Luminex®

Upgrade Instructions

xPONENT® 4.2 for FLEXMAP 3D®

© 2016 Luminex Corporation. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, or translated into any language or computer language, in any form or by any means without prior express, written consent of Luminex Corporation.

Luminex Corporation
12212 Technology Blvd.
Austin, TX 78727
U.S.A.

Technical Support
Telephone: 512-381-4397
North America Toll Free: 1-877-785-2323
International Toll Free: + 800-2939-4959
Email: *support@luminexcorp.com*
www.luminexcorp.com

xPONENT® 4.2 for FLEXMAP 3D® Upgrade Instructions
89-00002-00-294 Rev A
September 2016

Luminex Corporation (Luminex) reserves the right to modify its products and services at any time. Notifications will be sent to end users regarding changes that impact the use, performance and /or safety and effectiveness of the device. Any modifications to the device will be made in accordance with applicable regulatory requirements. Luminex assumes no liability for any damages resulting from the off-label application or misuse of this information.

Luminex, FLEXMAP 3D, and xPONENT are trademarks of Luminex Corporation, and registered in the U.S. and other countries.

All other trademarks, including Microsoft®, SQL Server®, Intel®, and DELL® are trademarks of their respective companies.

This product, or use thereof, is covered, in whole or in part, or made by processes covered by one or more patents: *www.luminexcorp.com/patents*.

End-User License Agreement (EULA) for Luminex® Software

This Luminex End-User License Agreement (“EULA”) is a legal agreement between you (either an individual or a single entity, also referred herein as “you”) the end-user and Luminex Corporation and its affiliates (collectively, “Luminex”) regarding the use of Luminex or third party software product provided to you by Luminex or its authorized reseller, which includes computer software, scripts, algorithms, and online or electronic documentation and may include associated media and printed materials (if any) (“SOFTWARE”). The terms also apply to any updates, supplements, web content or Internet-based services, such as remote access.

BY USING, INSTALLING, OR ACCESSING THE SOFTWARE, YOU ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THESE TERMS, DO NOT USE, INSTALL, AND/OR ACCESS THE SOFTWARE. INSTEAD, RETURN IT TO LUMINEX OR THE LUMINEX AUTHORIZED RESELLER FROM WHICH YOU PURCHASED OR OBTAINED THE SOFTWARE (IF APPLICABLE, FOR A REFUND OR CREDIT). IF YOU COMPLY WITH THESE LICENSE TERMS, YOU HAVE THE RIGHTS TO USE THE SOFTWARE AS SPECIFICALLY SET FORTH BELOW.

1. **OVERVIEW.** The SOFTWARE is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE is licensed, not sold.
2. **ADDITIONAL LICENSING REQUIREMENTS AND/OR USE RIGHTS**.
   a. **Trial and Conversion.** Some or all of the SOFTWARE may be licensed on a trial basis. Your rights to use trial SOFTWARE are limited to the trial period. The trial SOFTWARE and length of the trial period are set forth during the activation process or otherwise set forth in a written agreement between Luminex and you. The SOFTWARE may be used for evaluation purposes only during the trial period and not for any commercial use, including without limitation to any diagnostic use. You may have the option to convert your trial rights to perpetual rights. Conversion options will be presented to you at the expiration of your trial period.
   b. **Activation.** For certain SOFTWARE, you can activate the SOFTWARE by obtaining a license key provided by Luminex Technical Support at support@luminexcorp.com or 1-877-785-2323 or 1-512-381-4397.
   c. **Branding.** You may only add additional branding or other graphics to SOFTWARE with Luminex's express written consent. For certain SOFTWARE, Luminex may permit you to upload your logo onto the SOFTWARE pursuant to the instructions and terms provided by Luminex.
   d. **Upgrades.** You may only obtain updates or upgrades for the SOFTWARE from Luminex Technical Support at orders@luminexcorp.com or authorized resellers. For certain SOFTWARE, Luminex may permit downloading updates or upgrades from a Luminex authorized Website. For more information on obtaining updates from authorized resellers, see *http://www.luminexcorp.com*.
3. **GRANT OF LICENSE.** Subject to the terms and conditions of this EULA, Luminex hereby grants to you a non-exclusive, non-transferable, non-assignable license (without right to sublicense) under Luminex's copyrights and trade secrets to use the SOFTWARE on a single computer running with a single unit of a specific model of Luminex instrument, as such model is identified on the packaging included with the SOFTWARE. For certain SOFTWARE that is not integrated into a Luminex instrument and provided on a separate medium and/or does not require activation, you may make one (1) copy of the SOFTWARE for backup or archival purposes only. For some of such SOFTWARE, you may also install the SOFTWARE on up to two (2) additional computers for purposes of performing ancillary tasks (i.e. preparing templates/protocols, performing further analysis or re-running previous data), provided such computers are at a single location and are NOT connected with a Luminex instrument. In addition, you may purchase the right to use the SOFTWARE on additional computers, as agreed to in writing with Luminex or its authorized reseller, for purposes of performing ancillary tasks (i.e. preparing templates/protocols, performing further analysis or re-running previous data), provided such computers are at a single location and are NOT connected with a Luminex instrument. Although no rights or licenses under any of Luminex's patents are granted by or shall be implied from the license of the SOFTWARE or the sale of a Luminex instrument to you, the purchaser, you may obtain a license under Luminex's patents, if any, to use a Luminex instrument with microsphere beads or cassettes, as applicable, authorized by Luminex, or with kits developed, manufactured, and distributed by licensees authorized in writing by Luminex, by purchasing such beads, cassettes, or kits from Luminex or an authorized Luminex reseller or licensee.
4. **RESTRICTIONS**.
   a. SOFTWARE must only be installed and operated on a single computer running with or in connection with a Luminex instrument, as set forth above.

b. You may not use this SOFTWARE for any commercial purpose, including in the performance of testing services, unless expressly agreed to in writing by Luminex or as authorized in writing by Luminex through an authorized reseller of the SOFTWARE.

c. You may only use the SOFTWARE with microspheres or cassettes, as applicable, authorized by Luminex or with kits developed, manufactured and distributed by licensees authorized in writing by Luminex.

d. You must maintain all proprietary notices on all copies of the SOFTWARE.

e. You may not distribute copies of the SOFTWARE to third parties.

f. You may not reverse-engineer, decompile, disassemble, or otherwise attempt to derive source code from the SOFTWARE.

g. You may not copy (other than one backup or archival copy), sell, distribute, sublicense, rent, lease, transfer or grant any rights in or to all or any portion of the SOFTWARE.

h. You must comply with all applicable laws and regulations, including Food and Drug Administration requirements, regarding the use of the SOFTWARE.

i. You may not modify or prepare derivative works of the SOFTWARE, including modifying any branding or graphics.

j. You may not use the SOFTWARE in a computer-based service business, in the operation of a service bureau, or otherwise for the benefit of any third party, or publicly display visual output of the SOFTWARE.

k. You may not transmit the SOFTWARE over a network, by telephone, or electronically by any means.

l. You acknowledge your obligation to inform your employees, consultants, and associates who will be using the SOFTWARE, of Luminex's labeling literature, warnings, instructions, notices, and other materials regarding proper use that Luminex has provided or may hereafter provide to you.

5. **TERM AND TERMINATION.** Your rights under this EULA are effective until termination. You may terminate this EULA at any time by destroying the SOFTWARE, including all computer programs and documentation, and erasing any copies residing on your computer equipment. Luminex may terminate this EULA upon thirty (30) days written notice to you. Your rights under this EULA automatically terminate without further action on the part of Luminex if you do not comply with any of the terms or conditions of this EULA. Upon any termination of this EULA, you agree to destroy the SOFTWARE and erase any copies residing on your computer equipment.

6. **RIGHTS IN SOFTWARE.** All rights and title in and to the SOFTWARE and any copies thereof are owned by Luminex or its suppliers. This EULA is not a sale and does not transfer to you any title or ownership interest in or to the SOFTWARE or any patent, copyright, trade secret, trade name, trademark or other intellectual property right therein. You shall not remove, alter, or obscure any proprietary notices contained on or within the SOFTWARE and shall reproduce such notices on any back-up copy of the SOFTWARE. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE is the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content.

7. **EXPORT RESTRICTIONS.** You agree that you will not export or re-export the SOFTWARE to any country, person, entity, or end-user subject to U.S.A. export restrictions or in a manner that is contrary to any local, provincial, state, national, international, and foreign laws or regulations applicable to you. You hereby warrant no state or federal agency has suspended, revoked, or denied your export privileges.

8. **NO WARRANTY.** THE SOFTWARE IS LICENSED "AS IS, WHERE IS.**"** ANY USE OF THE SOFTWARE IS AT YOUR OWN RISK WITHOUT WARRANTY OF ANY KIND. THE SOFTWARE IS PROVIDED FOR USE ONLY WITH LUMINEX PRODUCTS. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, LUMINEX AND ITS SUPPLIERS DISCLAIM ALL CONDITIONS, TERMS, REPRESENTATIONS, AND WARRANTIES, EITHER EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, OR NONINFRINGEMENT OF INTELLECTUAL PROPERTY.

9. **LIMITATION OF LIABILITY.** IN NO EVENT SHALL LUMINEX, ITS AFFILIATES, LICENSORS, AUTHORIZED DISTRIBUTORS, OR SUPPLIERS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE, OR THE RESULTS OF THE USE OF THE SOFTWARE, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY), OR ANY OTHER LEGAL THEORY, AND EVEN IF LUMINEX, ITS AFFILIATES, LICENSORS, AUTHORIZED DISTRIBUTORS, OR SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. YOU ACKNOWLEDGE THAT

THE “AS IS” AND LIMITATION ON LIABILITY PROVISIONS CONTAINED IN THIS AGREEMENT CONSTITUTE MATERIAL TERMS OF THE CONTRACTUAL BARGAIN BETWEEN THE PARTIES AND THAT NO LICENSE WOULD BE PROVIDED IN THE ABSENCE OF SUCH PROVISIONS.

10. **YOUR REPRESENTATION AND INDEMNITY**. You represent and warrant that you shall use the Software in accordance with the terms of this Agreement, and that any such use of the Software will not violate any law, regulation, judicial order or injunction. You agree to defend, indemnify and hold Luminex and its authorized resellers and licensors, and each of their respective officers, directors, employees, agents, successors and assigns harmless from and against any loss, damage, claim, cost, expense or other liability (including, without limitation, legal fees and amounts reasonably paid in settlement) suffered or incurred by Luminex as a result of any claim or cause of action by a third party arising out of, based upon or relating to: (i) your use of the SOFTWARE, (ii) your use of or reliance on any evaluation, analytic results or other data derived from the SOFTWARE, or (iii) any breach by you or any of your representatives of the terms of this Agreement.
11. **MISCELLANEOUS.** This EULA is governed by the laws of the State of Texas, U.S.A., without reference to conflicts of laws principles. You shall not assign or sublicense or otherwise transfer the rights or license granted hereunder, by agreement or by operation of law, without the prior written consent of Luminex, and all assignments in violation of this prohibition shall be null and void. This EULA is the complete and exclusive agreement of Luminex and you and supersedes all other communications, oral or written, relating to the subject matter hereof. No change to this EULA shall be valid unless in writing and signed by the party against whom enforcement is sought. The waiver or failure of Luminex or you to exercise in any respect any right or rights provided for herein shall not be deemed a waiver of any further right hereunder. If any provision of this EULA is held unenforceable, the remainder of this EULA will continue in full force and effect.
12. **LANGUAGE.** The parties hereto confirm their express wish that this Agreement, as well as all other documents related hereto, including notices, be drawn up in the English language only and declare themselves satisfied therewith; les parties aux présentes confirment leur volonté que cette convention, de même que tous les documents qui s'y rattachent, y compris tout avis, soient rédigés en langue anglaise et s'en déclarent satisfaits.

89-30000-00-419 Rev. D

Table of Contents

Chapter 1: xPONENT® 4.2 Upgrade

Installation Notes for the xPONENT® 4.2 1
Recommended Minimum System Requirements. 1
Display Settings 1
SQL Server Express 1
Uninstalling the Previous Version of LXMaint 2
Uninstalling the Previous Version of xPONENT® 4.2 3
Uninstalling with the Control Panel 3
Installing xPONENT® 4.2 4
Installing LXMaint 8
Installing the Firmware Update 12

Chapter 1: xPONENT® 4.2 Upgrade

Installation Notes for the xPONENT® 4.2

NOTE: Before continuing with the instructions below, ensure that you have downloaded all of the software upgrade files from the Luminex® website and save them to your desktop. Files can be downloaded directly to the PC or downloaded to a USB and transfered to your desktop.

Please see the installation instructions below. Ensure all external storage devices are disconnected.

The screen resolution, colors, font size, and theme may affect the xPONENT® display. If the graphics or text do not display properly, please adjust your display settings to the recommended system requirements.

If upgrading from a previous xPONENT installation, ensure the license file is backed up from the previous version.

Always perform a probe height adjustment after installation, on every plate type listed in xPONENT.

WARNING: Modifying or deleting any files installed by xPONENT or the computer operating system may cause corruption or failure of the xPONENT software. Modified or deleted xPONENT system files may be repaired by uninstalling and reinstalling the software.

WARNING: Use of unauthorized third party software with xPONENT software may result in corruption or failure of the xPONENT software and is done at the user's own risk.

WARNING: You must be signed in as an administrator to perform these upgrades. If you are using a Luminex provided PC, ensure that you login with the **FLEXMAP 3D Administrator** user account to perform the upgrade.

WARNING: Close all applications before starting the uninstall procedure.

Recommended Minimum System Requirements

- Windows® 7 Professional SP1 (64-bit, US English)
- 2.8 GHz Intel® Core 2 (or higher)
- 8 GB RAM
- 160 GB Hard drive space (or higher)

Display Settings

- SXGA 1280x1024 with 32 bit color
- 96 DPI Font
- Default Windows 7 Theme

SQL Server Express

This setup installs SQL Server® Express 2008 R2. Any previous version of SQL Server will not be upgraded to this release. Any currently installed services that utilize SQL Server may become inoperable.

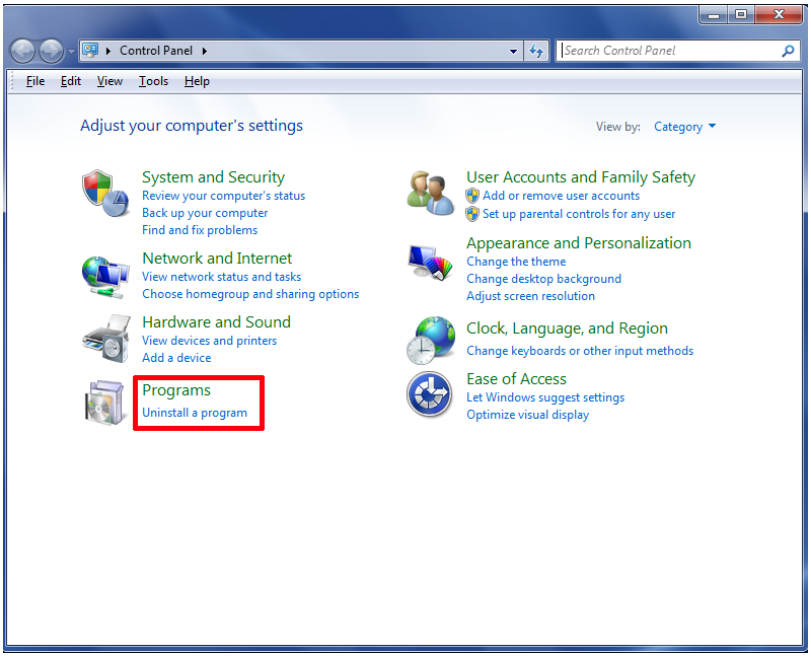
NOTE: Complete the following workflows in the order shown below. Do not skip sections or perform them out of order.

- Uninstalling the Previous Version of LXMaint
- Uninstalling the Previous Version of xPONENT
- Installing xPONENT® 4.2
- Installing LXMaint
- Installing the Firmware Update

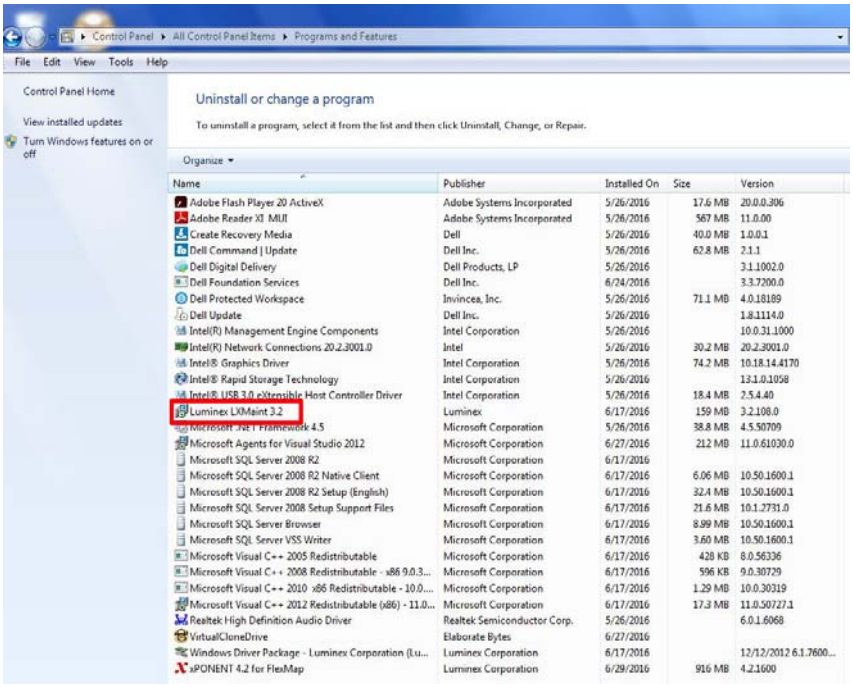
Uninstalling the Previous Version of LXMaint

NOTE: Uninstalling the previous version of LXMaint must be completed first before all other installations below.

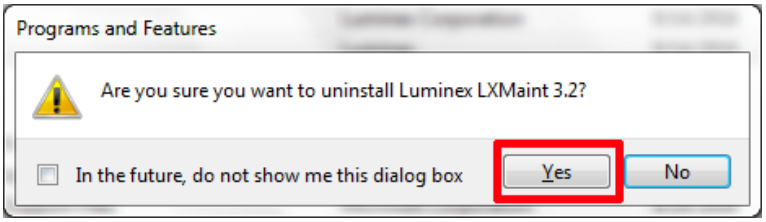
1. Click **Control Panel** and ensure the **View by** option is set to **Category**. Then navigate to **Programs > Uninstall a Program**.



2. Right-click **Luminex LXMaint 3.2** and choose **Uninstall**.



3. Click **Yes**.



4. Click **Yes** in all subsequent confirmation dialog boxes displayed to complete the uninstall process.
5. Close the **Control Panel** and restart the PC.
6. Once the PC is restarted, click **Control Panel** and ensure the **View by** option is set to **Category**. Then, navigate to **Programs > Uninstall a Program** and confirm that the **Luminex LXMaint 3.2** was uninstalled.
7. Close the **Control Panel**.

Uninstalling the Previous Version of xPONENT® 4.2

Before starting this procedure:

1. Verify that the login used for this procedure has full administrative privileges.
2. Close xPONENT® if opened.
3. Perform a backup of the xPONENT database.
   a. Navigate to the **Start menu > All Programs** and choose the **Luminex** folder.
      i. Choose the subfolder labeled **Common**.
      ii. Choose **xPONENT Archive**.
   b. Select **System Backup** (protocols, batches, kits, lots, etc.).
   c. Type in Admin login credentials and click **OK**.
   d. The system defaults to the **Public Documents** backup folder. Click **OK**.
   e. Verify that the data files have been backed up successfully.
      i. Find the **Backup** short cut folder on your desktop.
      ii. Check for the zipped folder with today's date of backup.
4. Close all software applications on the PC.

Uninstalling with the Control Panel

NOTE: The steps in this procedure must be performed in the exact order as listed.

NOTE: If an error is displayed at any time throughout this procedure, take a screenshot of the error and contact Luminex Technical Support.

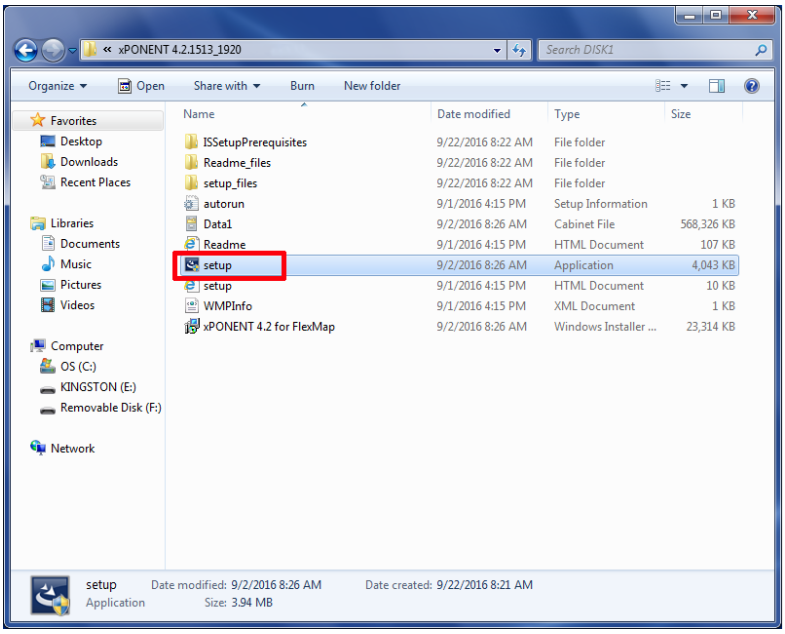
Follow these steps to uninstall xPONENT® using your PC's Control Panel.

1. Close the xPONENT software.
2. Click the **Start** menu (found in the lower left corner of the screen) and select **Control Panel**.
3. Click on **Uninstall a program** under **Programs**.
4. Select **xPONENT 4.2 for FlexMap** from the list.
5. Click **Uninstall** from the Menu Bar.
6. Click **Yes** in all subsequent confirmation dialog boxes displayed to complete the uninstall process.
7. Confirm that the uninstall was successful.
8. Close the **Control Panel**.

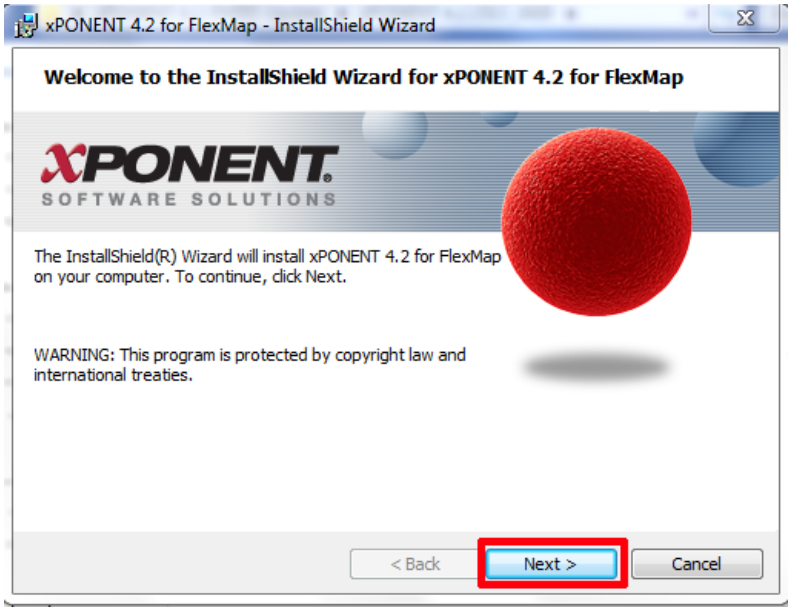
WARNING: Before continuing with the following workflows, move the xPONENT 4.2-FM3D-Update files to your desktop and unzip the folder.

Installing xPONENT® 4.2

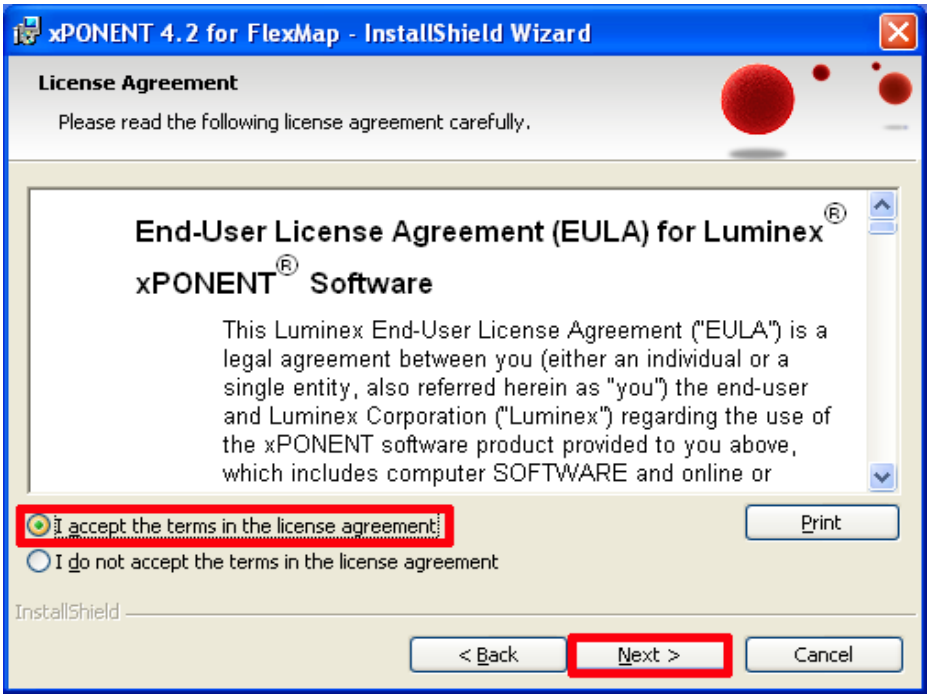
1. From the downloaded files on your desktop, open the **xPONENT4.2-FM3D-Update > xPONENT 4.2.1513_1920** folder.
2. Double-click the **setup** file.



3. Click **Yes** to subsequent confirmation dialog boxes displayed to complete the install process.
4. Click **Next**.

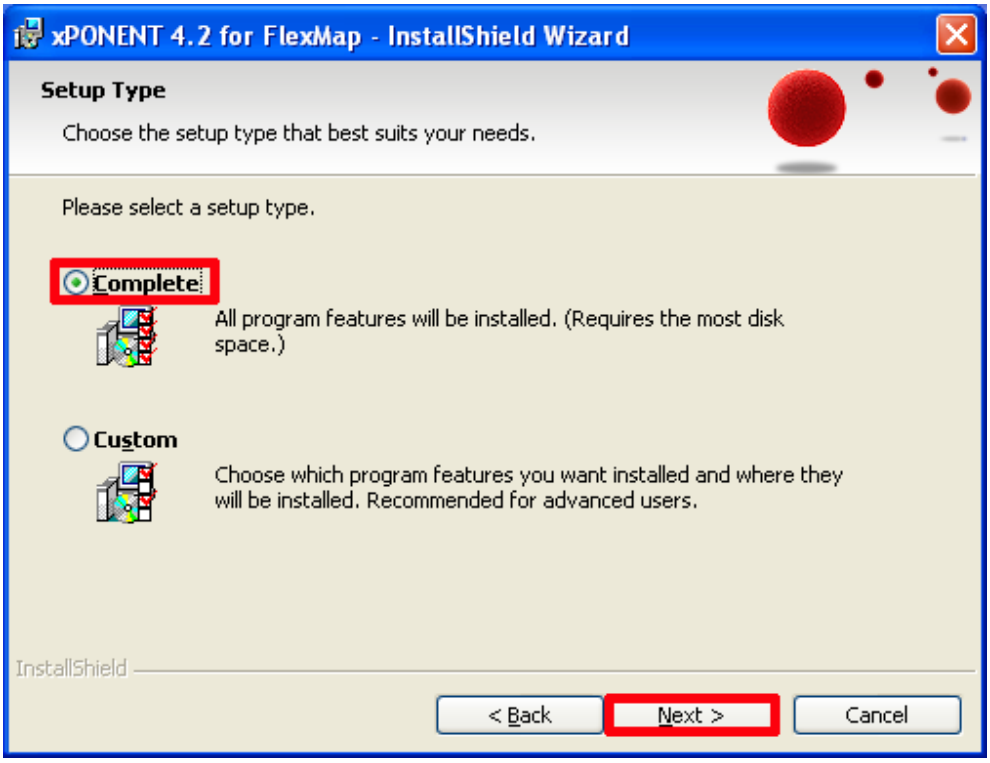


5. Read through the **License Agreement** and once done, select the **I accept the terms in the license agreement** radio button. Click **Next**.

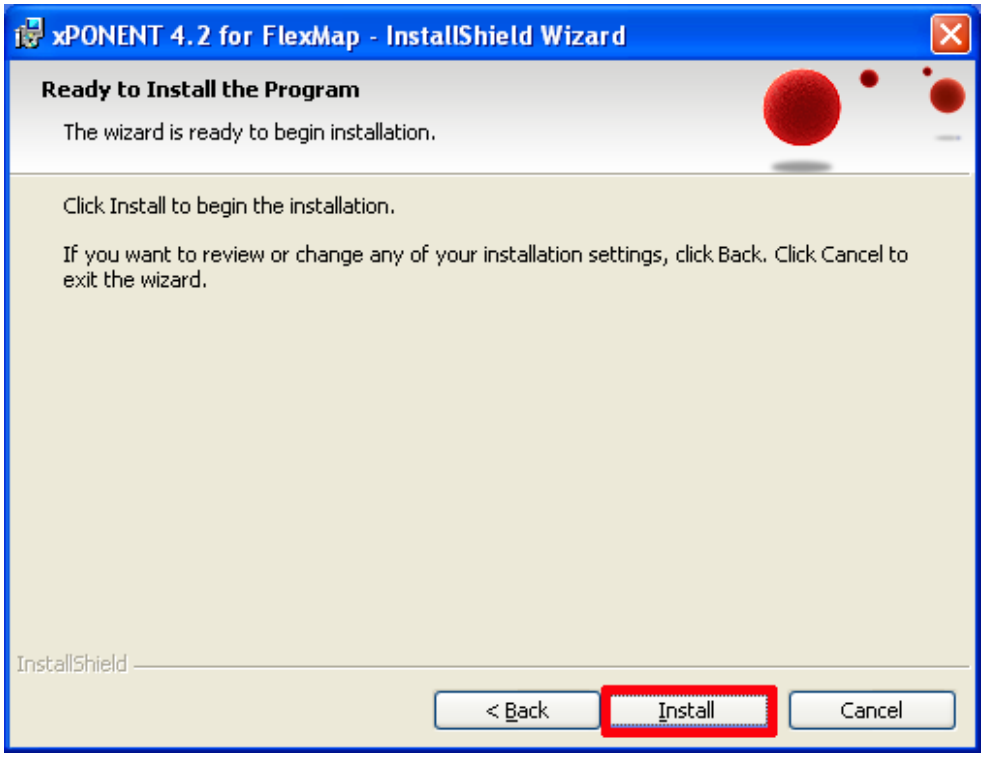


6. Click **Next**.

7. Select the **Complete** radio button and click **Next**.



8. Click **Install**.



9. Once completed, click **Finish**.

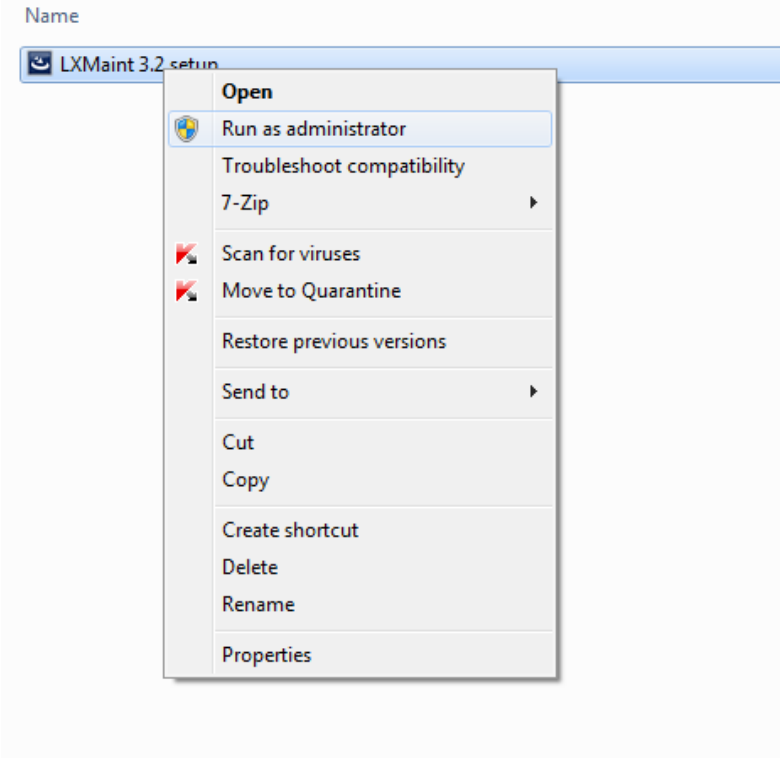
10. Close the **Control Panel**.
11. Restart the PC.
12. Confirm that the installation was successful. Click **Control Panel** and ensure the **View by** option is set to **Category**. Then navigate to **Programs > Uninstall a Program** and confirm that **xPONENT4.2.1920** is now listed.

    NOTE: Please note that the number 1920 refers to the upgrade. The software version is **xPONENT4.2.1513.1920.**

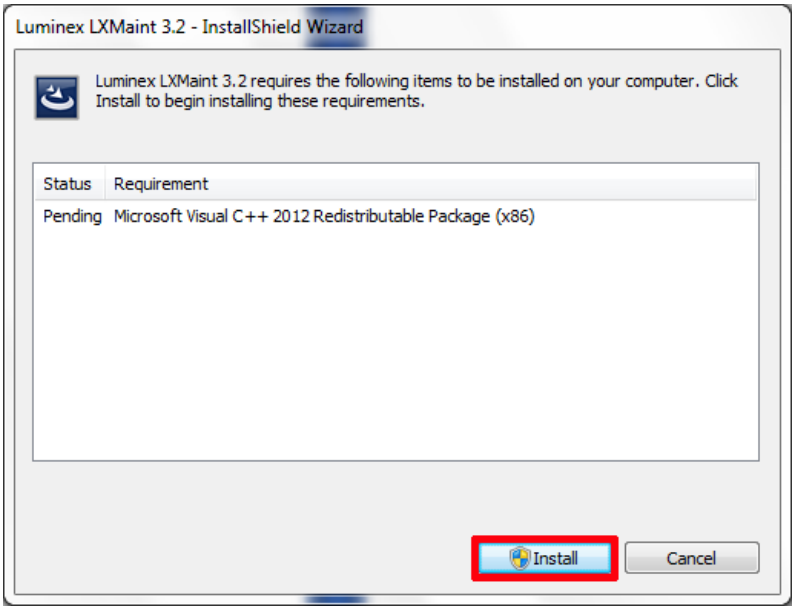
13. Close the **Control Panel**.

Installing LXMaint

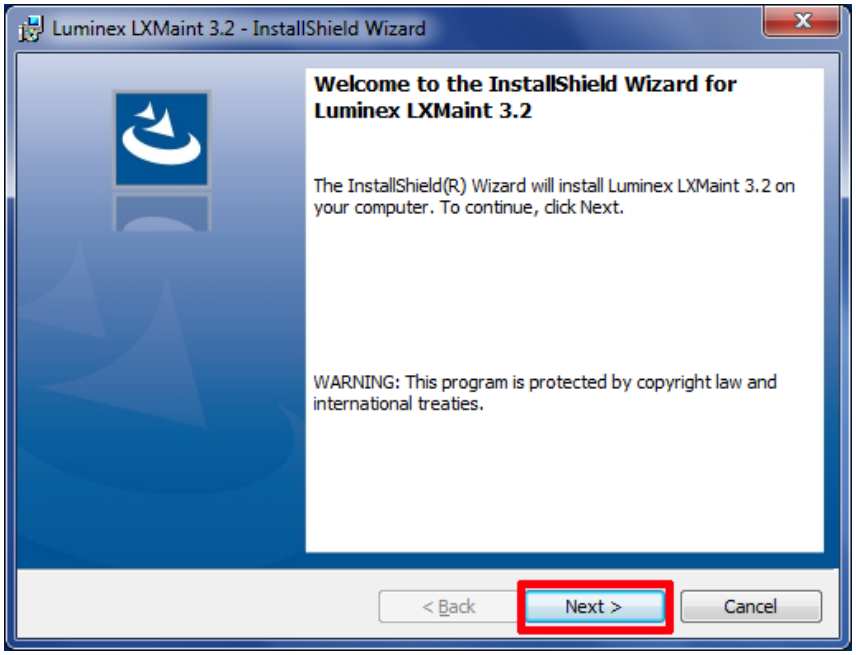
1. From the downloaded folders on your desktop, open the **LxMaint 3.2.204** file. Right-click on **LXMaint 3.2 setup** and choose **Run as administrator**.



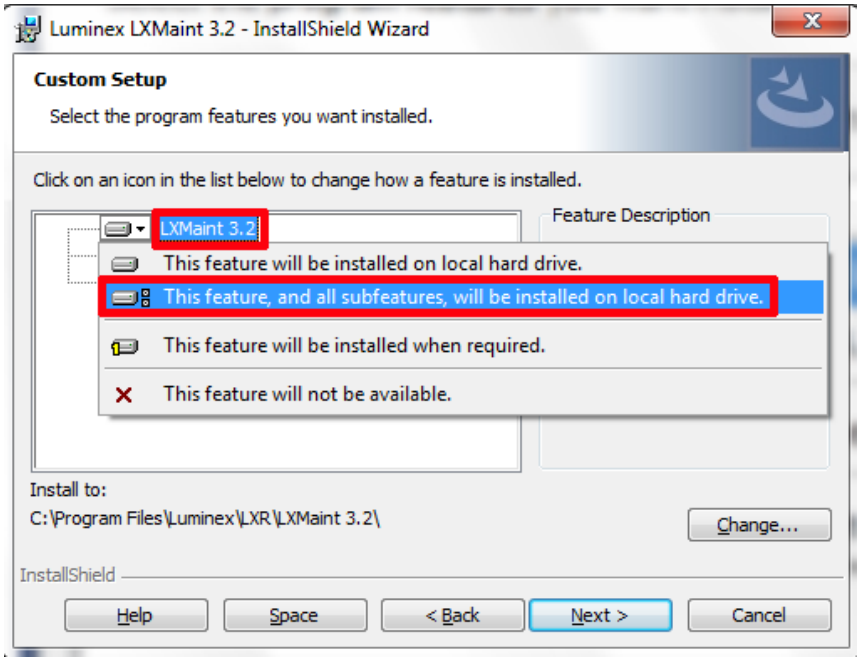
2. Click **Yes** in all subsequent confirmation dialog boxes displayed to complete the install process.
3. If applicable, click **Install**.



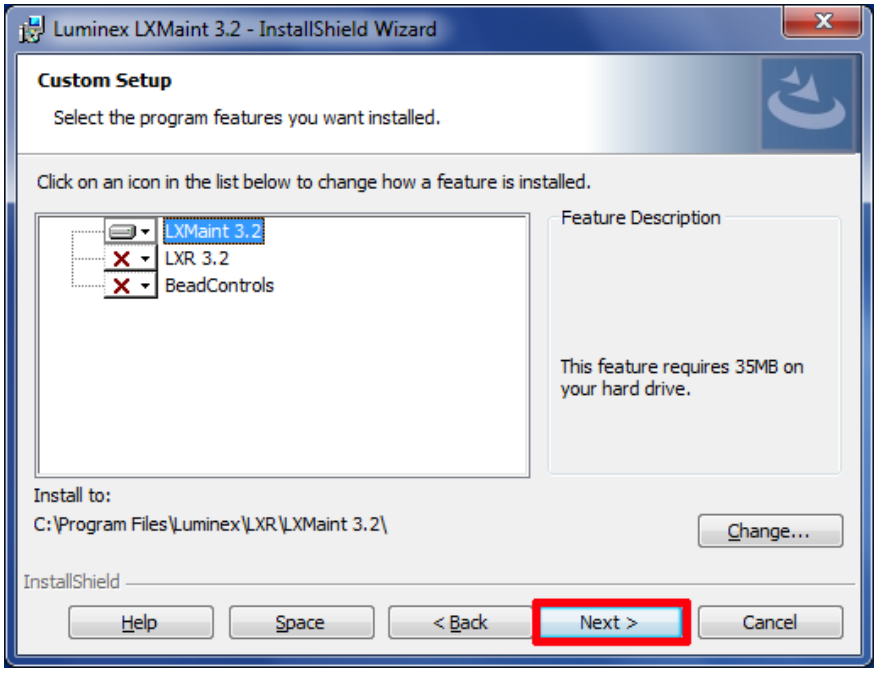
4. Click **Next**.



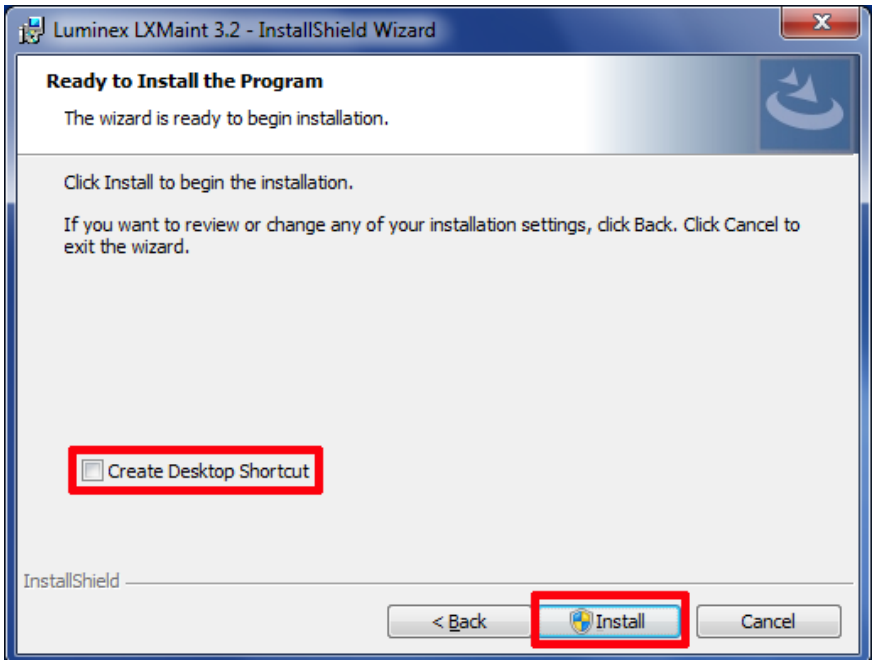
5. Click the drop-down arrow next to **LXMaint 3.2** and choose **This feature, and all subfeatures, will be installed on local hard drive.** from the list.



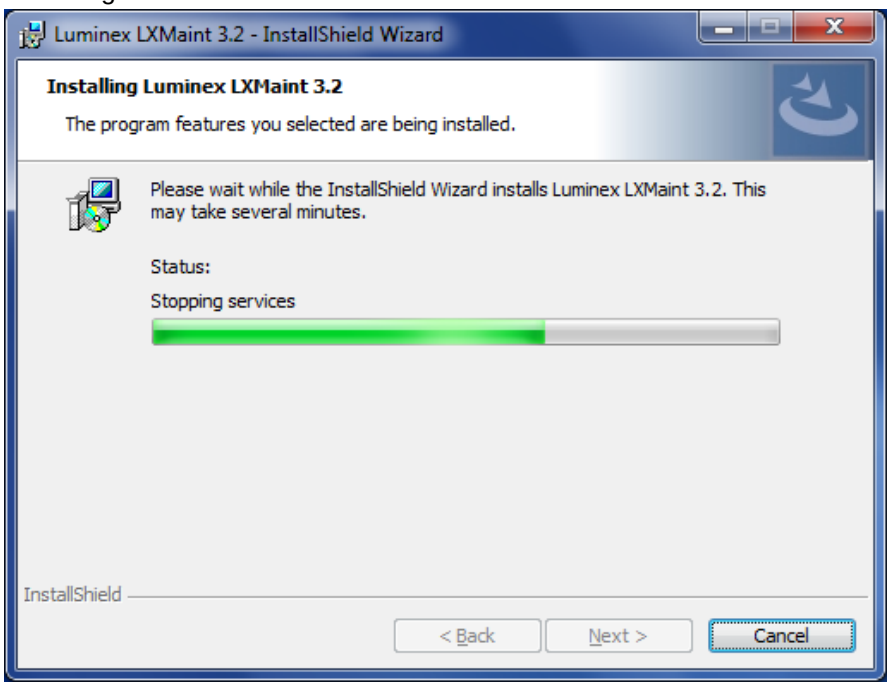
6. Click **Next**.



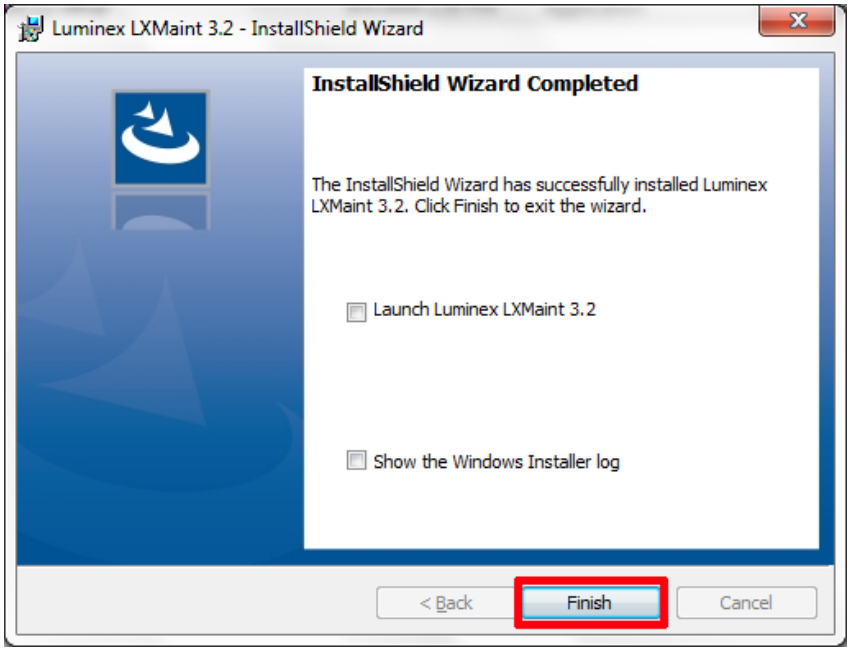
7. Ensure that the **Create Desktop Shortcut** check box is NOT selected and click **Install**.



8. The software begins installing.



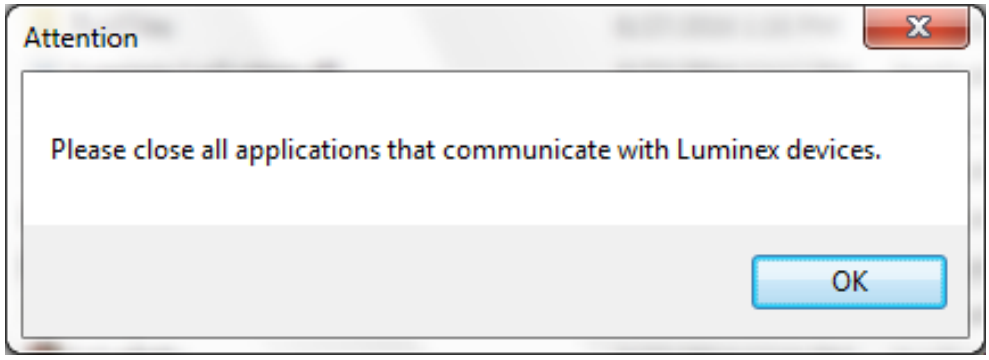
9. On the **InstallShield Wizard Completed** dialog box, click **Finish**.



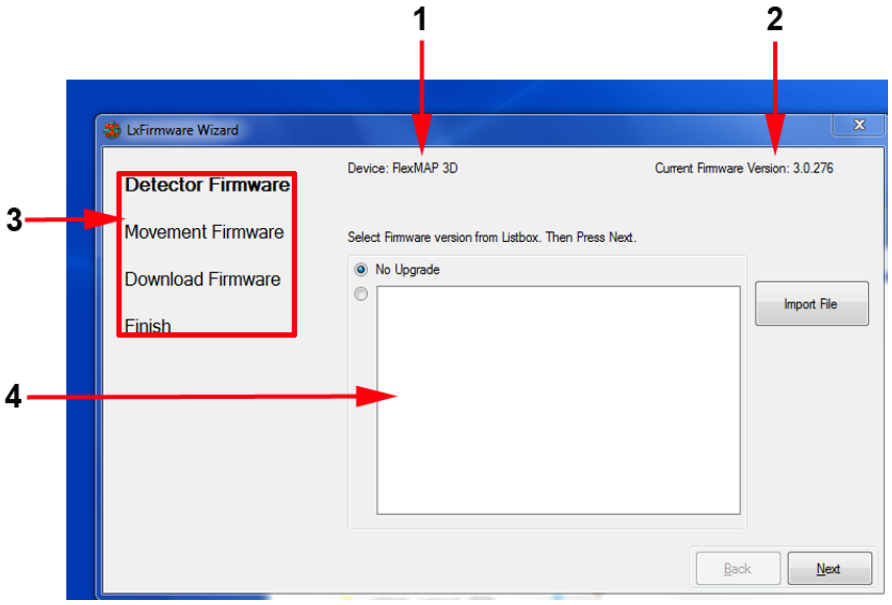
10. Close the **Control Panel**.
11. Restart the PC and the instrument.

Installing the Firmware Update

1. Ensure the PC is connected to a Luminex® FLEXMAP 3D® instrument and turn on the instrument. Allow the instrument to initialize. From the **Start** menu, navigate to **Computer > C: Drive > Program Files(x86) > Luminex > LXR** to open the **LxFirmwareWizard** application. The **Attention** dialog box opens.



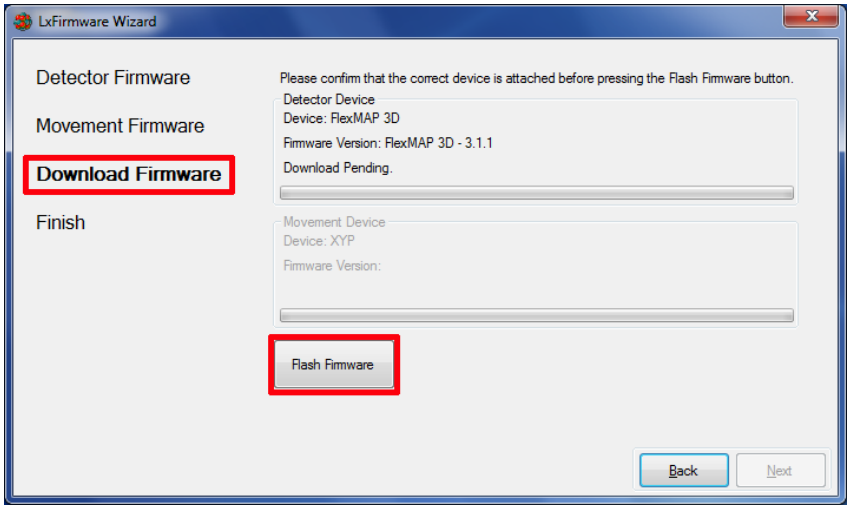
2. Close the required applications and click **OK** in the **Attention** dialog box. The **LxFirmware Wizard** opens showing the following information.



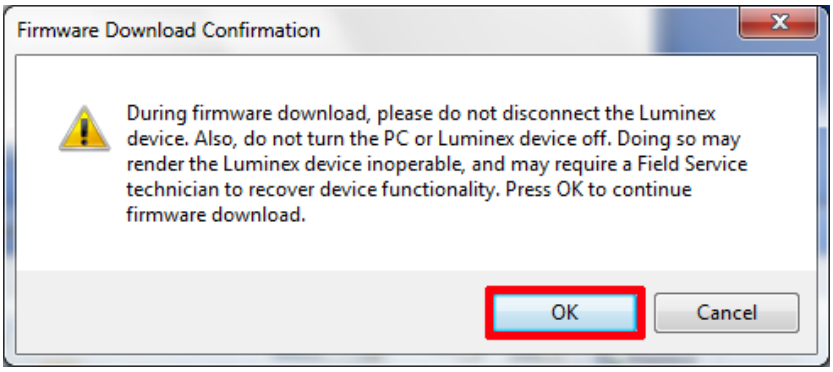
1.	Connected device
2.	Current firmware version
3.	Firmware options for the connected PC
4.	Current stage of firmware process. At this step, it is Detector Firmware.

3. From the downloaded files on your desktop, navigate to **xPONENT4.2-FM3D-Update > 3.1.1 FM3D Firmware > FlexMAP3D_3_1_1.pak**. Save the .pak files to your desktop.
   a. Click **Import File** from the **LxFirmware Wizard**.
   b. Browse to the **FlexMAP3D_3_1_1.pak** on the desktop.
   c. Select the number 4 (image above, current state of firmware process) radio button.
   d. Click **Next**.

4. The current stage of the firmware process changes to **Download Firmware** and the **LxFirmware Wizard** displays the firmware selected for download. Click **Flash Firmware**.

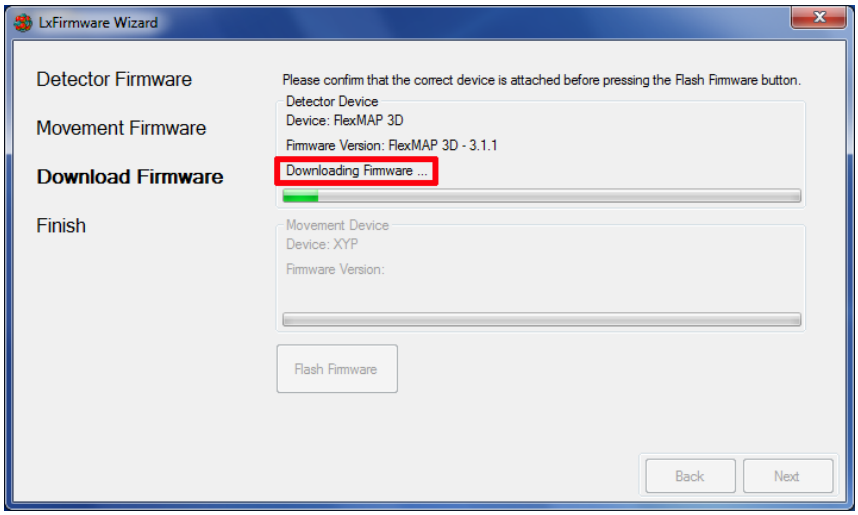


5. The **Firmware Download Confirmation** dialog box opens, displaying the warning described at the beginning of this procedure. Click **OK**.



6. Text in the **LxFirmware Wizard** dialog box changes to **Downloading Firmware**. The progress bar indicates the progress of the procedure. When the download is complete, the text in the dialog box changes to **Waiting for Device to Reset**.

NOTE: The sample valve may cycle during the download process, this is normal.

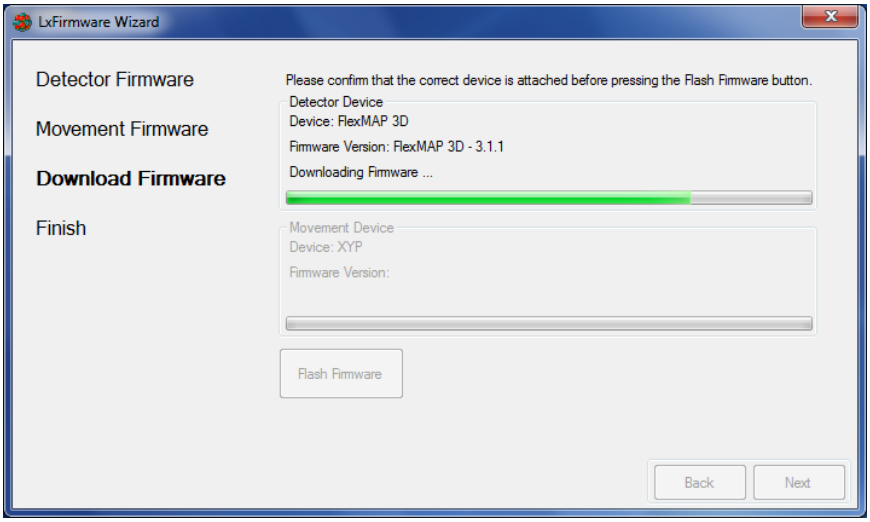


7. If at any time the firmware download crashes, complete the following:
   a. Do not exit the software.
   b. Turn off the instrument (this has to be done first to increase probability of recovery).

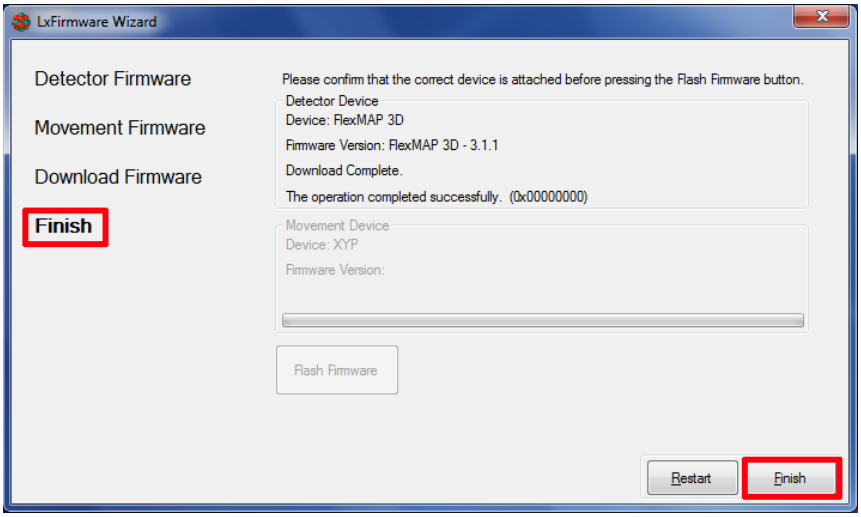
c. Exit the software and restart the PC.

d. Power up the instrument.

e. Open the **LxFirmware Wizard** and check the firmware version. When the instrument connects, restart this procedure if the firmware is not the correct version.



8. After the process is complete, the current stage of the firmware changes to **Finish**. Click **Finish** to close the **LxFirmware Wizard**.



9. Close the **Control Panel**.

10. Restart the PC and the instrument.

11. Open **xPONENT** and login**.** Then navigate to **Maintenance > System Info** and from the list, confirm the version of firmware says 3.1.1.

NOTE: Disregard date and time, they will not match the installation date.

If you have any issues during the upgrade, please contact Luminex Technical Support.

Congratulations, you have successfully installed the xPONENT upgrade. Please feel free to restart your system and perform a daily maintenance routine. If you want to restore the data that you previously archived, refer to the appropriate xPONENT Software User Manual.