Microvue

Wavevue Measurement Studio

Software Installation Guide

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CHAPTER

1 Introduction

What is the Installation Guide?

The Installation Guide is part of the overall Wavevue manual set illustrated below. Its purpose is to guide you through the process of installing Wavevue, performing an initial run to verify installation, and setting up user accounts. Refer to the Application Level User's Guide and various module User's Guides for detailed instructions on using Wavevue to perform measurements.

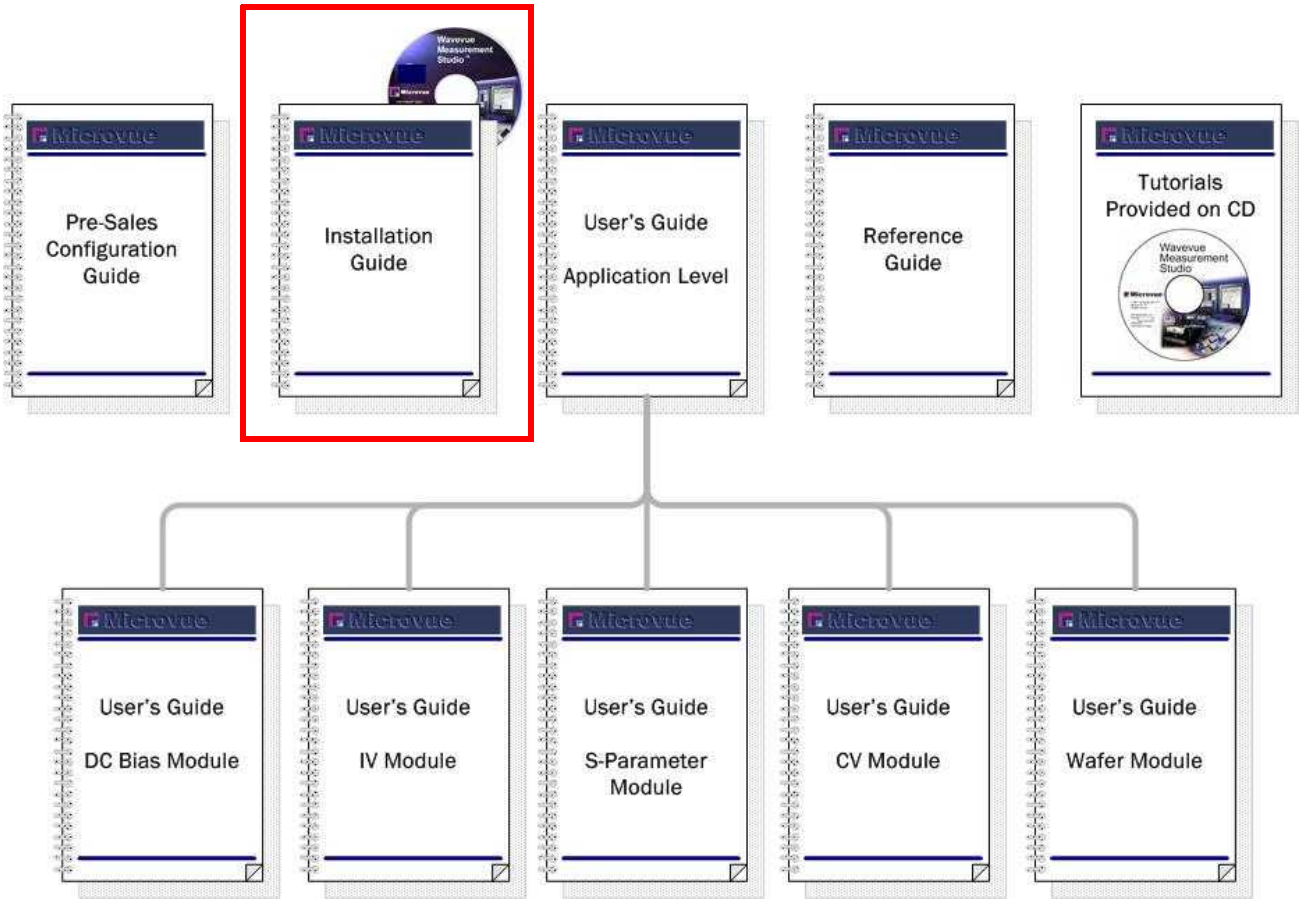

Figure 1. Manual Set Overview

Who should read the Installation Guide?

The Installation Guide is intended to be used by IT personnel or the user who will be acting as the system administrator for Wavevue. No measurement expertise or experience is required to get Wavevue installed and running. Prior experience with cabling GPIB test systems will be helpful in setting up an Instrument Edition of Wavevue to perform testing, however.

What will I learn from the Installation Guide?

The installation Guide will lead you through the following phases of Wavevue installation:

Table 1. Installation Guide Task Overview

Chapter	Title	Description
2	Getting Ready to Install Wavevue	• Checking the Wavevue box contents • Installing a GPIB interface and software • Configuring other third party applications for Wavevue compatibility
3	Installing Wavevue for the First Time	• Installing the Wavevue software • Installing the software license key • Overview of the Wavevue directory structure
4	Starting Wavevue	• Running Wavevue to verify the installation • Introducing the login window • Introducing the Open Project window • Verifying GPIB communications • Managing user accounts
5	Upgrading Wavevue	• Installing complete Wavevue upgrades • Installing patch Wavevue upgrades • Installing software license key upgrades

Where do I go from here?

Once you are comfortable that the Wavevue installation was successful, you should proceed to the Application Level User's Guide and various module User's Guides for detailed instructions on how to use Wavevue to perform measurements.

Notational Conventions

Throughout this manual, various symbols will be used to identify important information that may affect software operation, user safety, or device safety. This manual uses the following conventions:

Table 2. Notational Conventions

Symbol	Description of Symbol
 WARNING	WARNING is used to indicate the presence of a hazard which can cause severe personal injury, death, or substantial property damage if the warning is ignored.
 DANGER	DANGER is used to indicate the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the warning is ignored. This includes situations that ***may*** cause damage to hardware via electrostatic discharge (ESD).
 CAUTION	CAUTION is used to indicate the presence of a hazard which will or can cause minor personal injury or property damage if the warning is ignored.
 NOTE	NOTE is used to indicate important information about the product that is not hazard related. This might include useful tips regarding ease of use or possible errors.
 WWW	The symbol indicates a World Wide Web address.

Manual Conventions

- Throughout the manual set, the words Window, Screen and Form may be used interchangeably to refer to the depiction of a user interface. Unless otherwise noted, there is no difference between these terms.
- The following format is used throughout the manual set to indicate the sequence of menu navigation, where each ">" indicates another menu level:
  Configure > *Calibrations* > *S-Parameters*

CHAPTER

2 Getting Ready to Install Wavevue

The Wavevue install should be straightforward and trouble-free if you take a few minutes to collect everything you need and verify all system requirements prior to starting. Since Wavevue interacts and relies on other software for some of its functionality, it's a good idea to verify those other programs independently of Wavevue. In the unlikely event of problems, that will greatly simplify the task of troubleshooting.

Gathering materials

Most of the material you will need to install Wavevue is contained in the box you purchased. The only additional material required is a GPIB interface card if you are running the Instrument Edition of Wavevue. Refer to the picture below to verify the contents of the box. Opening the front cover should reveal the Wavevue Installation CD and also the software license key. In the back section of the box, you should find the License Agreement as well as all of the manuals you will need, including this one.

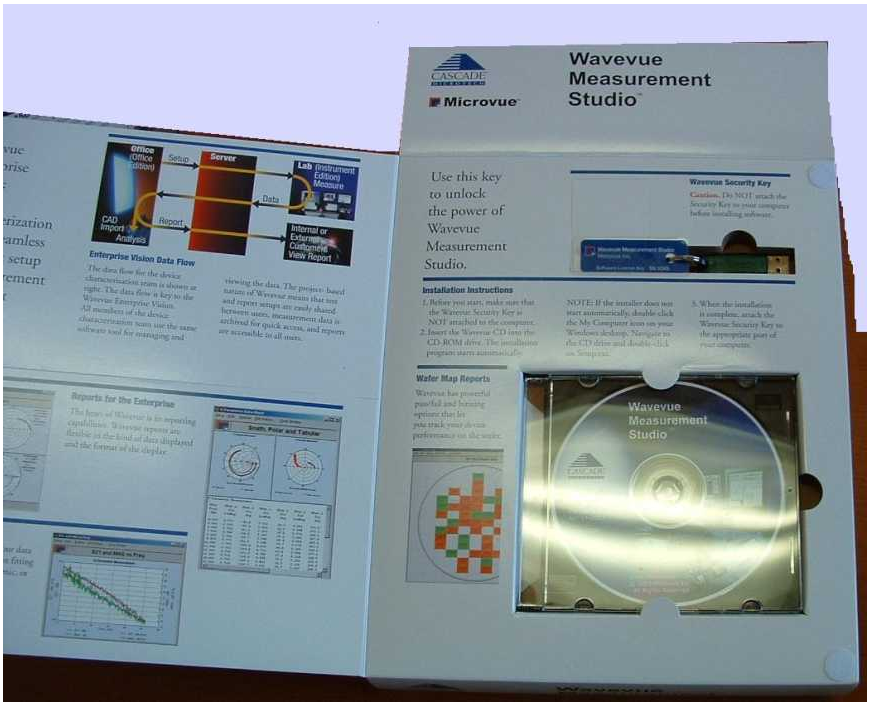

Figure 2. Wavevue box

Checking the system requirements

Wavevue is a high-end software product and requires a high performance computer to perform to its full potential. Verify that your computer meets at least the minimum requirements and preferably the recommended requirements to get the best results from your software investment.

NOTE

Wavevue is designed to be usable at 1024x768 resolution for use on laptop computers, but it is recommended that you run it at the highest resolution supported by your video card and monitor.

Table 3. System Requirements

Item	Minimum[1]	Recommended[1]
Video Monitor	17" CRT or 15" LCD	19" CRT or 18" LCD
Video Card[1]	1280 x 1024 @75Hz min 16 bit color	1600 x 1200 @ 75Hz 32 bit color
Memory	128MB	256MB
Processor Type	Pentium III	Pentium IV or above
Processor Speed	600MHz	1.8GHz
Hard Disk Drive	4.0GB	20.0GB
CD-ROM	4X	48X
Network Card	10BaseT	100BaseT
Mouse Keyboard USB Port	Required Required Required [2]	Required Required Required [2]
Operating System	Windows 2000 (*Instrument or Office Edition*) Windows XP, ME, 98 (*Office Edition only*)	Windows 2000 (*Instrument or Office Edition*) Windows XP, ME, 98 (*Office Edition only*)
GPIB Card (*Instrument Edition Only*)	National Instruments ISA or PCI Hewlett Packard 83250A	National Instruments PCI Hewlett Packard 83250A

[1] These specifications will change as technologies change. Please refer to the Microvue website for the most up to date system requirements and recommendations.
[2] Required for software license key

Configuring a GPIB interface

Although Wavevue supports other modes of communication, most test instruments are controlled via a GPIB interface. In order for Instrument Editions of Wavevue to control instruments, you must have a GPIB interface installed in your computer.

NOTE

For Office Edition installations, skip to the next step. Office Edition Wavevue will not control test instruments, even if a GPIB interface is installed in the computer.

Installing the card

Wavevue supports National Instruments and Agilent GPIB interface cards. Refer to the documentation that came with your computer for instructions on opening the case. Refer to the manufacturer's GPIB interface documentation for detailed installation instructions.

CAUTION

Dangerous voltages may be exposed when you open the computer case. Always unplug the computer before attempting to remove the cover.

WARNING

PC interface cards contain static sensitive components. Observe customary precautions for handling static sensitive material when handling the card.

Installing the NI software

National Instruments provides two different levels of driver software with their interfaces. Wavevue uses the low-level commands in the NI 488.2 software. It does not use the higher level commands contained in the NI VISA software, so there is no need to install this software. Follow the manufacturer's instructions to install the NI 488.2 software on your computer.

NOTE

Earlier versions of NI 488.2 software had some stability problems that occasionally cause Wavevue and other application programs to crash. It is highly recommended that you upgrade to NI 488.2 version 2.0 or later.

Configuring the NI software

The default settings of the NI 488.2 software should be compatible with Wavevue. Double-checking the settings is a good idea, though. It also verifies the GPIB hardware and software installation, independent of Wavevue.

1. Run the NI Measurement and Automation Explorer (MAX).
2. Click the *Devices and Instruments* icon to expand the tree view.
3. Click the icon for your interface card (*GPIB0* by default) and then click the *Properties* icon. The window shown below will appear:

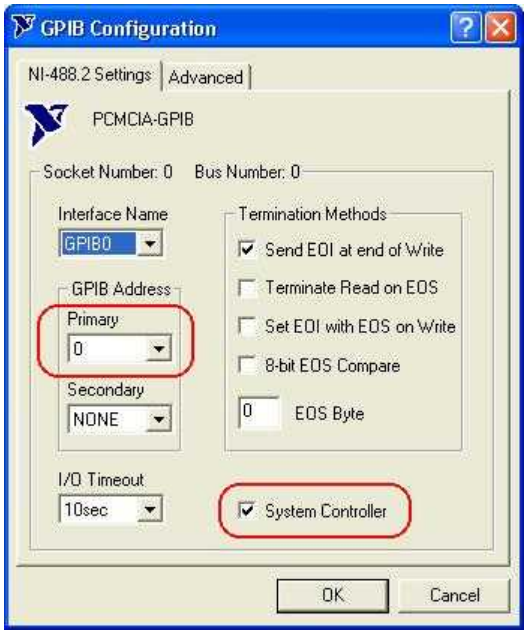

Figure 3. NI GPIB 488.2 Configuration

4. Note the *Primary* address setting for later use configuring Wavevue instruments.
5. Make sure that the *System Controller* checkbox is checked.
6. Close the GPIB Configuration window and exit the Measurement and Automation Explorer.

Installing the Agilent software

The Agilent GPIB software is not separated into two distinct layers like the National Instruments software. Refer to the manufacturer's documentation for detailed instructions on installing the VISA software.

Configuring the Agilent software

The default settings for the GPIB software should be compatible with Wavevue. Refer to the manufacturer's documentation to verify them, however.

Configuring Nucleus for Wavevue compatibility

A measurement system which employs both Wavevue and Nucleus can be configured in two different ways. The figure below illustrates the Shared Configuration and the Remote Configuration. Refer to the appropriate section below to verify that your Nucleus settings are correct for the configuration you plan to run.

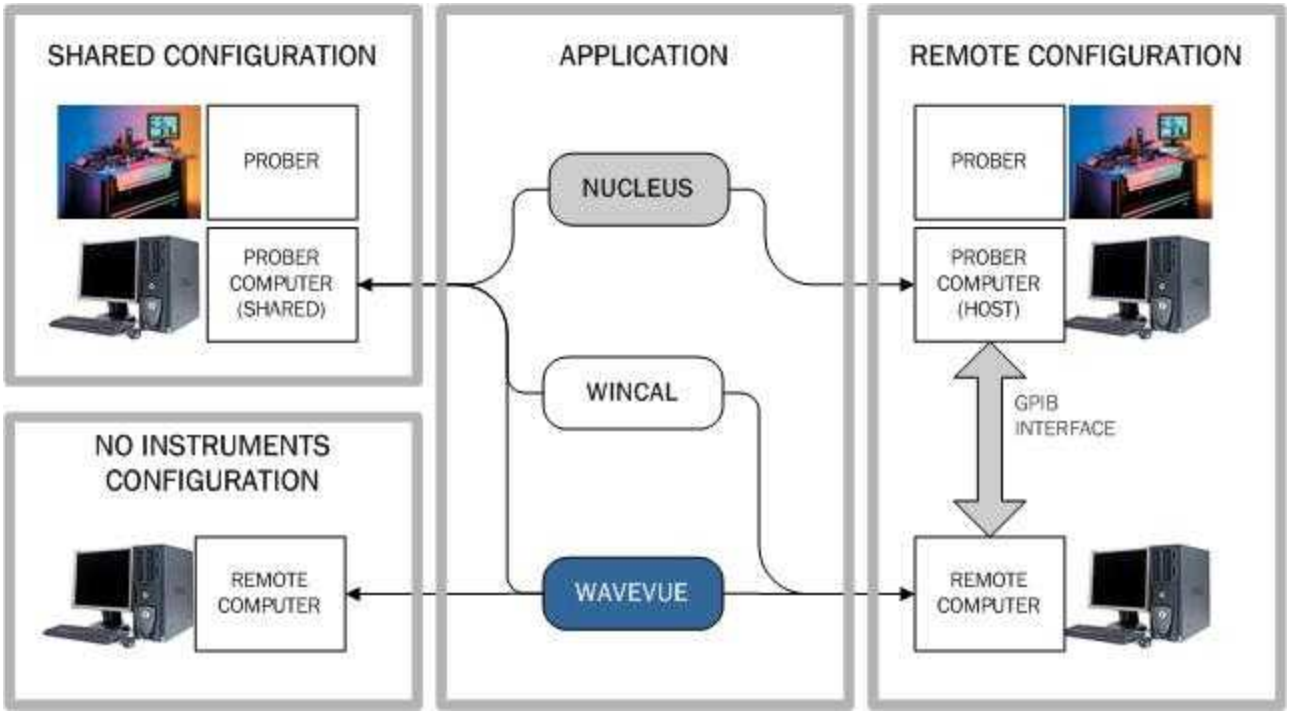

Figure 4. Wavevue Remote Control Configurations

Shared Configuration

When Wavevue and Nucleus reside on the same computer, Wavevue communicates with Nucleus via a dynamic link library (DLL) that employs Dynamic Data Exchange (DDE). In this configuration, you must ensure that Nucleus' GPIB communication is disabled. When Nucleus has GPIB communication enabled, it polls the GPIB bus very frequently checking for commands. This interferes with Wavevue's ability to communicate with GPIB test instruments and effectively renders Wavevue unusable for measurement. Refer to the section below which corresponds to your revision of Nucleus to verify that it is set up property to be compatible with Wavevue.

Nucleus 2.6

1. Select *Start* > *Cascade Microtech* > *Nucleus 2.6* > *Hardware Configuration*. The hardware configuration utility will open with an empty display. Click the Open icon and select "default.cfg" and the display should appear as below:

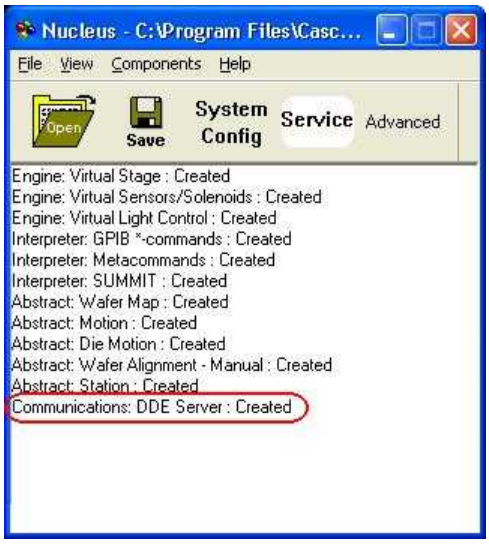

Figure 5. Nucleus 2.6 Hardware Configuration

2. Verify that the highlighted driver, “Communications: DDE Server” appears on the list and that the driver “Communications: GPIB” does not appear.

3. If the settings are not correct, click the *System Config* icon and change the settings to match the window below:

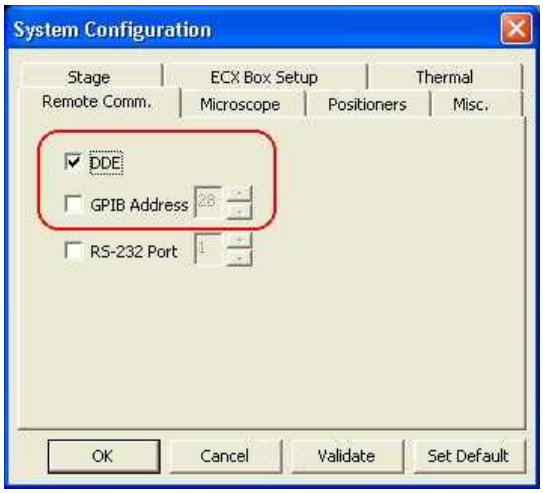

Figure 6. Remote Communications Settings

4. Click *OK* when done, then click the *Save* icon and save the changes to “default.cfg”. Select *File* > *Exit* to exit the Hardware Configuration application.

Nucleus 2.5

1. Select *Start* > *Cascade Microtech* > *Nucleus 2.5* > *SystemMgr*. The System Manager will start, but will be in a minimized state. Look for the *SystemMgr* icon in the system tray. Right click it and select *Maximize* and the System Manager window should fill the screen.

2. Select *File* > *Open* and open "default.cfg". The Component List and Status window should now appear as below:

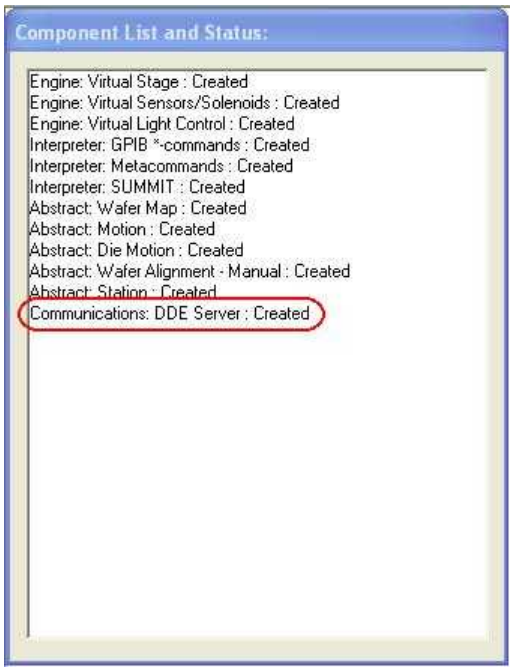

Figure 7. Nucleus 2.5 Component List

3. Verify that the highlighted driver, "Communications: DDE Server" appears on the list and that the driver "Communications: GPIB" does not appear.

4. If the settings are not correct, click *Components* > *Add* to add the "Communications: DDE Server" driver and *Components* > *Delete* to remove the "Communications, GPIB" driver.

5. Once the settings are correct, click the *Save* icon and save the changes to "default.cfg". Select *File* > *Exit* to exit the System Manager.

Remote Configuration

When Wavevue and Nucleus reside on separate computers, Wavevue communicates with Nucleus via GPIB. In this configuration, you must ensure that Nucleus' GPIB communication is enabled. Refer to the section below which corresponds to your revision of Nucleus to verify that it is set up property to be compatible with Wavevue.

Nucleus 2.6

1. Select *Start* > *Cascade Microtech* > *Nucleus 2.6* > *Hardware Configuration*. The hardware configuration utility will open with an empty display. Click the *Open* icon and select "default.cfg" and the display should appear as below:

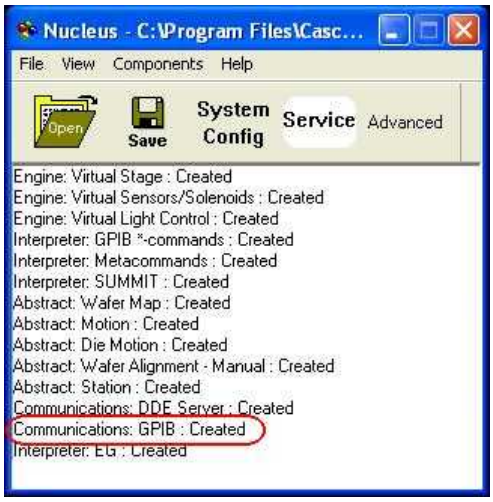

Figure 8. Nucleus 2.6 Hardware Configuration

2. Verify that the highlighted driver, "Communications: GPIB" appears on the list. It doesn't matter whether the driver "Communications: DDE Server" appears or not.

3. If the settings are not correct, click the *System Config* icon and change the settings to match the window below:

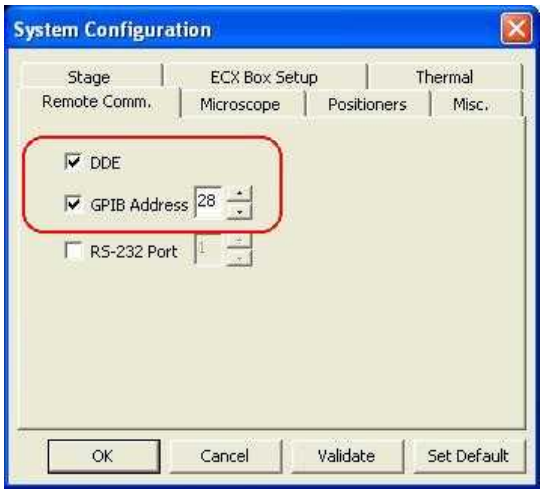

Figure 9. Remote Communications Settings

4. Click *OK* when done, then click the *Save* icon and save the changes to "default.cfg". Select *File* > *Exit* to exit the Hardware Configuration application.

Nucleus 2.5

1. Select *Start* > *Cascade Microtech* > *Nucleus 2.5* > *SystemMgr*. The SystemMgr will start, but will be in a minimized state. Look for the SystemMgr icon in the system tray. Right click it and select Maximize and the SystemMgr window should fill the screen.

2. Select *File* > *Open* and open "default.cfg". The Component List and Status window should now appear as below:

Figure 10. Nucleus 2.5 Component List

3. Verify that the highlighted driver, "Communications: GPIB" appears on the list. It doesn't matter whether the driver "Communications: DDE Server" appears or not.

4. If the settings are not correct, click *Components* > *Add* to add the "Communications: GPIB" driver.

5. Once the settings are correct, click the Save icon and save the changes to "default.cfg". Select *File* > *Exit* to exit the SystemMgr.

Configuring WinCal for Wavevue compatibility

WinCal and Wavevue both control test instruments via the GPIB interface in the computer. However, they don't directly communicate with each other, so there are no special settings required to make WinCal compatible with Wavevue.

Configuring Microsoft Office for Wavevue compatibility

Wavevue can export reports to Microsoft Word. This function requires Word to have the Windows Metafile graphics filter installed. Early versions of Word required this filter to be selected as part of a custom installation, but all later versions include it by default. So there are no special settings required to make Word compatible with Wavevue.

CHAPTER

3 Installing Wavevue for the First Time

Now that you have completed the pre-installation tasks, you are ready to actually install the Wavevue software. This should be a very straightforward procedure. There are currently no installation options other than the target directory, so you don't have to worry about getting all of the components installed correctly.

NOTE

The figures in this section were generated in Windows XP and may appear slightly different in other versions of Windows. But the functionality will be the same even if they look slightly different.

Installing the software

NOTE

Do not install the Wavevue software license key on your computer prior to installing the Wavevue software. Doing so may cause the last step of the installation to fail and Wavevue will be unable to read the software license key.

NOTE

If you are installing a DEMO version of the software, the installation procedure is exactly the same as for a full-function copy. The only difference you will see is on start-up, which will be detailed in the next chapter.

Insert the Wavevue Measurement Studio CD into your computer. The install program should automatically start, leading you through the installation. If for some reason the install program doesn't automatically start, use Windows Explorer to navigate to the CD drive and manually run "Setup.exe".

A couple of status windows may pop up for a few moments informing you of the status of Windows Installer preparing to install the program. Once they have completed, the Welcome window will appear:

Figure 11. Installer Welcome Window

Click *Next* to proceed. The License Agreement window will appear next:

Figure 12. Installer License Agreement Window

You must accept the license agreement to continue the installation process. Select “I accept” and click *Next* to continue. The Customer Information window will appear:

Figure 13. Installer Customer Information Window

Enter your user name and company name in the fields and click *Next*. The Destination Folder window will appear:

Figure 14. Installer Destination Folder Window

By default, Wavevue will install to "C:\Program Files\Microvue\Wavevue". Most customers will keep this setting, but you can change the location with no problems if you prefer a different location. Click *Next* to continue. The Ready window will appear next, summarizing all of the information entered so far:

Figure 15. Installer Ready to Install Window

Verify that all of the information display is correct and click *Install* to continue. The installer will copy all of the required files to your computer. This may take several minutes. When the process is complete, the Install Finished window will appear:

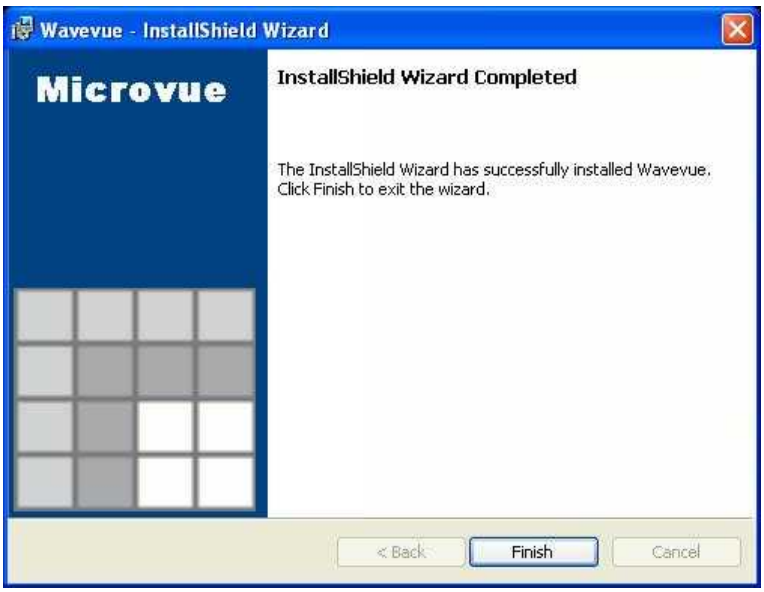

Figure 16. Installer Finished Window

Click *Finish* to continue. This window will not disappear yet, but you will see a small status window appear for a few seconds indicating that the hardware driver for the license key is being installed. When that process is complete, a confirmation dialog will appear:

Figure 17. HASP Key Driver Finished Dialog

Click *OK* to complete the installation process for Wavevue. This window and the previous window should both disappear. The software installation is now complete.

Installing the hardware key

Insert the Wavevue license key into any available USB port on your computer. It will automatically be recognized and configured. Wavevue reads the license key on start-up and frequently re-reads it while running, so you must leave it installed in the USB port the entire time the program is running.

Figure 18. Wavevue License Key

Understanding Wavevue directory structure and files

Along with the main Wavevue executable program, the installation also includes a large number of system files required for operation. The tables below describe where these files are located and what they do.

NOTE

Unless otherwise noted, all paths are relative to the folder specified by the Destination Folder window during the installation process.

System Files

Wavevue system files include graphics for the various user interfaces and configuration files. They should not be altered in any way by the user or Wavevue may cease to function. They will also all be overwritten by a complete Wavevue upgrade, so any changes to them will be lost.

Table 4. Wavevue System Files

Directory	Content
Application Utilities	Miscellaneous user interface graphics files Wavevue sound files HASP key driver install program
Calibration Data	System calibration data files. Note that these are different from measurement calibration data files.
Corporate Logos	Cascade and Microvue logo interface graphics files
Device Tags	Configuration files which define the Meas Info user interface for Wavevue
Device Types	Device definition files for all of the built-in standard Wavevue devices
Device Types\Device Bitmaps	User interface graphics files for all of the built-in standard Wavevue devices
Help Files	The on-line manual and additional Wavevue help files
Local Environment	Preference file which stores the toolbar settings for Wavevue as well as the locations of Office components and other miscellaneous application settings.
Program	The Wavevue executable file
Standard Projects	The directory tree under this folder contains all of the built-in Wavevue standard projects. These should be used as a starting point to build user projects, but not edited directly, as they are overwritten in each successive Wavevue upgrade
Toolbars	Configuration file used to build the Wavevue toolbars.
Toolbars\Icons 16 by 16	Graphics files for the toolbars in 16x16 bit mode
Toolbars\Icons 32 by 32	Graphics files for the toolbars in 32x32 bit mode

User Files

Wavevue also builds a directory structure where various user files are stored. They may be added and altered and will not be affected by subsequent Wavevue upgrades.

Table 5. Wavevue User Files

Directory	Content
Accessory Data	Power sensor cal tables, noise source ENR tables, etc.
Device Tags	Wavevue creates a default "device tags.txt" file in this directory which is overwritten by each software upgrade. You can add additional files to define custom Meas Info configurations.
Device Types	Wavevue stores the standard device type definition files here. Additional user files may be added to this directory to define custom device types. The standard device types will be overwritten by each software upgrade, but the custom device types should be unaffected.
Device Types\Device Bitmaps	Wavevue stores the standard device type graphics files here. Additional user files may be added to this directory to define custom device types. The standard device types will be overwritten by each software upgrade, but the custom device types should be unaffected.
Standard Projects	Wavevue stores the standard projects in the directory structure below this folder. You are allowed to edit these projects, or store additional projects here, but it strongly discouraged, since you will lose any changes each time you install a software upgrade.
User Accounts	The User Name and Password list User Preference and Default Directory files for each user (*only when run in Local Login mode*)
C:\Wavevue Data	Wavevue creates this directory and uses it as the default for all project setup and data files, unless otherwise specified.

Troubleshooting

If you run into trouble during the installation, check the following questions and answers first. If those don't solve your problem, please refer to the Getting Help chapter at the end of this manual for further assistance.

The Wavevue installation didn't automatically start when I inserted the CD into my computer.

The installation CD should automatically run when inserted, but if it doesn't, you can still start the installation process manually. Use Windows Explorer to navigate to the CD drive. Double-click "Setup.exe" and the installation process will begin.

Windows can't read the installation CD.

All Wavevue installation CD's are tested prior to leaving the factory. However, it's possible that the CD was damaged during shipping or unpacking. In this case, please contact the factory for a replacement CD.

The installation process seemed to hang on the last step while trying to install the HASP driver.

This can happen if the software license key is attached to the USB port while trying to install Wavevue. If necessary, re-boot the computer. Use *Control Panel > Add or Remove Programs* to uninstall Wavevue, and repeat the installation with the software license key removed.

CHAPTER

4 Starting Wavevue

At this point, you should have successfully completed installing Wavevue. Starting the program and performing a few simple tasks is the best way to verify that everything went well.

NOTE

If you are running a DEMO copy of Wavevue, the first window you will see is a notice of the DEMO status and a summary of how many days and runs you have remaining before the DEMO expires.

Logging into Wavevue

Double click the Wavevue desktop icon to start the program. The first window that appears is the Welcome window:

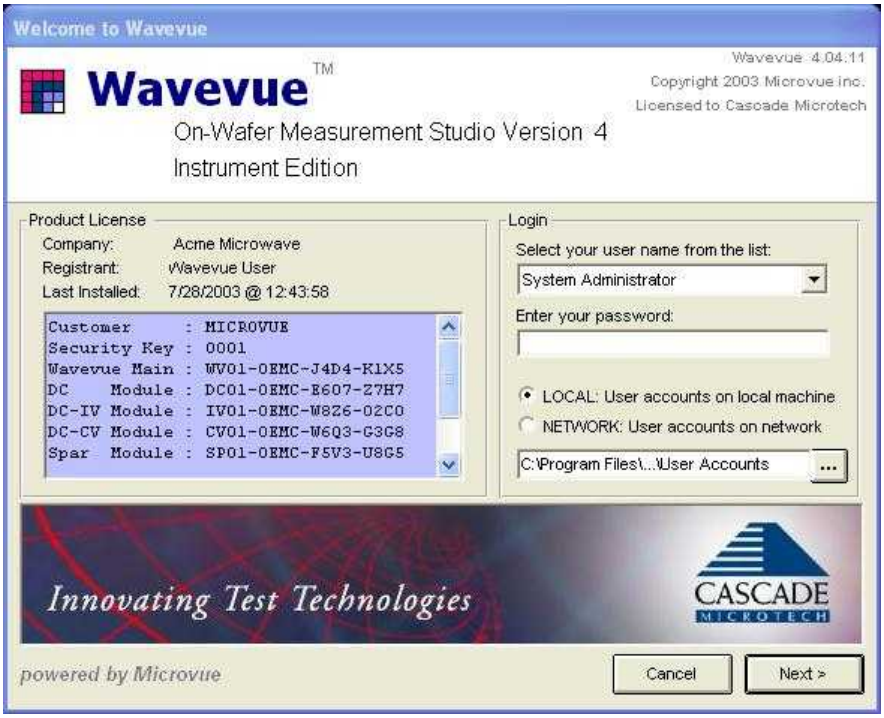

Figure 19. Wavevue Welcome Window

The Welcome window displays some useful information about Wavevue and also allows you to log into the program. Wavevue requires you to log in so that the system administrators can implement different user access levels, and also so that different users can maintain different preferences.

Default passwords

On a new installation, Wavevue creates two user accounts – System Administrator and Guest User. The default passwords for these accounts are shown in the table below. Note that Wavevue passwords are case-sensitive, so make sure the caps lock key isn't on.

Table 6. Default Account Passwords

User Name	Password
System Administrator	admin
Guest User	*<no password>*

Wavevue also remembers the last user to log in and pre-selects the user on the next run. On the initial run, the default user is System Administrator. Type the password in the field as shown below and click *Next* to continue.

Figure 20. Welcome Window Login Detail

NOTE

Since the default System Administrator password is the same for all Wavevue installations, you may wish to change it for security purposes after the initial login. Refer to Changing passwords later in this chapter for detailed instructions.

License list display

The list of modules licensed by the license key is displayed in the Welcome window as well. The blue display will show your license key number as well as each available licensed module. If you do not see licenses for all of your expected modules, double-check that you installed the correct software license key. If you still feel that you are missing licenses, refer to the Getting Help chapter at the end of this manual to contact the factory.

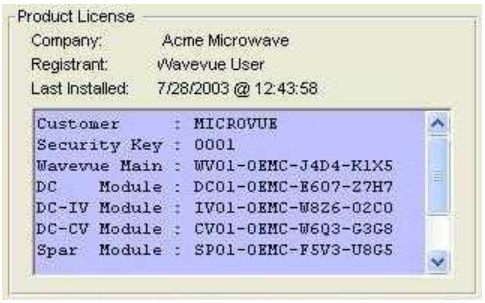

Figure 21. Welcome Window License Info Detail

Local vs. Network account management

Wavevue supports two different user account management schemes. In the default LOCAL scheme, a separate user name and password list and user preference files are maintained on each machine. The system administrator can optionally set up a NETWORK login scheme where the user list and user preference files reside on a central network drive. This was, the user preferences follow each user from machine to machine around the enterprise and the administration task is simplified on multi-seat installations.

Figure 22. Welcome Window Network Detail

Searching for complementary applications

Wavevue is able to export reports to Microsoft Word. In order to be able to automate Word, it needs to know its location on the computer hard drive. Wavevue also uses Adobe Acrobat Reader to display the on-line manuals. Again, it needs to know where the Acrobat Reader resides on the hard drive. Since this search can be a little time-consuming, Wavevue performs the search once on the initial run and records the locations in the environment file. The search is performed for the following applications:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Adobe Acrobat Reader

If any of these applications are added to the computer after the initial Wavevue run, the search can be repeated by selecting *Tools > Search for Office Applications...*

Simulation lock warning

Office Editions of Wavevue always run in Simulation mode. In this mode, you can run measurement scripts, but Wavevue doesn't actually control any instruments. Instead, it simulates measurement data. This functionality exists to allow you to test out reports off-line during project creation without needing to tie up your expensive test stands. Simulation mode is also available in Instrument Edition of Wavevue. Click the Simulation icon on the auxiliary toolbar to toggle Simulation mode on or off.

On start-up, Instrument editions of Wavevue search the hard drive for the driver files for GPIB interfaces. If a recognized interface is found, Wavevue sends a low level GPIB command to do a quick check of the interface hardware. If either the driver search or hardware test fails, the following message appears, and Wavevue will be locked into Simulation mode where GPIB access is no longer available.

Figure 23. Simulation Lock Warning Dialog

NOTE

This is not a normal operating condition. When running Instrument Edition on a computer with a properly configured GPIB interface, you will never see this warning.

Creating a blank project

Once all of the start-up checks are complete, Wavevue displays the Open Project window. This window allows you to open a Standard project, or one of your own custom projects, or to start with a blank slate. It is explained in much greater detail in the Application Level User's Guide. For this exercise, creating a new project is the most efficient next step.

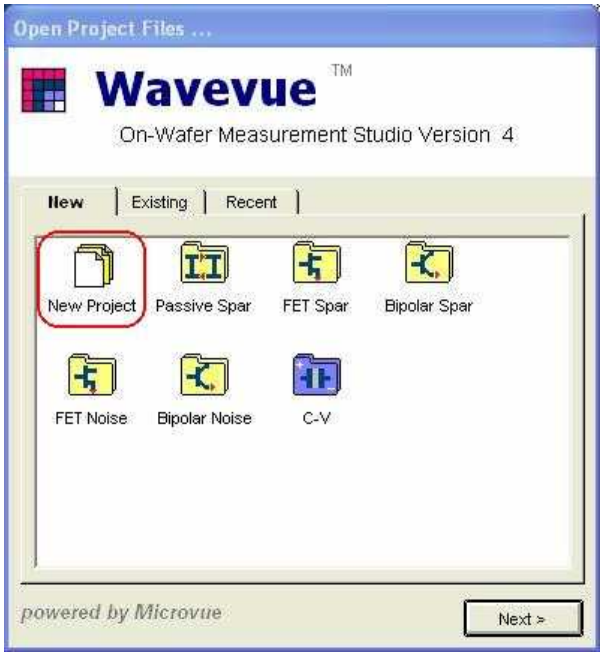

Figure 24. Open Project Window

Click the New Project icon to select it, then click *Next* to continue.

Verifying GPIB communications

NOTE

This step only applies to Instrument Editions of Wavevue. Office Editions are always in Simulation mode and don't support GPIB communications.

Wavevue includes a GPIB Scan tool to help with the task of configuring your GPIB test instruments. This tool is also good for verifying GPIB communications in general. In order to verify that your GPIB hardware and software is installed and configure properly, connect the computer to your test instruments using GPIB cables.

From the main menu, select: *Tools* > *GPIB Bus Scan...* The GPIB Scan window shown below will appear.

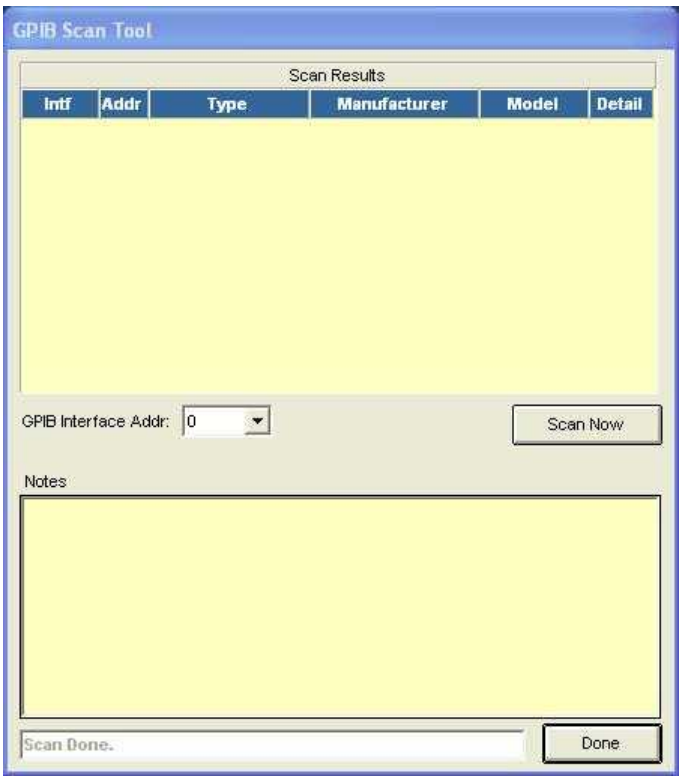

Figure 25. GPIB Scan Utility Window

Make sure that the "GPIB Interface Addr" control is set properly to match your interface card, then click *Scan Now*. After several seconds, the Scan Results grid is should be filled with information about any GPIB instruments detected. Wavevue should detect any instruments on the GPIB bus, but it can only identify those that it has drivers for, and then only those that respond to the standard GPIB "*IDN?" query. If the list of GPIB addresses detected corresponds to your suite of test instruments, you know that your GPIB setup is fine.

Managing user accounts

In order to manage user accounts, you must be logged in as System Administrator. From the main menu, select *Tools* > *System Admin Functions...* The System Administration window shown below will appear.

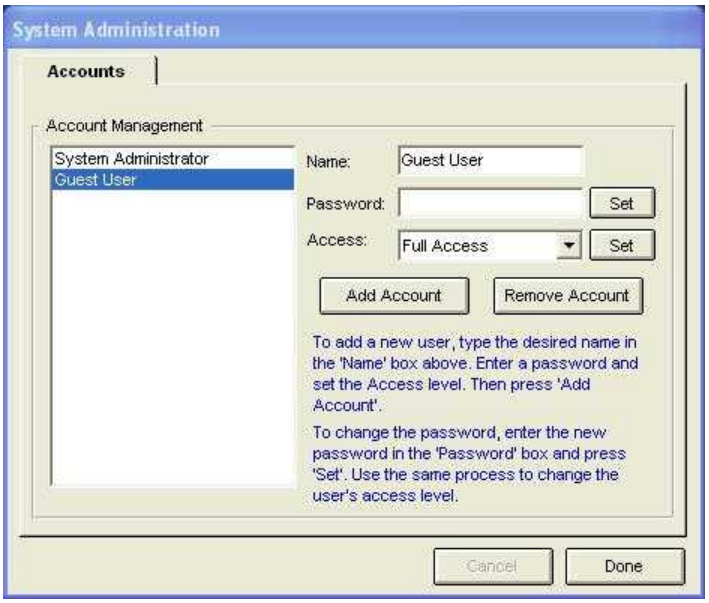

Figure 26. System Administration Utility Window

Adding users

To add a new user account:

1. Type the user name in the Name field
2. Type the default password for the new user
3. Select an access level
4. Click the Add Account button

The new username should be added to the list on the left.

NOTE

Different access levels are not yet implemented in Wavevue. The control is still implemented to allow it to be added in a future revision.

Changing passwords

The System Administrator can change any account password. To do this:

1. Select the username from the list on the left
2. Type the new password
3. Click the Set button next to the Password field

The account password will be reset.

All Wavevue users can change their own password. To do this, select the password icon from the toolbar, or select *Tools* > *Change User Password...* The password window shown below will appear.

Figure 27. Change Password Window

Type your current password in the first field, and the new password twice in the next two fields. Click OK to set the new password.

Security considerations

Wavevue stores the account names and encrypted passwords in a text file in the User Accounts directory created during installation. The encryption method is one-way, so passwords cannot easily be decrypted. But no encryption scheme is unbreakable, and the one employed by Wavevue is no exception.

NOTE

It is highly recommended that a user's Wavevue password not be the same as their Windows and other company account passwords. That way if the Wavevue password is compromised, minimal harm is done.

Exiting Wavevue

At this point, we have verified that the installation completed properly and that Wavevue is running correctly. You should now proceed to the Application Lever User's Guide for more detailed descriptions of all of the features available in Wavevue.
To exit Wavevue, click the Exit icon on the main toolbar, or select *File* > *Exit Program…* from the main menu. The Goodbye window shown below will appear.

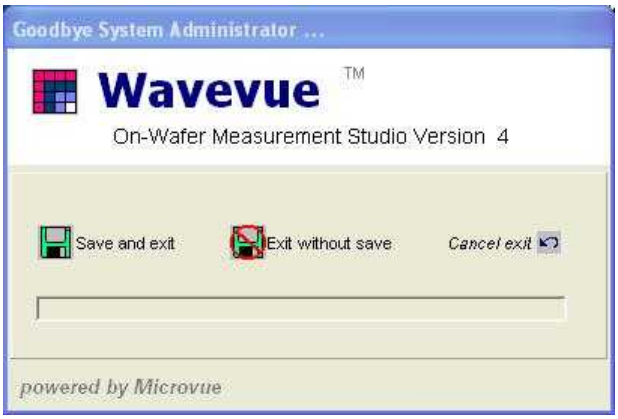

Figure 28. Exit Wavevue Confirmation Window

Since the empty project that you created isn't worth saving, click the *Exit without save* button. Wavevue will exit back to the operating system.

Troubleshooting

If you run into trouble during this initial run, check the following questions and answers first. If those don't solve your problem, please refer to the Getting Help chapter at the end of this manual for further assistance.

When I try to start Wavevue, I get a message about No License Key Detected.

There are several different possible causes of this error:

1) The license key isn't securely installed on the computer.
Wavevue checks for the license key on start-up and again on a frequent basis while running, so the key must stay attached to the computer the entire time Wavevue is running. Verify that the key is securely inserted into the USB port and that the LED is lit.

2) The USB ports on the computer aren't enabled in the BIOS.
This is fairly unusual, but occasionally the USB ports may not have been enabled by whoever configured the computer. Refer to your owner's manual to verify that the USB ports are enabled. You may also want to insert a non-Wavevue USB device and verify that it functions correctly on the selected port.

3) The USB license key driver didn't install properly during the Wavevue installation procedure.
If the key is inserted properly and the LED is lit, but you still get the message, you can try manually re-installing the driver software. First remove the license key from the USB port. Click *Start* > *Run*, then click the *Browse* button. Navigate to the Application Utilities folder in the Wavevue install directory, then select "HINSTALL.EXE". Add –i to the end of the string. The string in the Open field will typically look like:

"C:\Program Files\Microvue\Wavevue\Application Utilities\HINSTALL.EXE" –i

Click *OK* to run the utility to re-install the license key driver software. After a few seconds, it should responds with an Installation Successful window.

4) The license key is defective or broken
All license keys are verified prior to leaving the factory. In the unlikely event that one is damaged during shipment or unpacking, please refer to Chapter 6 and contact the factory for a replacement key.

When I start Wavevue Instrument Edition, I get a message about being locked into Simulation mode.

This message is generated because Wavevue failed to detect either GPIB driver software or the GPIB card hardware test failed on start-up. Verify that your computer does have a GPIB interface installed and that the driver software is installed properly. You may also want to use a non-Wavevue application such as National Instruments Test and Measurement Explorer to verify GPIB functionality independently of Wavevue.

CHAPTER

5 Upgrading Wavevue

Your support agreement for Wavevue includes unlimited free software upgrades. Wavevue is updated on a regular basis as bugs are found or new features are added.

Where to find upgrades

The latest versions of Wavevue are always available on the Microvue web site:

http://www.microvueinc.com/upgrades.htm

Upgrades fall into two categories – Complete upgrades and Patch upgrades. Complete upgrades involve uninstalling your existing version of Wavevue and performing a complete new installation. Patch upgrades simply replace the Wavevue executable file but don't affect all of the rest of the installed Wavevue files.

Installing a complete upgrade

A complete upgrade is very similar to your initial installation of Wavevue. The main difference is that you download it from the website and install it from an archive file rather than an installation CD.

Installation overview

Uninstalling your current version of Wavevue will remove all of the Wavevue System files specified in Table 4 in Chapter 3. New versions of all of these files will then be added during the installation process. All of the User files specified in Table 5 in Chapter 3 should be unaffected by the upgrade.

If you are unsure about the status of any files, it would be wise to back them up to a CD-R or another folder on the hard drive before proceeding with the upgrade installation.

Installation steps

NOTE

Remove the Wavevue software license key from your computer prior to running the installation program. Failure to do so may cause the last step of the installation to fail and Wavevue will be unable to read the software license key.

1. Download the complete upgrade file from the Microvue web site.
2. Unzip the complete upgrade file into a temporary file on the target computer.
3. Uninstall the existing version of Wavevue using *System Tools > Add/Remove Software*.
4. Run Setup.exe from the temporary file on the target computer.

A couple of status windows may pop up for a few moments informing you of the status of Windows Installer preparing to install the program. Once they have completed, the Welcome window will appear:

Figure 29. Installer Welcome Window

Click *Next* to proceed. The License Agreement window will appear next:

Figure 30. Installer License Agreement Window

You must accept the license agreement to continue the installation process. Select "I accept" and click *Next* to continue. The Customer Information window will appear:

Figure 31. Installer Customer Information Window

Enter your user name and company name in the fields and click *Next*. The Destination Folder window will appear:

Figure 32. Installer Destination Folder Window

By default, Wavevue will install to "C:\Program Files\Microvue\Wavevue". You can change this location if you like. You should install it in the same location as the previous version of Wavevue, however. Click *Next* to continue. The Ready window will appear next, summarizing all of the information entered so far:

Figure 33. Installer Ready to Install Window

Verify that all of the information display is correct and click *Install* to continue. The installer will copy all of the required files to your computer. This may take several minutes. When the process is complete, the Install Finished window will appear:

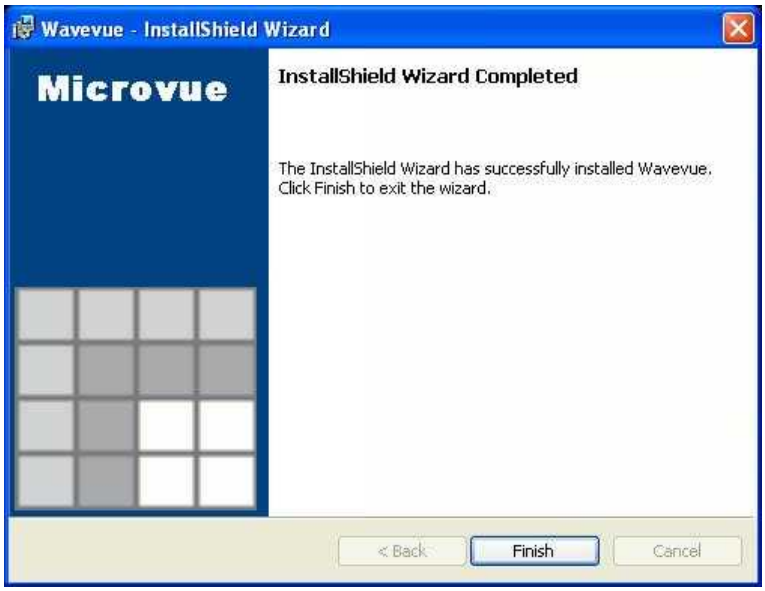

Figure 34. Installer Finished Window

Click *Finish* to continue. This window will not disappear yet, but you will see a small status window appear for a few seconds indicating that the hardware driver for the license key is being installed. When that process is complete, a confirmation window will appear:

Figure 35. HASP Key Driver Finished Dialog

Click *OK* to complete the installation process for Wavevue. This window and the previous window should both disappear. The software installation is now complete. Install your hardware key back on the computer and you are ready to run the upgraded version of Wavevue.

Installing a patch upgrade

A patch upgrade simply replaces the Wavevue executable file on your computer without affecting the rest of the Wavevue installation.

Installation overview

The only file that will be affected by a patch upgrade is the Wavevue executable program.

Installation steps

1. Download the patch upgrade file from the Microvue web site.
2. Unzip the patch upgrade file into the “Program” folder in your Wavevue installation directory structure.
3. Right click the Wavevue icon on the Desktop and change the Properties to link to the new executable file.
4. Right click the Wavevue Start menu icon and change the Properties to link to the new executable file.

Installing additional module licenses

Every installation of Wavevue Measurement Studio contains all of the available measurement modules. Use of the modules is enabled by the license codes stored in the Wavevue license key. License keys can be remotely upgraded when additional module licenses are purchased without needing to be returned to the factory.

Installation overview

No files are affected by a module license upgrade. Only the software license key is affected. Note that license upgrade programs are key-specific, however, and will only work on the specific key that they are coded to.

Installation steps

NOTE

The Wavevue license key must be installed in the computer for the license upgrade program to re-write it.

1. Copy the license upgrade program to the target computer.
2. Unzip the license upgrade file into a temporary file.
3. Run the license update program.

The license key upgrade process takes less than a second, and a confirmation window appears when the process has completed.

Verifying new licenses

Run Wavevue and check the Welcome window to make sure that the new licenses now appear in the license display as shown below:

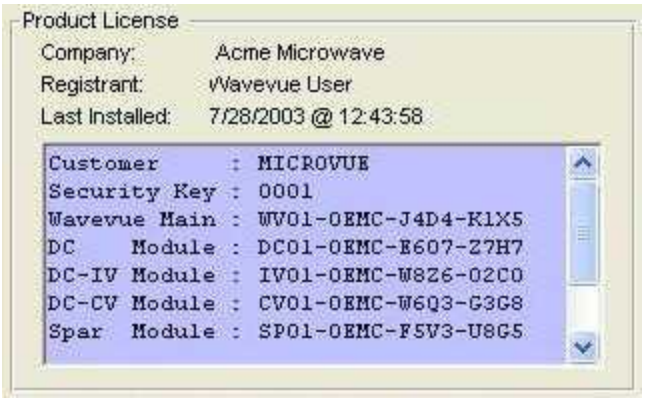

Figure 36. Welcome Window License Info Detail

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CHAPTER

6 Getting help

Where to get more information

If you purchased your Microvue product from a third-party vendor, you can contact that vendor for service and support. Otherwise you may contact Microvue directly as shown below. Requests for sales, service, and technical support information will receive a prompt response.

- Telephone: (978)-251-0456
- FAX: (978)-926-0514
- e-mail: support@microvueinc.com

NOTE

When sending e-mail for technical support, please include information about both the hardware and software, plus a detailed description of the problem, including how to reproduce it. Be sure to include all project files associated with the issue in order to expedite support.