representative or call our Training Department at 1-800-558-4808.

International users must contact your Sales Representative or visit our web site at www.sheffieldautomation.com.

8.2. Sheffield Automation Aftersales Support

To order parts or arrange for service, domestic users may call us at 1-800-558-4808.

International users should contact your Sales Representative. As an alternative, you may e-mail a message to TechSupport@Sheffield-cmm.com or send a fax to 1-920-906-7015.

8.3. Technical Support

For 24 hour technical phone support, domestic users may call the Sheffield Automation aftersales support line at 1-800-558-4808.

We prefer that you contact us via e-mail on the Internet. Our address is TechSupport@Sheffield-cmm.com. If you cannot call us or do not have access to e-mail, then you can send us a fax at 1-920-906-7015.

International users may contact your Sales Representative, send us an e-mail message, or send us a fax at 1-920-906-7015.

Before you contact us, please have the version numbers and service packs for your installed operating system, MeasureMax+ product and Measurement Processor available. It is particularly important that you try to narrow a problem down to the actual cause and provide us with precise details of the situation. A form is listed on the next page that shows the information we are looking for. To provide the best service, please provide this information when you contact us.

8.4. Technical Support Form

SHEFFIELD AUTOMATION
Web: www.sheffieldautomation.com
E-Mail: TECHSUPPORT@SHEFFIELD-CMM.COM
Fax: 1-920-906-7015 (Attn: Tech Support)

Date _____ Phone _____
Company Name _____ Fax _____
Address _____ E-Mail _____
Contact Person_____ Pager _____

Machine Configuration:
CMM SERIAL #: (back of CMM) _____ MP Version _____
__ Gantry, __ RS, __ 1808, __ Horizon, __ Discovery, __ Endeavor
CMM MODEL: (front of CMM)_____ (circle) Manual or Automatic (DCC)
Measurement Processor: __ SMP400, __ SMP300, __ MP35, __ MP30, __ MP4
Probe Head: ___ PH9/PH10 (motorized rotating head) or ___ (manual probe head)
Probe: Automatic Probe Changer or Stylus Changer (Y/N)? _____
Probe Type: __ TP1, __ TP2, __ TP6, __ TP7, __ TP20, __ TP200, __ SP600

Computer Configuration:
Model: _____ Dell, OmniTech, G&L, HP, Digital, other_____
Printer: _____ Network Card: _____

Software:
Operating System: __ Win XP, __ Win 2000, __ Win 95, __ Win/NT, __ OS/2 Ver?__,
__ HP/DOS
CMM Software: (MeasureMax, MaxLite, DirectInspect, OFI, MP4/ST,other _____) Ver? ___
Programming Software: __VisualBasic, __MSBasic, __HP Basic, __Vax Fortran Ver? _____
Attended Training (y/n)? ___ Date and Class? _____

Question: (What is the nature of your problem? Can the problem be duplicated?)

_____
_____
_____

What have you done to try to resolve this issue?

_____
_____

Suggestions: List all errors and messages appearing on the RCU, MP, Screen, & XYZ Display,
including symptoms and any recent changes/modifications to the system. Use the On-Line HELP
Facility. Close ALL programs, Shutdown Windows Operating System, Turn off the computer,
Turn off the CMM (MP), then power up the computer followed by the MP.

9.   Minimum Requirements

9.1.   Measurement Processor

This software requires MP30/35/30-II firmware V19.2 or SMP-300 firmware V22.0 (or later) or SMP-400 firmware V 106.0 (or later). Note that some features require the SMP-400 controller. Some features in MeasureMax+ 6.5 require SMP-400 firmware V109.0.

9.2.   Microsoft® Software

Microsoft Windows 2000 Professional or Windows XP Professional is the required operating system for MeasureMax+ 6.5.

Microsoft Visual Basic version 6 must be installed prior to installing MeasureMax. The Learning Edition is recommended; however, the Professional and Enterprise editions are also supported. The Visual Studio Service Pack 5 is required for all editions of Visual Basic.

MaxLite does not use Visual Basic, nor require it to be installed.

Power User privileges are needed to install MeasureMax+. To run MeasureMax+ the user must have Power User privileges and the desktop icons must have Power User access permissions.
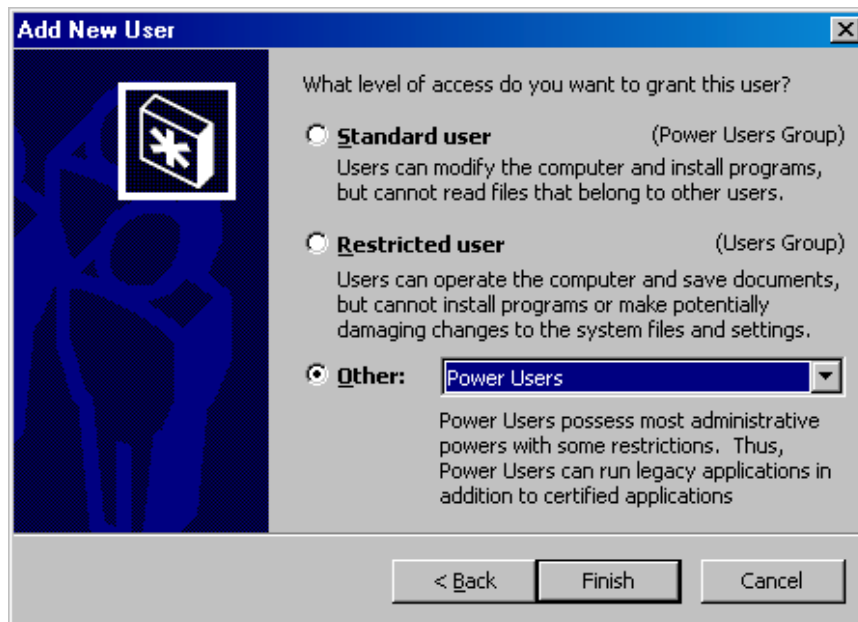
9.3.   Computer Configuration

Due to the complexity of the MeasureMax+ software system and the variety of computer hardware currently available, Sheffield Automation cannot warrant the software to run correctly on all computer systems nor can our Technical Support Department provide support for third-party computer systems. The following are the current minimum operating system hardware requirements for a MeasureMax+ system. Other optional software packages available from Sheffield Measurement may have additional hardware requirements. Systems provided by Sheffield Automation exceed the minimum requirements.

Minimum system requirements for running the Windows® 2000 Professional operating system, per Microsoft.	
Computer/Processor	133 MHz or higher Pentium-compatible CPU.
Memory	At least 64 megabytes (MB) of RAM; more memory generally improves responsiveness.
Hard Disk	2 GB with 650 MB free space.
CPU Support	Windows 2000 Professional supports single and dual CPU systems.
Drive	CD-ROM or DVD drive.
Display	VGA or higher resolution monitor.
Keyboard	Required.
Additional Information	http://www.microsoft.com/windows2000/professional/evaluation/sysreqs/default.asp

Minimum system requirements for running the Windows® XP Professional operating system, per Microsoft.	
Computer/Processor	PC with 300 megahertz or higher processor clock speed recommended; 233 MHz minimum required (single or dual processor system);* Intel Pentium/Celeron family, or AMD K6/Athlon/Duron family, or compatible processor recommended
Memory	128 megabytes (MB) of RAM or higher recommended (64 MB minimum supported; may limit performance and some features)
Hard Disk	1.5 gigabytes (GB) of available hard disk space*
Drive	CD-ROM or DVD drive.
Display	Super VGA (800 × 600) or higher-resolution video adapter and monitor
Keyboard	Keyboard and Microsoft Mouse or compatible pointing device
Additional Information	http://www.microsoft.com/windowsxp/pro/evaluation/sysreqs.asp

* Actual requirements will vary based on your system configuration and the applications and features you choose to install. Additional available hard disk space may be required if you are installing over a network.

MeasureMax+ is released on a CD-ROM and service packs are usually released on floppy disks, so you will need the appropriate devices for installations. The monitor must support SVGA (800x600) or XVGA (1024x768) resolution; however, the STI products do support VGA (640x480) resolution to accommodate the Elo touch screens.