SOFTWARE INSTALLATION MANUAL

LAP-XM®
2.5.0.0

CE N17728

Table of Contents

CHAPTER 1
GENERAL INFORMATION

This chapter provides basic information regarding the Vaisala LAP-XM®
2.5.0.0. Wind Profiler control and data acquisition software.

About This Manual

The manual assumes a thorough working knowledge of the Windows
operating system on which the Vaisala LAP-XM® 2.5.0.0 software
product.

The Windows operating systems provide many user-configurable display
and desktop options, therefore the descriptions used in this document
may appear slightly different from what appears on your screen. The
procedures nevertheless provide all the pertinent information needed to
complete a full installation for the product.

At the begining of each installation step there is a small underline
placeholder. It is highly recommended that a pencil checkmark is made
in this space after the completion of each step. This helps to ensure that
each step is completed and in the correct order.

Contents of This Manual

This manual consists of the following chapters:

- Chapter 1, General Information, provides basic information regarding
  the Vaisala LAP-XM® 2.5.0.0. Wind Profiler control and data
  acquisition software.
- Chapter 2, LAP-XM® 2.5.0.0 Software Installation, describes the
  steps required to install and configure the LAP-XM® control and data
  acquisition software for a LAP® Wind Profiler. LAP-XM® requires
  that the Windows OS has two partions. One for the operating system
  and the other for data collection.
- Chapter 3, LAP-XM® Web Interface, describes the steps required to
  install and configure the LAP-XM® web interface for controlling a
  LAP® Wind Profiler.

- Chapter 4, Monitor Installation, provides installation and configuration for the a LAP® Wind Profiler system monitor database. This proceedure is required only for systems that will use a system Monitor.

- Chapter 5, Data Display Software, provides installation and configuration for the a LAP® Wind Profiler data display software applications.

- Chapter 6, Audio Configuration, describes configuration of the audio sound source for Radio Acoustic Sounding System (RASS). This proceedure is required only for systems that will use RASS.

- Chapter 7, Service Support, provides service contact information and suggest information to be gather for Vaisala Inc. service personnel.

- Appendix A, LAP-XM® Upgrade Procedure

- Appendix B, Support Software

- Appendix C, Legacy Hardware Identification and Installation

- Appendix D, MGE UPS Configuration

Version Information

Table 1   Manual Revisions

Manual Code	Description
M211134EN-A	This manual,Software Installation Guide LAP-XM® 2.5.0.0

Related Manuals

Table 2   Related Manuals

Manual Code	Manual Name
M211132EN-A	Windows XP Installation, Wind Profiler Workstation, DELL R5400
M210303en-H	LAP-XM® Software Manual - Technical Reference
M210301en-G	Vaisala Wind Profiler LAP®-3000 - User's Guide
M210440en-B	Vaisala Wind Profiler LAP®-8000 - User's Guide
M210442en-F	Vaisala Wind Profiler LAP®-12000 - User's Guide
M210444en-F	Vaisala Wind Profiler LAP®-16000 - User's Guide

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Warranty

For certain products Vaisala normally gives a limited one year warranty, but warranty periods may vary according to the agreed upon terms of the sales contract. Please observe that any such warranty may not be valid in case of damage beyond normal wear and tear, negligent handling or installation, unauthorized modifications, or unauthorized removal or tearing of any LAP® component warranty label. Please see the applicable supply contract or conditions of sale for details of the warranty for each product.

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CHAPTER 2
LAP-XM® 2.5.0.0 SOFTWARE INSTALLATION

This chapter describes the steps required to install and configure the LAP-XM® control and data acquisition software for a LAP® Wind Profiler. LAP-XM® requires that the Windows OS has two partions. One for the operating system and the other for data collection.

Minimum System Requirements

System requirements for this product are listed in Table 3 below.

Table 3   Minimum System Requirements

Component	Minimum Requirement
Processor	Intel® Core 2: dual-core or quad-core (recommended), Pentium 4 (minimum)
Operating System (OS)	Windows XP Pro [1]
Memory	4 GB (recommended) 2 GB (minimum)
OS partition size	12 GB operating system partition [2] (minimum)
Ethernet communications	2x Gigabit Ethernet ports (minimum) required for digital IF receiver employing RVP910 2x 100 Megabit Ethernet ports (minimum) required for baseband (ISA) and PCI digital IF receiver employing PIRAQ-III
USB ports	1x USB 2.0 port (minimum) required for all configurations 2x USB 2.0 ports (minimum) required for configurations with system monitor
Accessory Drives	DVD-ROM Drive (minimum) DVD/RW (recommended) 3.5" Diskette Drive (recommended)
Video	SVGA 1024 x 768 (Minimum) SVGA 1280x1024 (Recommended)
Internet Browser	Microsoft Internet Explorer 6.x or higher [3]

1) Service Pack 3
2) Recommended HD size of 300 GB or greater.
3) LAP-XM® only supports Microsoft Internet Explorer.

For a LAP® profiler using the PIRAQ-III PCI digital IF receiver, the computer system must provide at least four contiguous unused full-length 32-bit PCI slots (with both +5.0 and +3.3 VDC present) for the signal processing boards. If the system has RASS, then an additional PCI-33 slot must also be available.

For a LAP® profiler using a baseband conversion receiver using the DSP-32C DSP, etc., the computer system must provide at least four contiguous unused full-length ISA slots for the signal processing boards. If the system has RASS,then an additional ISA slot must also be available.

LAP-XM® 2.5.0.0 Software

Note: 1.) For new system installs, refer to document *Wind Profiler Workstation, Windows XP Installation – M211132EN* before proceeding.
2.) To upgrade an existing LAP-XM system, refer to *Appendix A.*

___ a.   Insert the "LAP-XM 2.5.0.0" Installation CD into CD-ROM drive.

___ b.   From [Start | Run], browse the CD-ROM drive and double-click on the directory:
          Lapxm 2.5.0.0 Install

___ c.   Select the *setup.exe* installation program.

___ d.   Click [Open] button to accept setup program.

___ e.   Click [OK] button to start installation.

Note: The JAVA VM and .NET Framework are both required by the LAP-XM software. The LAP-XM installer automatically detects if they are missing and starts installing them at this point. If they are already on the system the installer will jump to step g.

___ f.   Click [Install] button to install *Java SE 6 1.6.0_20* and *Microsoft .NET Framework 2.0 SP2.*

___ g.   Click [Next>] button at the *Welcome to the InstallShield Wizard for LAP-XM 2.5.0.0* dialog box.

___ h.   Select the *I accept the terms in the license agreement* radio button.

___ i.   Click [Next >] button.

___ j.   Click [Install] button.

___ k.   Click [Finish] button to complete installation.

___ l.   Click [Yes] button to restart the Windows XP operating system.

___ m.   Log into the workstation *lapxmuser* account – password *lapxm.*

LAP-XM® 2.5.0.0 Software Reference and User Manuals

___ a.   From [Start | Run], browse the CD-ROM drive and double-click on the directory:
          LAP 2.5.0.0 Manuals

___ b.   Highlight the *LAP_2500_Manuals_Install.EXE* installation program.

___ c.   Click [Open] button to accept setup program.

___ d.   Click [OK] button to start installation.

___ e.   Click [Next>] button at the *LAP-XM 2.5.0.0 Manuals Installation* page.

___ f.   Click [Next>] button to *Start Installation*.

___ g.   Click [Next>] button to launch Adobe Reader installation program.

Note: Click [Skip] button for systems that already have Adobe Reader installed. The installer will jump to step k.

___ h.   Click [Next>] button at the *Destination Folder* dialog.

___ i.   Click [Install] button at the *Ready to Install the Program* dialog.

___ j.   Click [Finish] button at the *Adobe Reader 9.1 Setup* dialog.

Note: If a restart dialog box appears, click the [No] button.

___ k.   Click [Finish] button at the *Vaisala LAP 2.5.0.0 Manuals* dialog.

___ l.   Go to [Start | Programs | Adobe Reader 9]

___ m.   Click [Accept] button.

___ n.   Close Adobe Reader application.

Windows Firewall Settings

___ a.   Open Windows Firewall, [Start | Settings | Control Panel | Windows Firewall]

___ b.   Select the *Exceptions* tab.

___ c.   Click [Add Program...] button.

___ d.   Click [Browse...] button and go to ther folder location:
     C:\Program Files\Crada\Lapxm\Bin

___ e.   Highlight the *Lapxm_main.exe* program.

___ f.   Click [Open] button on the *Browse* window.

___ g.   Click [OK] button on the *Add a program* window.

___ h.   Click [OK] buttton on the *Windows Firewall* window.

LAP-XM® Configuration Files

___ a.   Open Windows Explorer, [Start | Programs | Accessories | Windows Explorer]

___ b.   Insert the Configuration File Diskette into drive A:

___ c.   From drive A: copy the *.hdw file into
     C:\Program Files\Crada\LapXM\Config

___ d.   From drive A: copy the *.site file into
              C:\Program Files\Crada\LapXM\Config

___ e.   From drive A: copy the Lapxm_BaseModules.cfg file into
              C:\Program Files\Crada\LapXM\Config

___ f.   From drive A: copy all *.tpl file(s) into
              C:\Program Files\Crada\LapXM\Config\Templates

___ g.   Close Windows Explorer.

Important notes about configuration files created for versions of LAP-XM V2.4.0.0 and later.

The Hardware files (._dw and .hdw file name extension) made for versions of LAP-XM previous to 2.4.0.0 may not be compatible with LAP-XM 2.5.0.0. These files contain information specific to the individual wind profiler and profiler safety limit values that should not be changed by the user. Before the LAP-XM upgrade is begun, the hardware files from the previous version should be sent to wp.support@vaisala.com for an update to the LAP-XM 2.5.0.0 configuration. Install the LAP-XM 2.5.0.0 compatible hardware files in the C:\Program Files\Crada\Lapxm\Config directory. There can be only one copy of each of the "._dw" and ".hdw" file name extensions in this directory. These files must be present in the C:\Program Files\Crada\Lapxm\Config directory for LAP-XM to operate.

The Configuration files (.tpl and .cfg file name extension) used made for versions of LAP-XM previous to 2.4.0.0 not be compatible to LAP-XM 2.5.0.0 without modification. The user should refer to the chapter 3 of the LAP-XM Software Reference manual (Vaisala part number PN 80018301 rev L) and the example files "DwellMode Module Examples.txt"and "Process Module Examples.txt" in the C:\Program Files\Crada\Lapxm\Config\Examples directory for information about the format of the configuration files. Use WordPad or a similar application to modify any older configuration files. Older and modified configuration files are not compatible with the LAP-XM configuration file editor. A template file is provided with the LAP-XM distribution that is compatible with the LAP-XM configuration file editor.

The BaseModules file from previous versions of LAP-XM is compatible with LAP-XM 2.5.0.0. If the previous version of LAP-XM did not use a "BaseModules.cfg", then use the file provided with the LAP-XM distribution. The file must be placed in the C:\Program Files\Crada\Lapxm\Config directory. This file must be present in the C:\Program Files\Crada\Lapxm\Config directory for LAP-XM to operate.

The Site file (.site file name extension) from previous versions of LAP-XM is compatible with LAP-XM 2.5.0.0. The file must be placed in the C:\Program Files\Crada\Lapxm\Config directory. There can be only one copy of the ".site" file name extension in this directory. This file must be present in the C:\Program Files\Crada\Lapxm\Config directory for LAP-XM to operate.

CHAPTER 3
LAP-XM® WEB INTERFACE CONFIGURATION

This chapter describes the steps required to install and configure the LAP-XM® web interface for controlling a LAP® Wind Profiler.

Microsoft Peer Web Services Install

___ a. Insert the Windows XP Installation CD into the CD-ROM drive.

Note: Close the Windows XP Install dialog box if it appears after inserting the CD.

___ b. Go to [Start | Setting | Control Panel | Add or Remove Programs]

___ c. Click on *Add/Remove Windows Components* option in the left hand column.

___ d. In the components window, de-select the following options:
> *MSN Explorer*
> *Outlook Express*
> *Windows Media Player*
> *Windows Messenger*

___ e. In the components window, check and select the following option:
> *Internet Information Services (IIS).*

___ f. Click the [Details…] button.

___ g. Select the *File Transfer Protocol (FTP) service* option.
.
___ h. De-select the *SMTP Service* option.

___ i. Ensure the *World Wide Web Service* option is selected.

___ j. Click [OK] button.

___ k. Click [Next>] button.

Note: If requested, Browse to *E:\I386* to locate *Windows XP Professional* CD.

___ l. Click [Finish] button after IIS installation is complete.

___ m. Close the *Add/Remove Programs* window.

Microsoft Peer Web Services Directories and Access Permissions

___ a. Go to [Start | Settings | Control Panel | Administrative Tools | Internet Information Sevices]

___ b. In the left panel, Click on the [+] before the *<computer name> (local computer)* listed underneath the *Internet Information Service* entry.

___ c. Click on the [+] before the *Web Sites* folder.

___ d. Highlight *Default Web Site* entry.

___ e. Choose from the menu options [Action | Properties]

___ f. Select the *Home Directory* tab.

___ g. Select *Low (IIS Process)* at the *Application Protection* dropdown selection box.

___ h. Select *Script and Executables* at the *Execution Permissions* dropdown selection box.

___ i. Click the [Browse…] button to change the *Local Path*.

___ j. Choose the following path: *C:\Program Files\Crada\LapXM\WebServer*.

___ k. Click [OK] button.

___ l. Select *Documents* tab.

___ m. Remove all documents except *Default.htm*.

___ n. Click [OK] button to close the "Default Web Site Properties" dialog box.

Note: If an Inheritance Override dialog box appears, click [OK] to proceed.

___ o. Click on the [+] before the entry *Default Web Site* .

___ p. Highlight *Scripts* entry.

___ q. Choose from the menu options [Action | Properties]

___ r. Ensure that the *Read* checkbox is selected.

___ s. Select the *Directory Security* tab

___ t. Click [Edit] button in *Anonymous access and authentication control*.

___ u. Click [Browse] button in *Anonymous access*.

___ v. Click the [Advanced] button on the *Select User* dialog box

___ w. Click on the [Find Now] button.

___ x. Highlight the *Administrator* account and press the [OK] button.

___ y. Click the [OK] button to close the *Select User* dialog box.

___ z. Deselect the checkbox for *Allow IIS to control password*.

___ aa. Enter the Administrators password - typically *lapxm*.

___ ab. Click [OK] button on the *Authentication Methods* dialog box.

___ ac.   Re-enter the Administrative password and click the [OK] button on the *Confirm Password* dialog.

___ ad.   Click [OK] button on the *Script Properties* dialog box.

___ ae.   Click on the [+] before the *FTP Sites* folder.

___ af.   Highlight *Default FTP Site*

___ ag.   Choose the menu option [Action | Properties]

___ ah.   Select the *Home Directory* tab.

___ ai.   Click [Browse…] button to change the *Local Path*.

___ aj.   Choose the following path : *D:\LapxmData*.

___ ak.   Click [OK] button at the *Browse For Folder* dialog box.

___ al.   Ensure that the FTP Site Directory attributes are set as follows:
    [x] *Read*   - Checked
    [   ] *Write*   - Unchecked
    [x] *Log Visits*   - Checked

___ am. Click [OK] button at the *Default FTP Site Properties* dialog box.

___ an.   Highlight *Default FTP Site*.

___ ao.   Choose the menu option [Action | New | Virtual Directory…]

___ ap.   Click [Next>] button

___ aq.   Type *CRADA* in the *Alias* text field.

___ ar.   Click [Next>] button

___ as.   Click [Browse…] button to choose the path for the new virtual directory.

___ at.   Choose the following path: *C:\Program Files\Crada*.

___ au.   Click [OK] button.

___ av.   Click [Next>] button.

___ aw. Ensure the [x] *Read* checkbox is selected and the [   ] *Write* checkbox is deselected.

___ ax.   Click [Next>] button.

___ ay.   Click [Finish] button.

___ az.   Close the *Internet Service Manager* window.

Internet Explorer Configuration

Note: Steps **a** through **k** only apply only to the first time Internet Explorer is used.

___ a.   Open *Internet Explorer*, [Start | Programs | Internet Explorer]
    New Connection Wizard will appear the first time Internet Explorer is launched.

___ b.   Select the radio button for *Run the new Connection Wizard*...

___ c.   Click the [OK] button.

___ d.   Click the [Next...] button.

___ e.   Select the radio button for *Connect to the Internet*.

___ f.   Click the [Next>] button.

___ g.   Select the radio button for *Set up my connection manually*.

___ h.   Click the [Next>] button.

___ i.   Select the radio button for *Connect using a broadband connection that is always on*.

___ j.   Click the [Next>] button.

___ k.   Click [Finish] button.

___ l.   Go to [Start | Programs | Internet Explorer]

___ m.   In the Address text area type: http://<the computer's name>, the press [Enter] key on keyboard.

Note: The LAP-XM 2.5.0.0. web interface should appear. If it does not, double check the steps listed in the preceeding section, *Microsoft Peer Web Services Directories and Access Permissions*.

___ n.   Choose from the menu options [Tools | Internet Options]

___ o.   Under the [General] tab in the *Home Page* area click on the [Use Current] Button.

___ p.   Under *Temporary Internet files* press the [Setting…] button.

___ q.   Select the radio button for *Every visit to the Page*.

___ r.   Click [OK] button on *settings* dialog.

___ s.   Select the [Advanced] tab.

___ t.   Deselect the *Enable folder view for FTP sites* option under *Settings/Browsing*.

___ u.   Click [OK] on the *Internet Options* dialog.

___ v.   Close *Internet Explorer*.

CHAPTER 4

MONITOR INSTALLATION AND CONFIGURATION

This chapter provides installation and configuration for the a LAP® Wind Profiler system monitor database. This proceedure is required only for systems that will use a system Monitor.

MSDE and LAP® Monitor Database 2.1 Install

___ a.   Insert the *LAP-XM V2.5.0.0* Installation CD into CD-ROM drive.

___ b.   From [Start | Run], browse the CD-ROM drive and double-click on the directory:
     \LAP Monitor Database 2.1

___ c.   Select the *MonitorDBSetup.EXE* installation program.

___ d.   Click the [Open] button.

___ e.   Click [OK] button to launch the setup application.

___ f   Click [Next >] button to initiate the installation.

___ g.   Ensure that both the *MSDE* and *Monitor Database* check boxes are selected.

___ h.   Click [Next] button.

___ i.   Click [Next] button to start the *Microsoft SQL Server Desktop Engine* installation.

___ j.   Click [Finish] button to complete the installation.

SLIK ODBC View Install

___ a.   Insert the *LAP-XM V2.5.0.0* Installation CD into CD-ROM drive.

___ b.   From [Start | Run], browse the CD-ROM drive and double-click on the directory:
     x:\ SLIK ODBC View 3.1

___ c.   Select the *SLIK_Setup.bat* installation program.

___ d.   Click [Open] button to accept the setup file.

___ e.   Click [OK] button to launch the setup application.

___ f.   Click [Next>] button to initiate SLIK installation.

___ g.   Select the *I accept the terms in the license agreement* option.

___ h.   Click [Next>] button to continue.

___ i.   Click [Next>] button to accept the default *Destination Folder*.

___ j.   Click [Install] button to continue.

___ k.   Deselect *Launch the program* and *Show the read me file*.

___ l.   Click [Finish] button to continue.

___ m.   Wait for *Press any key to continue…* prompt to appear then press the [Enter] key to close the Command Prompt window.

Note: A text file containing typically used SQL commands can be found at:
            C:\Program Files\SLIK Software\ODBCView\ SQL Commands.txt

Data Source Connection Configuration

___ a.   Start the ODBC View program.

___ b.   [Start | Programs | SLIK Software | ODBC View]

___ c.   Click [DataSource…] button.

___ d.   Select the *Machine Data Source* tab in the popup dialog box.

___ e.   Click [New…] button.

___ f.   Select the radio button labeled: *System Data Source (Applies to this machine only)* .

___ g.   Click [Next>] button.

___ h.   Select the *SQL Server* at the bottom of the scrolling text window.

___ i.   Click [Next>] button.

___ j.   Click [Finish] button.

___ k.   In the *Name* field enter the text *Monitor Database*.

___ l.   In the *Server* text field enter the network <computer name> of the system.

___ m.   Click [Next>] button.

___ n.   Select the radio button labeled: *With SQL Server authentication using a login ID and password entered by the user*.

___ o.   In the *Login ID* field enter the text *LapxmSA*

___ p.   In the *Password* field enter the text *j1f2m3a4m5j6j7a8s9o10n11d12*.

___ q.   Click [Next>] button.

___ r.   Select the checkbox for *Change the default database to:*

___ s.   Ensure that the *Vaisala_Monitor* is selected.

___ t.   Click [Next>] button.

___ u.   Click [Finish] button. (Make no changes in this dialog box).

___ v.   Click [Test Data Source…]

Note: If the connection is working correctly a dialog box will pop up stating
            "TESTS COMPLETED SUCCESSFULLY".

___ w.   Click [OK] button to cancel information box.

___ x.   Click [OK] button.

___ y.   Click [OK] button

___ z.   Enter the *LapxmSA* password to open a SLIK ODBC session with the Monitor Database.

___ aa.   Click [OK] button.

___ ab.   Exit the ODBC View Program.

Third Party Device Drivers

Third party device drivers are required for the LAP-XM® monitor software to communicate with the
hardware devices to be monitored. Two types of monitor communications exist for wind profiler
systems. The earlier version uses RS485 and the later version uses DLP232. Drivers for the
DLP232 are provided with LAP-XM® 2.5.0.0 installation. The RS485 drivers are provided by the
vendor of the USB to COM converter. These drivers must be installed the when the hardware is
connected initially to the radar processor.

Drivers required include

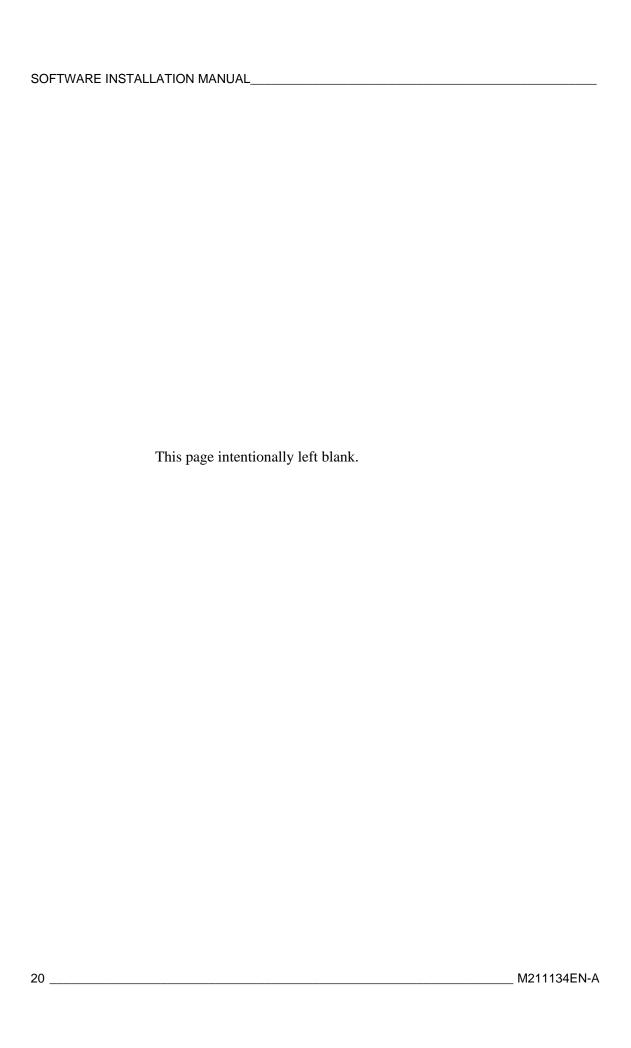   DLP232 USB Serial Converter:
        Use the Windows manual driver install method to provide the specific location of the
        driver. The driver is located at:
            C:\Program Files\Crada\Lapxm\Bin\drivers\DLP232

    RS485 USB-COMi-SI-M:
        Use the USB to Serial Driver and Utility provide on the vendor supplied CD to install the
        RS485 driver.

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CHAPTER 5
DATA DISPLAY SOFTWARE

This chapter provides installation and configuration for the a LAP® Wind Profiler data display software applications.

LAPMom Install

___ a. Insert the LAP-XM V2.5.0.0 Installation CD into CD-ROM drive.

___ b. From [Start | Run], browse the CD-ROM drive and double-click on the directory:
    x:\ LAPMom 1.0.8

___ c. Select the *LAPMom Setup.exe* installation program.

___ d. Click [Open] button to accept the setup file.

___ e. Click [OK] button to launch the setup application.

___ f. Click [Next>] button to initiate LAPMom installation.

___ g. Ensure that the Anyone who uses this computer radio button is selected.

___ h. Click [Next>] button to continue.

___ i. Click [Next>] button to accept the Destination Folder.

___ j. Click [Next>] button to accept the application install.

___ k. Click [Finish] button to exit installation.

GraphXM Install (Optional)

___ a. Insert the *GraphXM Installation* CD into CD-ROM drive.

___ b. From [Start | Run], browse the CD-ROM drive and select the root directory.

___ c. Select the *GraphXM Setup* installation program.

___ d. Click [Open] button to accept *Setup*.

___ e. Click [OK] button to start installation.

___ f. Click [Next>] button to start the installation program.

___ g. Insure that the *Anyone who uses this computer* radio button is selected.

___ h. Click [Next>] button to accept *User Information*.

___ i.   Click [Next>] button to accept the *Destination Folder*.

___ j.   Click [Next>] button to accept the application install.

Note: The GraphXM installation may require a system restart at this point.
           If not, proceed to step o.

___ k.   Click [Yes] to proceed with restart.

___ l.   Log in as *Lapxmuser*, GraphXM installation program will restart automatically.

___ m.   Click [Next>] button at Welcome dialog box.

___ n.   Click [Next>] button to resume GraphXM installation.

___ o.   Click [Finish] button to complete installation.

___ p.   Remove GraphXM installation CD-ROM.

CHAPTER 6

AUDIO CONFIGURATION AND SHORTCUTS

This chapter describes configuration of the audio sound source for Radio Acoustic Sounding System (RASS). This proceedure is required only for systems that will use RASS.

Windows Scheme Sounds Configuration

Note: For systems that do not have integrated sound interface, a SoundBlaster audio card must be installed before proceeding. Install the SoundBlaster software according to the instructions supplied with the audio card.

___ a. Go to [Start | Settings | Control Panel | Sounds and Audio Devices]

___ b. Select the *Sounds* tab.

___ c. Click the *Sound schemes* drop-down menu and select *No Sounds.*

Note: If Windows asks Do you want to save previous Scheme? click the [No] button.

___ d. Click [OK] button.

___ e. Go to [Start | Programs | Accessories | Entertainment | Volume Control]

___ f. Ensure that a checkmark exists before the menu item [Options | Advanced Controls]
This will expose the [Advanced] options button for the various volume controls.

___ g. Click the [Advanced] button at the bottom of the *Master Volume Playback* control column.

Note: The [Advanced] option for this column is not always available. If it does not appear, skip to step I.

___ h. If a checkbox labeled *1 Spatial* or *SPDIF* exists, ensure that checkbox for each one is deselected.

___ i. Click [Close] button.

___ j. Exit the Playback Control utility.

Create Support Software Application Shortcuts

Create Desktop and Taskbar Quick Launch shortcuts for the following software applications. See Windows operating system help for details on creating application shortcuts.

___ a.   LAPMom – found at *C:\Program Files\LAPMom\LAPMom.exe*

___ b.   GraphXM – found at *C:\Program Files\GraphXM\GraphXM.exe* (If installed).

___ c.   Services - Copy from [Start | Settings | Control Panel | Administrative Tools]

___ d.   SLIK ODBC View 3.1 found at *C:\Program Files\SLIK Software\ODBCView\ ODBCView.exe*

CHAPTER 7
SERVICE SUPPORT

This chapter provides service contact information and suggest information to be gather for Vaisala Inc. service personnel.

Gathering Issue Details

When troubleshooting the product, write a problem report consisting of the following issues:

- What failed? (What does not function and what does function.)
- Where did it fail? (location / environment)
- When did it fail? (date, time / periodically / randomly)
- How many items failed? (only one defect / several failures in one unit)
- What was connected to the product and to which connectors?
- Input power source type, voltage and list of other items (lighting, heaters, motors etc.) that were connected to the same power output.
- What was done when the failure was noticed?

Contact Information

For technical questions, contact the Vaisala technical support:

E-mail   us-technicalsupport@vaisala.com
Toll free (US)
Wind Profiler Service: +1 877 824 7252 opt 2

If the product needs repair, please follow the instructions below to speed up the process and to avoid extra costs to you.

1. Read the warranty information.
2. Gather detailed information regarding the failure or incident.
3. Contact Vaisala service support via e-mail or fax .
4. Proceed as instructed by Vaisala technical support.

Request for RMA (Return Material Authorization) and shipping instructions for any equipment that is to be returned for servicing.

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APPENDIX A
LAP-XM® UPGRADE PROCEDURE

Uninstall Current Version of LAP-XM®

___ a. Using the LAP-XM Console, stop data aquisition.

___ b. Make a backup copy of existing configuration file directory located at:
        C:\Program Files\Crada\Lapxm\Config
        to a new directory location – e.g. *C:\temp\Config.*

___ c. Open [Start | Settings | Control Panel | Administrative Tools | Services]

___ d. Highlight and right-click on the *Lapxm_Main* entry and select *Stop* from the menu.

___ e. Highlight and right-click on the *World Wide Web Publishing* entry and select *Stop* from the menu.

If LAP Monitor is being used.

___ f. Highlight and right-click on the *MSSQLSERVER* entry and select *Stop* from the menu.

Note: A warning dialog box may appear stating that other services will be stopped. Click [Yes] to proceed.

If GPS time synchronization is being used.

___ g. Highlight and right-click on the *Lapxm_GPS* entry and select *Stop* from the menu.

If software watchdog is being used.

___ h. Highlight and right-click on the *Lapxm_Watchdog_Software* entry and select *Stop* from the menu.

___ i. Close *Services* utility window.

___ j. Go to [Start | Setting | Control Panel]

___ k. Double-click on *Add/Remove Programs* icon.

___ l. Highlight the *LAP-XM 2.x.x.x* entry and press the *Change/Remove* button.

Note: If multiple LAP-XM entries exist, select the latest major revision number first. Remove all instances of LAP-XM shown.

___ m. Complete all steps to remove LAP-XM from the computer.

Note: If the requested to restart, select [Yes]. Once the system has restarted and you have logged back in as *lapxmuser*, return to *the Add/Remove* utility.

___ n. Highlight *the LAP-XM 2.x.x.x Manuals* entry and press the *Change/Remove* button.

Note: If multiple LAP-XM entries exist, select the latest major revision number first. Remove all instances of LAP-XM Manuals shown.

___ o. Complete all step to remove LAP-XM Manuals from the computer.

___ p. Close *Add/Remove Programs* utility window.

___ q. Close *Control Panel*.

___ r. Open Windows Explorer, [Start | Programs | Accessories | Windows Explorer]

___ s. Locate and highlight the directory *C:\program files\crada*.

___ t. Choose the menu options [File | Delete] to remove the old LAP-XM installation directory.

Note: If an Access denied warning appears, delete all sub-directories in the tree individually.

___ u. Close Windows Explorer.

LAP-XM® 2.5.0.0 Software

Note: 1.) For new system installs, refer to document *Wind Profiler Workstation, Windows XP Installation – M211132EN* before proceeding.
2.) To upgrade an existing LAP-XM system, refer to *Appendix A.*

___ a. Insert the "LAP-XM 2.5.0.0" Installation CD into CD-ROM drive.

___ b. From [Start | Run], browse the CD-ROM drive and double-click on the directory:
        \Lapxm 2.5.0.0 Install

___ c. Select the *setup.exe* installation program.

___ d. Click [Open] button to accept setup program.

___ e. Click [OK] button to start installation.

Note: The JAVA VM and .NET Framework are both required by the LAP-XM software. The LAP-XM installer automatically detects if they are missing and starts installing them at this point. If they are already on the system the installer will jump to step g.

___ f. Click [Install] button to install *Java SE 6 1.6.0_20* and *Microsoft .NET Framework 2.0 SP2*.

___ g. Click [Next>] button at the *Welcome to the InstallShield Wizard for LAP-XM 2.5.0.0* dialog box.

___ h. Select the *I accept the terms in the license agreement* radio button.

___ i. Click [Next >] button.

___ j. Click [Install] button.

___ k. Click [Finish] button to complete installation.

___ l. Click [Yes] button to restart the Windows XP operating system.

___ m. Log into the workstation *lapxmuser* account – password *lapxm*.

LAP-XM® 2.5.0.0 Software Reference and User Manuals

___ a.   From [Start | Run], browse the CD-ROM drive and double-click on the directory:
   \LAP 2.5.0.0 Manuals

___ b.   Highlight the *LAP_2500_Manuals_Install.EXE* installation program.

___ c.   Click [Open] button to accept setup program.

___ d.   Click [OK] button to start installation.

___ e.   Click [Next>] button at the *LAP-XM 2.5.0.0 Manuals Installation* page.

___ f.   Click [Next>] button to *Start Installation*.

___ g.   Click [Next>] button to launch Adobe Reader installation program.

Note: Click [Skip] button for systems that already have Adobe Reader installed. The installer will jump to step k.

___ h.   Click [Next>] button at the *Destination Folder* dialog.

___ i.   Click [Install] button at the *Ready to Install the Program* dialog.

___ j.   Click [Finish] button at the *Adobe Reader 9.1 Setup* dialog.

Note: If a restart dialog box appears, click the [No] button.

___ k.   Click [Finish] button at the *Vaisala LAP 2.5.0.0 Manuals* dialog.

___ l.   Go to [Start | Programs | Adobe Reader 9]

___ m.   Click [Accept] button.

___ n.   Close Adobe Reader application.

Note: For upgrades that include RVP910 MII replacements the following procedures must also be accomplished.

Windows Firewall Settings

___ a.   Open Windows Firewall, [Start | Settings | Control Panel | Windows Firewall]

___ b.   Select the *Exceptions* tab.

___ c.   Click [Add Program...] button.

___ d.   Click [Browse...] button and go to ther folder location:
   C:\Program Files\Crada\Lapxm\Bin

___ e.   Highlight the *Lapxm_main.exe* program.

___ f.   Click [Open] button on the *Browse* window.

___ g.   Click [OK] button on the *Add a program* window.

___ h.   Click [OK] buttton on the *Windows Firewall* window.

Create Static IP Address

   ___ a. Open Network Connections
       [Start | Settings | Network Connections | Local Area Connection 2]

   ___ b. Highlight *Internet Protocol (TCP/IP)* from *This connection uses the following items:* list.

   ___ c. Press the [properties] button.

   ___ d. Select the *Use the following IP address* radio button.

   ___ e. Enter *10.0.1.12* into the *IP Address* entry field.

   ___ f. Enter 255.*255.255.0* into the *Subnet mask:* entry field.

   ___ g. Press the [OK] button on the *Internet Protocol (TCP/IP) properties* window.

   ___ h. Press the [Close] button on the *Local Area Connection 2 Status* window.

APPENDIX B
SUPPORT SOFTWARE

Simple Network Time Protocol Server (Optional)

This installation is optional and is intended to be used on systems that include the GPS option. Adding SNTP allows computers connected to this machine to synchronize their clocks, thus maintaining a stable time reference for a local area network.

___ a.   Insert the *LAP-XM 2.5.0.0* Installation CD into CD-ROM drive.

___ b.   From [Start | Run], browse the CD-ROM drive and select the directory:
      x: \ NetTime

___ c.   Select the *NetTime-2b7.exe* installation program.

___ d.   Click [Open] button.

___ e.   Click [OK] button.

___ f.   Click [Yes] button to start installation.

___ g.   Click [Next>] button.

___ h.   Click [Next>] button to accept the default destination directory.

___ i.   Click [Next>] button to accept adding NetTime to the start menu folder.

___ j.   Click [Install] button to start installing the software.

___ k.   Click [Install Service] button.

___ l.   Click [Configure] to configure NetTime NTP server.

___ m.   In the top entry under *Host name or IP Address* enter the IP address of this computer.

___ n.   In the next column under *Protocol"* select *"RFC868 (TCP)*. Port 37 is the correct default.

___ o.   Select the *Allow other computers to sync to this computer* check box.

___ p.   Select the *Never warn* check box.

___ q.   Click [OK] button.

___ r.   Click [Finish] button.

LAP-XM® GPS Service Configuration

___ a.   Open [Start | Settings | Control Panel | Administrative Tools | Services]

___ b.   Highlight and right-click on the *Lapxm_GPS* entry.

___ c.   Choose Properties.

___ d.   At the General tab, Startup type: Select: Automatic

___ e.   Click [OK] button.

___ f.   Choose from the menu options [Action | Start]

___ g.   Exit the Services utility.

LAP-XM® Manage Disk Space Service Configuration

___ a.   Open [Start | Settings | Control Panel | Administrative Tools | Services]

___ b.   Highlight and right-click on the *Lapxm_ManageDisk* entry.

___ c.   Choose Properties.

___ d.   At the General tab, Startup type: Select: Automatic

___ f.   Choose from the menu options [Action | Start]

___ g.   Exit the Services utility.

APPENDIX C
LEGACY HARDWARE IDENTIFICATION AND INSTALLATION

PIRAQ III Digital Processor Board Type Identification

The digital IF PCI board can be identified by the single type SMA RF connector on the mounting bracket. The serial number is normally on the PC board near the mounting bracket. Write down this serial number value. Ignore the "PIRAQ III Rev x" message silk screened on the board. It does not correspond to the Vaisala version.

If the digital IF board is marked with a Vaisala serial number less than 11500, then this is version – (dash).

If the digital IF board is marked with a Vaisala serial number between 11500 and 12100, then this is version A.

If the digital IF board is marked with a Vaisala serial number greater than 12100, then this is version B or later.

For a LAP® profiler using a digital IF conversion receiver, there must be at least four contiguous unused full-length 32-bit PCI slots (with both +5.0 and +3.3 VDC present) for the signal processing boards. If the system has RASS, then a PCI-33 slot must also be available.

Bassband RASS Source Card Identification

If the radar processor uses the baseband receiver with ISA DSP-32C and RASS, then one must determine the version of the RASS source board in the radar processor.

If the RASS source output connector is a 15-pin type D (DA-15S), then it is an "old" type source. Check the RASS signal cable leading from the radar processor to the audio amplifier to confirm this.

If the RASS source output connector is a RCA phono jack, then it is a "new" type source. Check the RASS signal cable leading from the radar processor to the audio amplifier to confirm this.

DWD LAP®-16000 Pulse Shaper Hardware

___ a.   Insert the USB cable coming from the Pulse Shaper Unit into the Advantech 4000 computer. Windows will automatically detect the Pulse Shaper hardware.

___ b.   When the *Found New Hardware Wizard* dialog window select "*No, not this time*" radio button.

___ c.   Click [Next>] button.

___ d.   Choose *Install from a list or specific location (Advanced)* radio button.

___ e.   Click [Next>] button.

___ f.   Select *Don't search. I will choose the driver to install.*

___ g.   Click [Next>] button.

___ h.   Select *Show All Devices* in the *Common hardware types:* window.

___ i.   Click [Next>] button. It may take a few minutes for the next dialog to appear.

___ j.   Click [Have Disk…] button.

___ k.   Browse to the file *c:\program files\crada\lapxm\bin\Lapxm USB PulseShaper.inf*.

___ l.   Click [Open] button.

___ m.   Click [OK] button

___ n.   Highlight the *Lapxm USB PulseShaper – EzLoader* entry.

___ o.   Click [Next>] button

___ p.   Click [Continue Anyway] button at the *Hardware Installation* dialog.

___ q.   Click [Finish] button

APPENDIX D
MGE UPS CONFIGURATION

Simple Network Management Protocol (SNMP)

Insert the Windows XP System CD into the CD-ROM drive.

Note: If Windows installation dialog box appears, close it before proceeding.

___ a.   From [Start | Settings] click on *Control Panel*.

___ b.   Double-click the *Add/Remove Programs* icon.

___ c.   On the left side of the window, click *Add/Remove Windows Components*.

___ d.   When the dialog box appears, select *Management and Monitoring Tools*.

___ e.   Click the [Details] button.

___ f.   Ensure that *Simple Network Management Protocol* is selected.

___ g.   Click [OK] button.

___ h.   Click [Next>] button.

___ i.   If asked to locate a file, click [OK] then [Browse] and go to the *E:\i386* directory on the Windows XP
            CD.

___ j.   Click [Finish] button.

___ k.   Close *Add/Remove Programs*.

___ l.   Close the *Control Panel*.

MGE UPS and SNMP IP Address Configuration

The IP addresses for this example are as follows:

10.0.2.1	Radar # Vaisala radar processor
10.0.2.4	Comm # Communications processor (If part of delivery)
10.0.2.5	UPS # SNMP adapter in the MGE UPS
10.0.2.6	Printer # Printer (If part of delivery)
10.0.2.7	Config # Temporary IP number for configuration PC

1. Disable the 'cold-start' option in the UPS main chassis (before the SNMP card is installed).
   1.1 Connect a DB9-M to the UPS serial port.
   1.2 Connect the other end (DB9-F) to a Windows PC serial port.
   1.3 Start the UPS driver program (usually named UPSDrv32.exe).

1.4 Select the tab labeled "On/Off condition".
1.5 De-select the "Cold start" option, then click the "Save" button.
1.6 Click the "Quit" button.
1.7 Disconnect the serial cable from the UPS and Windows PC.

2. Verify that the radar computer has an Internet Protocol (IP) address configured for the Ethernet connection.

3. Before connecting the Ethernet connection on the UPS SNMP card, ping the radar computer, UPS, laptop (administration computer), and gateway IP addresses. Only the radar computer and the gateway should respond to pings. If the proposed IP address for the UPS SNMP card is already in use, another address must be allocated.

4. Once the IP address for the UPS SNMP card is verified as available for use, verify the configuration of the UPS SNMP card.
    4.0 Plug the UPS SNMP card into the UPS main chassis. Note that it is designed for "hot" insertion.
    4.1 Connect the serial cable that is provided with the UPS SNMP card.
    4.1.1 The RJ-45 connector goes into the RJ-45 jack in the center of the UPS SNMP card.
    4.1.2 The DB9-F connector goes to the Windows PC serial port.
    4.2 Run the "HyperTerm" program on the Windows PC to connect to the UPS SNMP card.
        [Start | Programs | Accessories | Communications | HyperTerminal]
    4.2.1 The serial parameters are 9600 bits per second, 8 data bits, 1 stop bit, no parity, no hardware handshake.
    4.3 Connect to the MGE UPS SNMP card with the password "MGEUPS" (or possibly "lapxm")
    4.4 Select the "1. Agent Configuration" option.
    4.5 Verify that the SNMP/Web Agent Version is at least "CB"
    4.6 Verify that the "IP Address" is set to 10.0.2.1 (*Use customer specified IP address if provided*)
    4.7 Verify that the "Gateway Address" is set correctly, changing if necessary.
    4.8 Verify that the "Network Mask" is set to 255.255.255.0 (*Use customer specified IP address if provided*)
    4.9 Verify that the "Community Read/Write" is set to "public", changing if necessary.
    4.10 Verify that the "BOOTP/DHCP Enabled" option is set to "Disabled", changing if necessary.
    4.11 Change the sysContact, sysName, and/or sysLocation as desired.
    4.12 Select the "0. Return to previous menu" option
    4.13 Select the "3. Access Control Table" option.
    4.14 Select the "1. Modify - Modify an entry of table" option to add the IP address of the radar computer and the maintenance computer (laptop) (if used).
    4.14.1 For example:

IP Address	Community String	Access
[1] 10.0.2.1	public	Read/Write
[2] 10.0.2.4	public	Read/Write

    4.15 Select the "0. Return to previous menu" option.
    4.16 Select the "6. Reset Agent" option.
        4.16.1 Note that the UPS SNMP card will not use a newly configured IP address until the card is reset by this option or the reset switch on the card.
    4.17 Verify that the radar computer can connect to the UPS SNMP web page using Internet Explorer and the IP address from 4.6.

5. Set up LAPXM in the radar computer to communicate with the UPS SNMP card.
    5.1 Edit the "C:\Program Files\CRADA\LapXM\Config\Lapxm_BaseModules.cfg" file.
    5.2 Verify that the "Monitor_HwInterface_Ups_Snmp section contains an option like the following (changing the IP address as appropriate):

        // IP address of the UPS SNMP card
            sIpAddress = "10.0.2.5";

    5.3 Close any "Internet Explorer" or other web browsers that may be accessing LAPXM.
    5.4 Stop, then restart the "LAPXM" service.
    5.5 (Re)Start the web browser and connect to the LAPXM web page.
    5.6 Verify that the lower left-hand window does not show any messages about failure to connect to the UPS.
    5.7 Load a radar configuration and start it.

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