

Windows Desktop Installation Guide

Lavastorm Analytics Engine

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Legend

	Indicates a prerequisite.
	Indicates an unordered list.
	Indicates a procedure with only one step.
	Indicates a procedure with multiple steps.
	Indicates the result of a procedure.
	Indicates a note. A note highlights important information.
	Indicates a tip. A tip gives you hints, for example, alternative methods for completing a task.
	Indicates a caution.
Bold text	Indicates user interface text.
<code>Code font</code>	Indicates code or system commands.
Menu > Menu item	Indicates navigation to a menu or sub menu item.
Link	Indicates a cross-reference to a section within the current document, or a link to an external document.
EXAMPLE	Indicates an example.
	Indicates an image caption.

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1. Introduction

Welcome to the LAE Windows Desktop Installation Guide. This document describes the procedure for installing and uninstalling LAE on a Windows machine.

The LAE Windows installer will install:

- BRE
- LAE Server for Windows

After the installation, the LAE license you have (or will receive) determines which features are available to you.

If you encounter any issues during the install process, contact Lavastorm Support at support@lavastorm.com or visit the Lavastorm Forums at <http://community.lavastorm.com>.



Note: The images in this guide are for illustrative purposes only.

2. Installing LAE on Windows

To install LAE on a Windows machine:

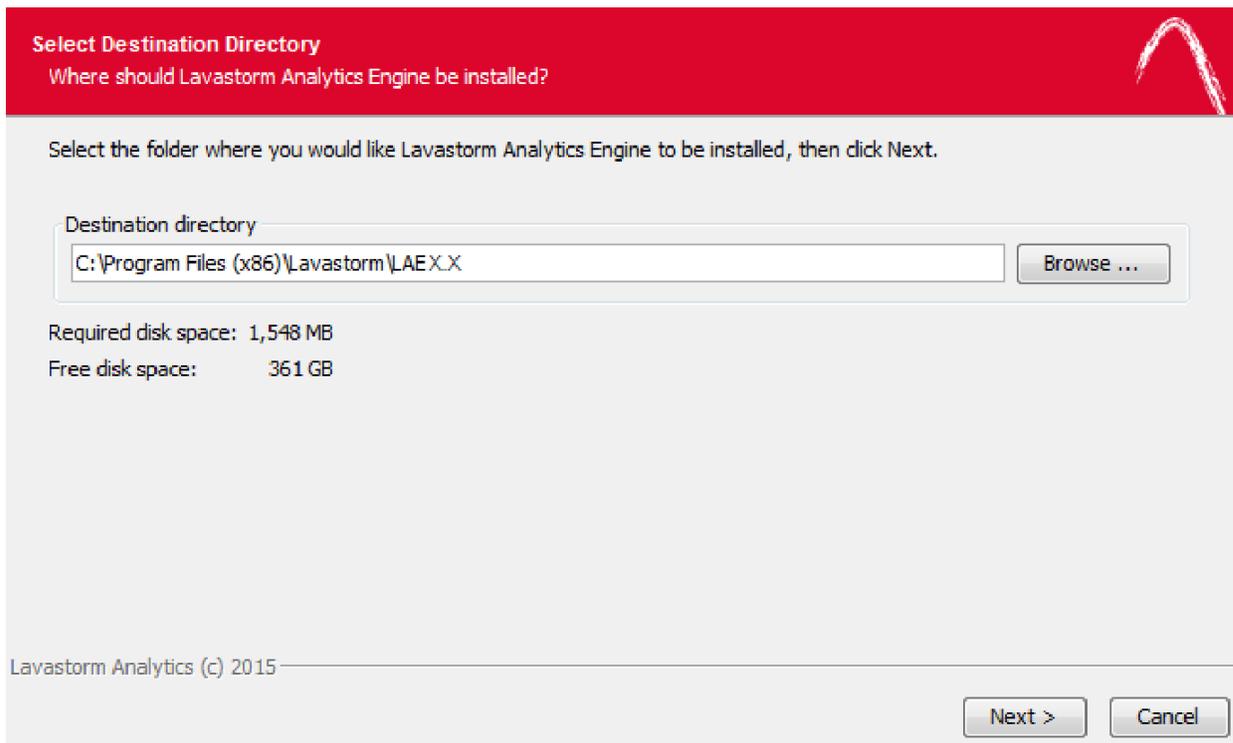
1. Locate the install program **Lavastorm Analytics Engine <version> Setup.exe**.
2. Right-click on the executable and select **Run as administrator**.

 **Note:** The installer will produce errors and fail to complete if you do not run it as administrator.

» The installer will then display a series of windows, requesting information from you.

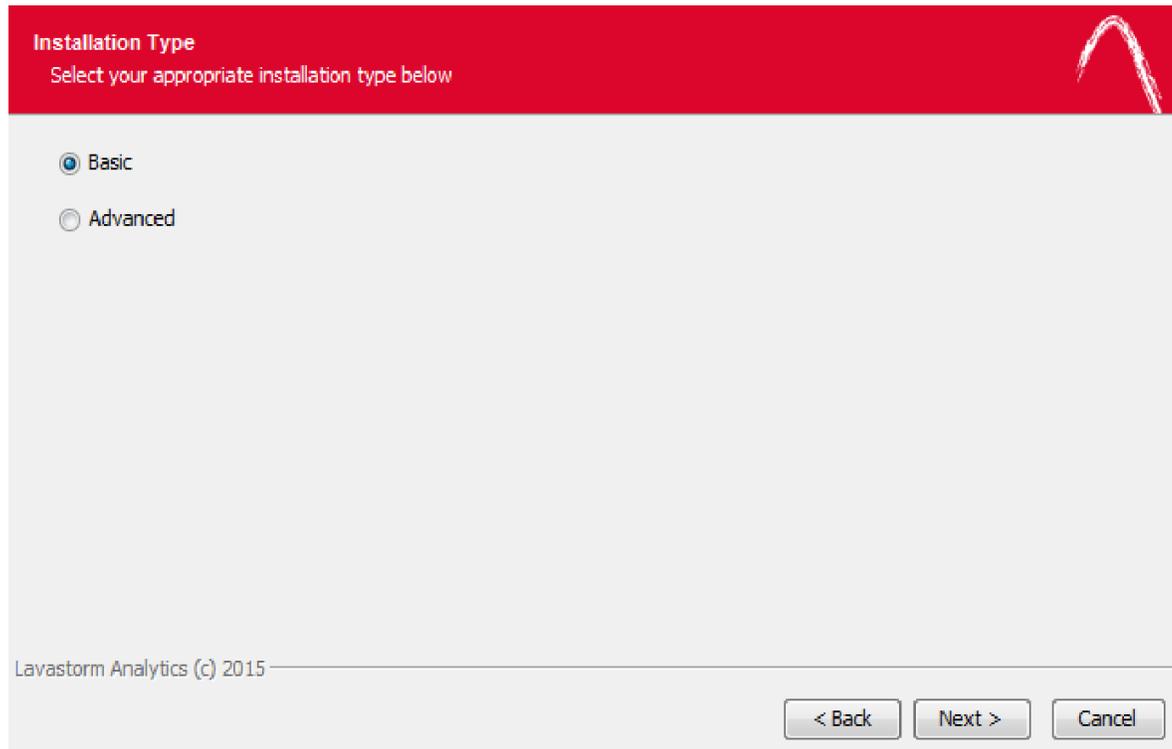
3. Accept the license agreement.

» A **Select Destination Directory** window opens:



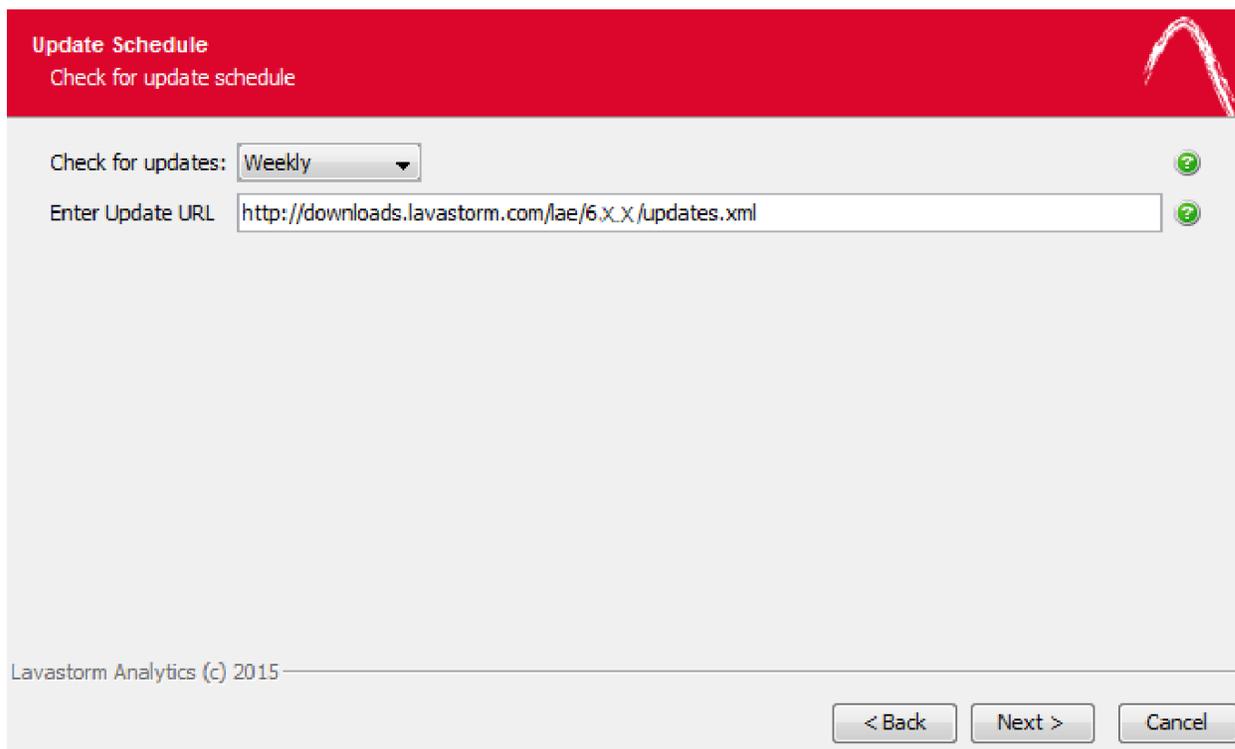
4. Accept the default setting, or modify it to specify a different destination directory.

» An **Installation Type** window appears:



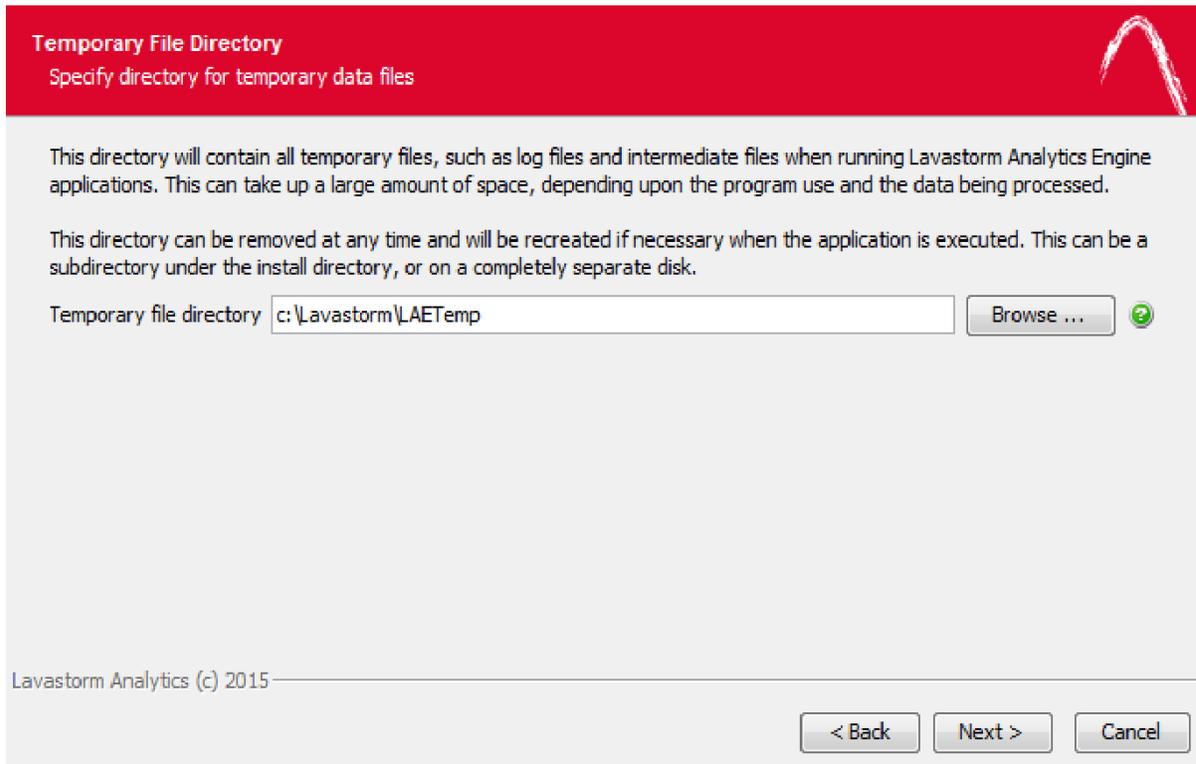
5. For a standard installation on one machine, select **Basic**. If you are an Administrator and plan to create a response file or install the software remotely on machines on your network, select **Advanced** and see the [Advanced installation](#) section of this document.

» An **Update Schedule** window appears:



6. Select the desired interval for LAE to automatically check for software updates. You can also specify an alternate Update URL if, for example, you are hosting an update server locally on your network. By default, the Update URL is set to the official Lavastorm update server.

» A **Temporary File Directory** window opens:

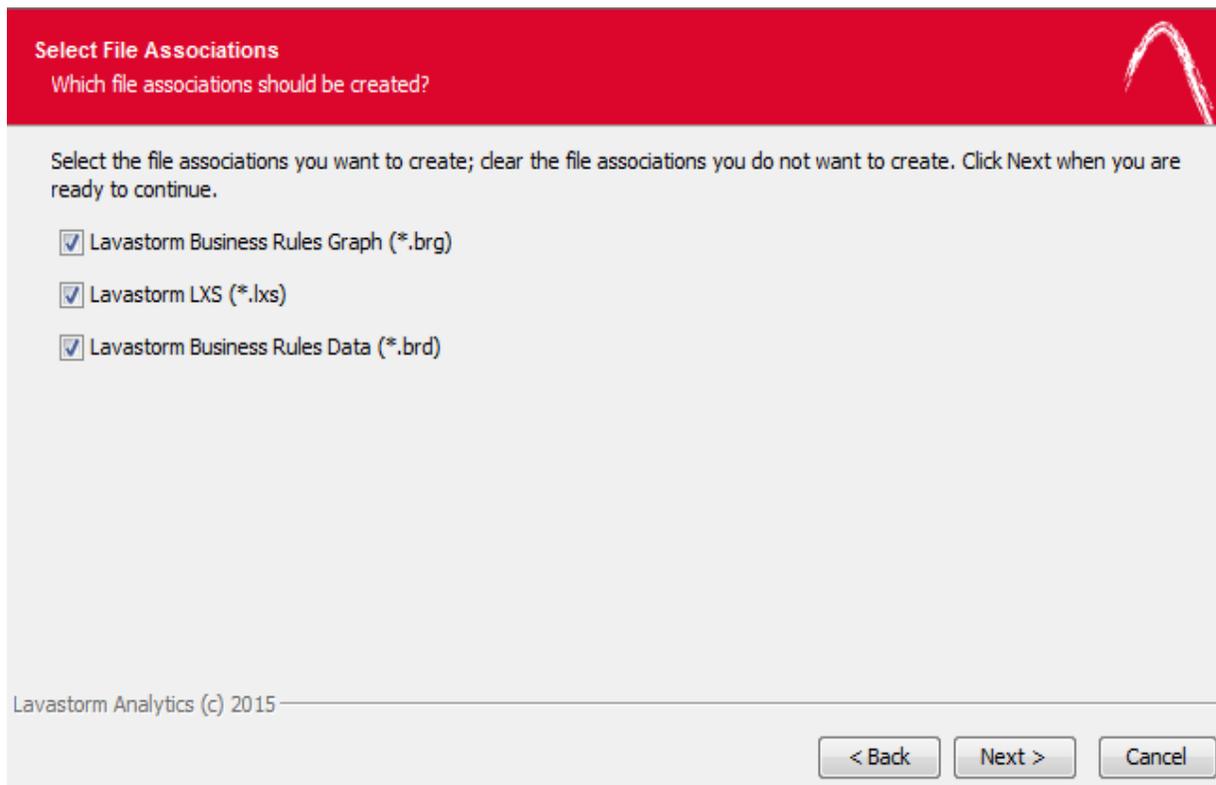


7. Accept the default setting or modify it to specify a different location for the LAE temporary directory.



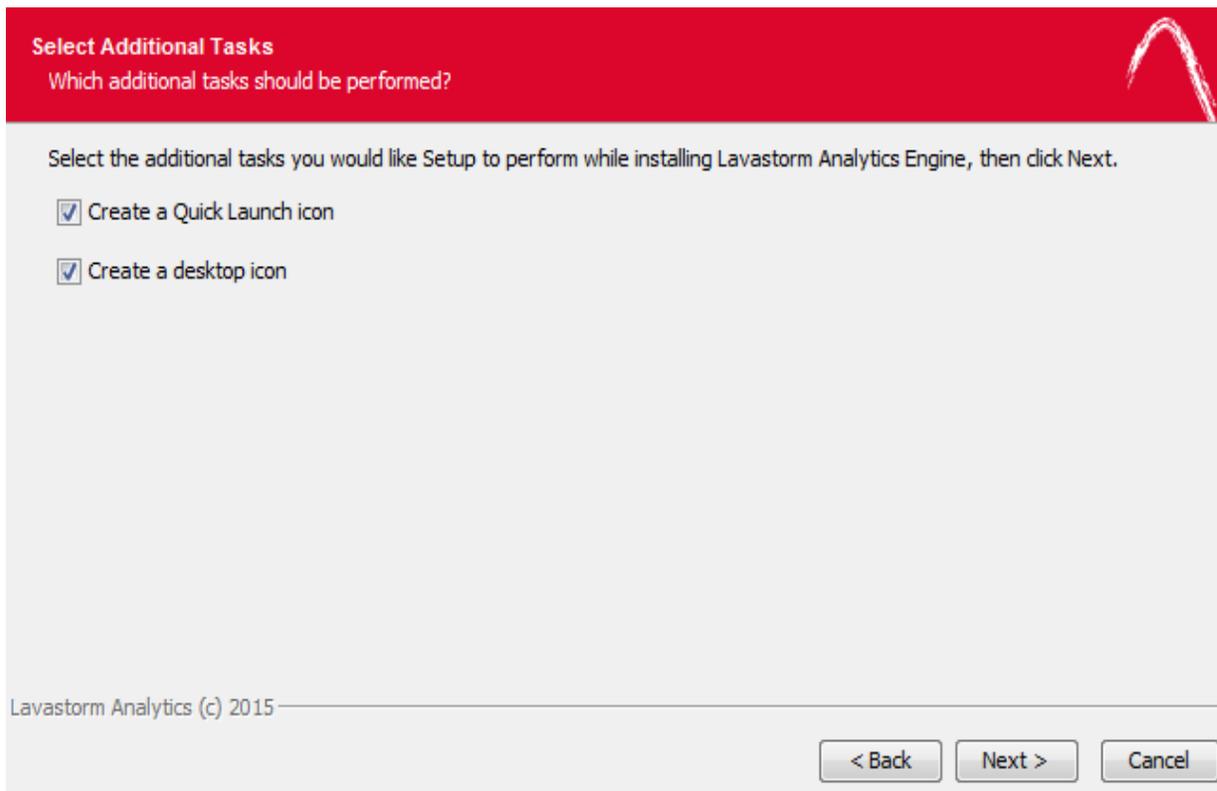
Note: This directory could become very large because this is where LAE stores all of the data on every pin in a graph when the graph executes. Ensure that the temporary directory that you choose has enough space for this.

» A **Select File Associations** window appears:



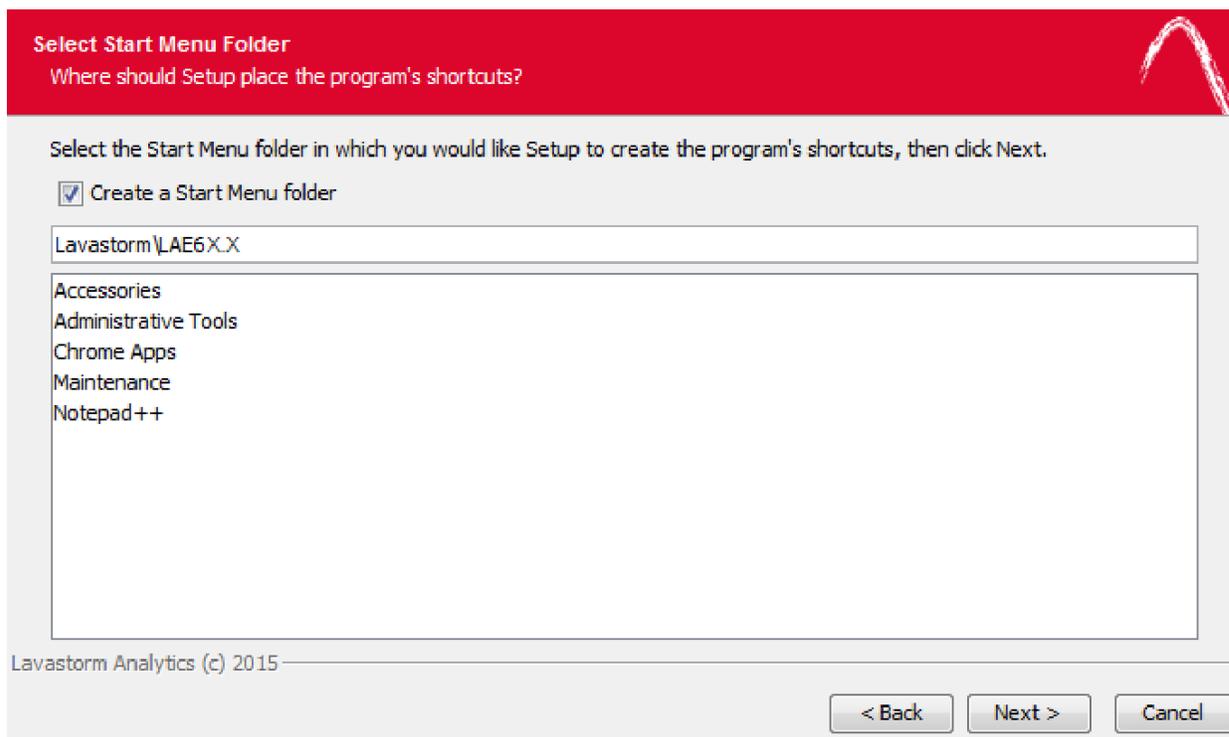
8. Accept the default setting to ensure that all LAE-related files are associated with the new software installation.

» A **Select Additional Tasks** window appears:



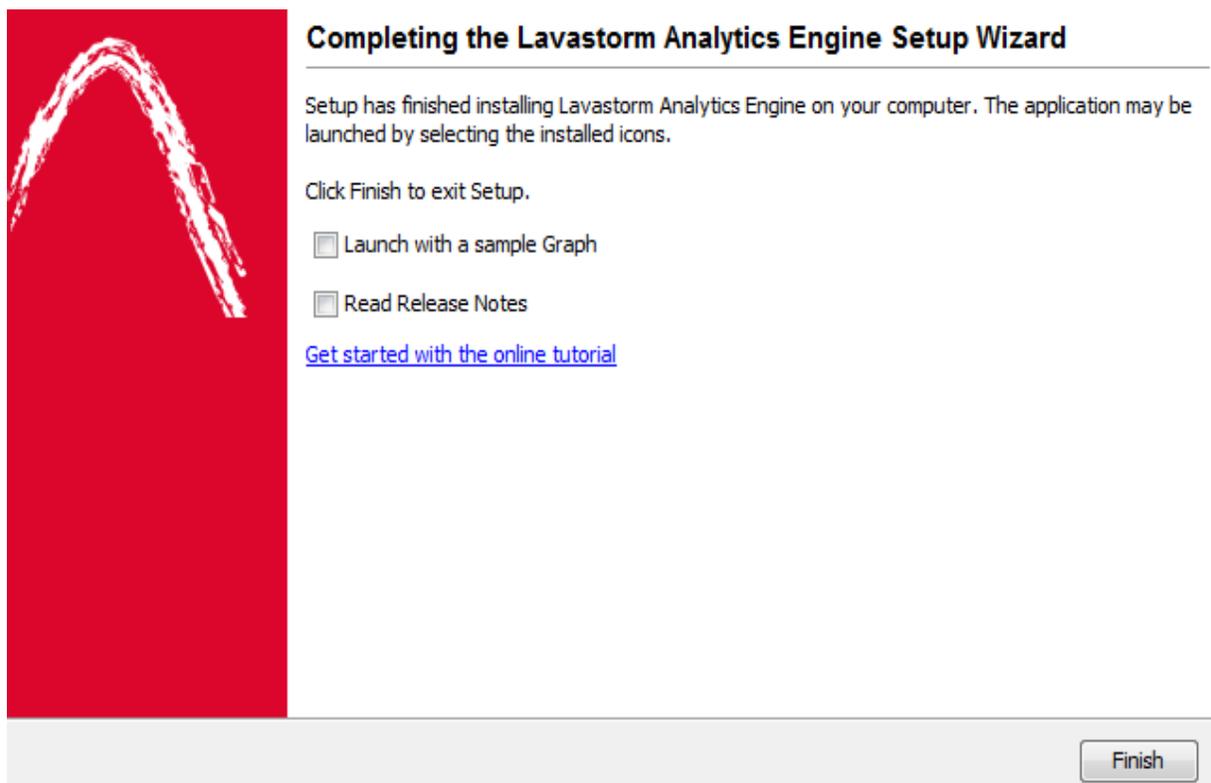
9. Specify whether you would like to create Quick Launch and desktop icons for LAE.

» A **Select Start Menu Folder** window appears:



10. Accept the default setting, or modify it to specify a different location for the LAE shortcuts. Click **Next** to start the installer.

» When the installer finishes, it displays one final window:



11. Select or clear the check boxes for launching the example graph and opening the release notes according to your preference, and click the **Finish** button to complete the installation.

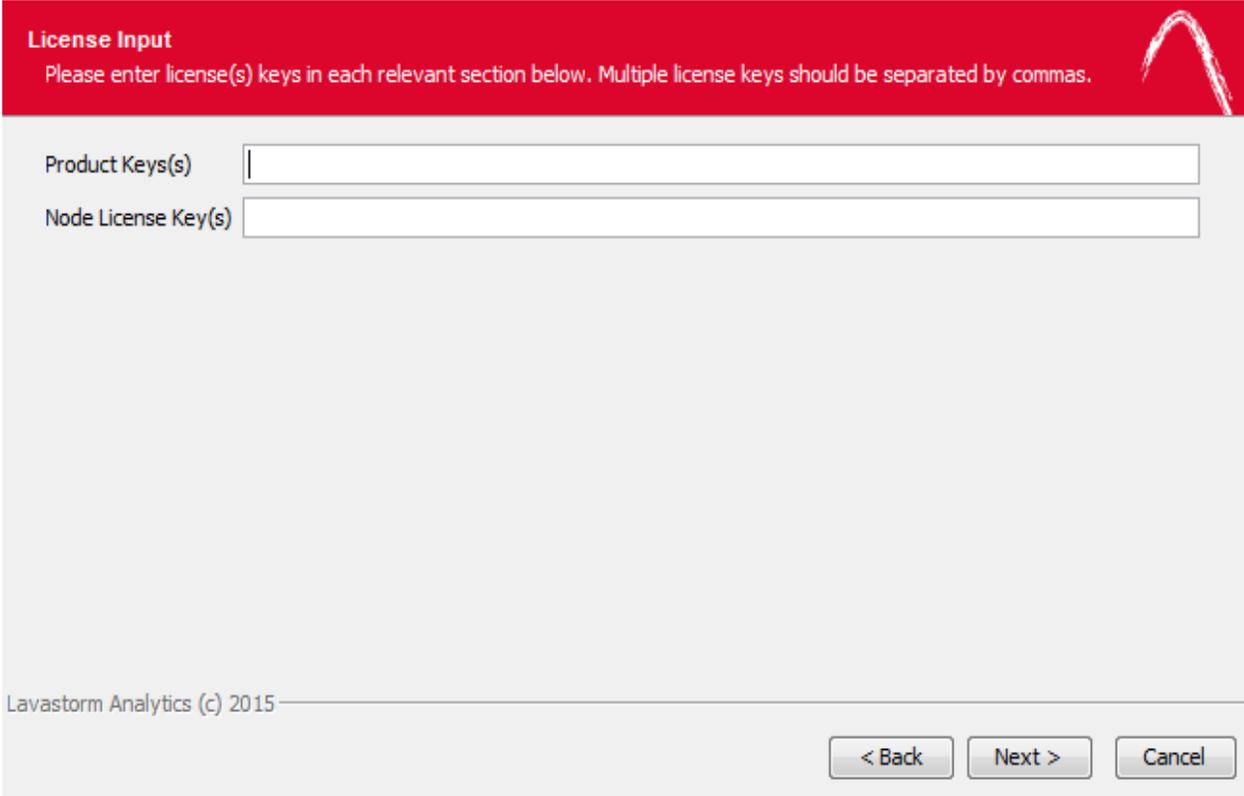
 **Note:** The LAE installation does not delete the `bre.ini` file if you had earlier versions of the software previously installed on your machine. You must open BRE and update your preferences accordingly for the new installation.

3. Advanced installation

In addition to the standard installation, there is also an Advanced install flow for the Windows desktop version of the product. This advanced flow allows you to specify LAE license keys, node license keys, and server farm configuration directly from the installer so that they are already applied when the end user opens the software for the first time.

The Advanced install flow also enables you to take advantage of LAE's unattended, or "silent", install option by generating a response file, which can then be used to perform remote installations of the software on network machines. The unattended install process is described in more detail in [Unattended installation \(silent install\)](#) section of this installation guide.

If you select the Advanced installation option, a **License Input** window appears:



License Input
Please enter license(s) keys in each relevant section below. Multiple license keys should be separated by commas.

Product Keys(s)

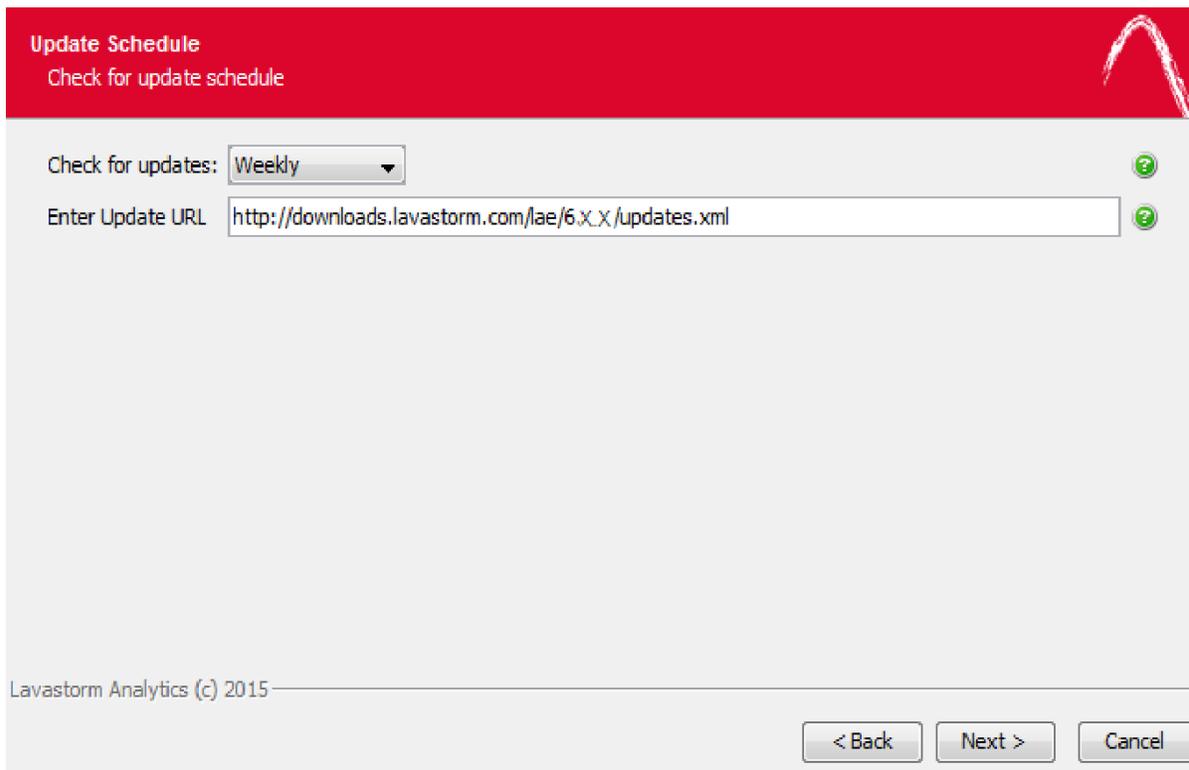
Node License Key(s)

Lavastorm Analytics (c) 2015

< Back Next > Cancel

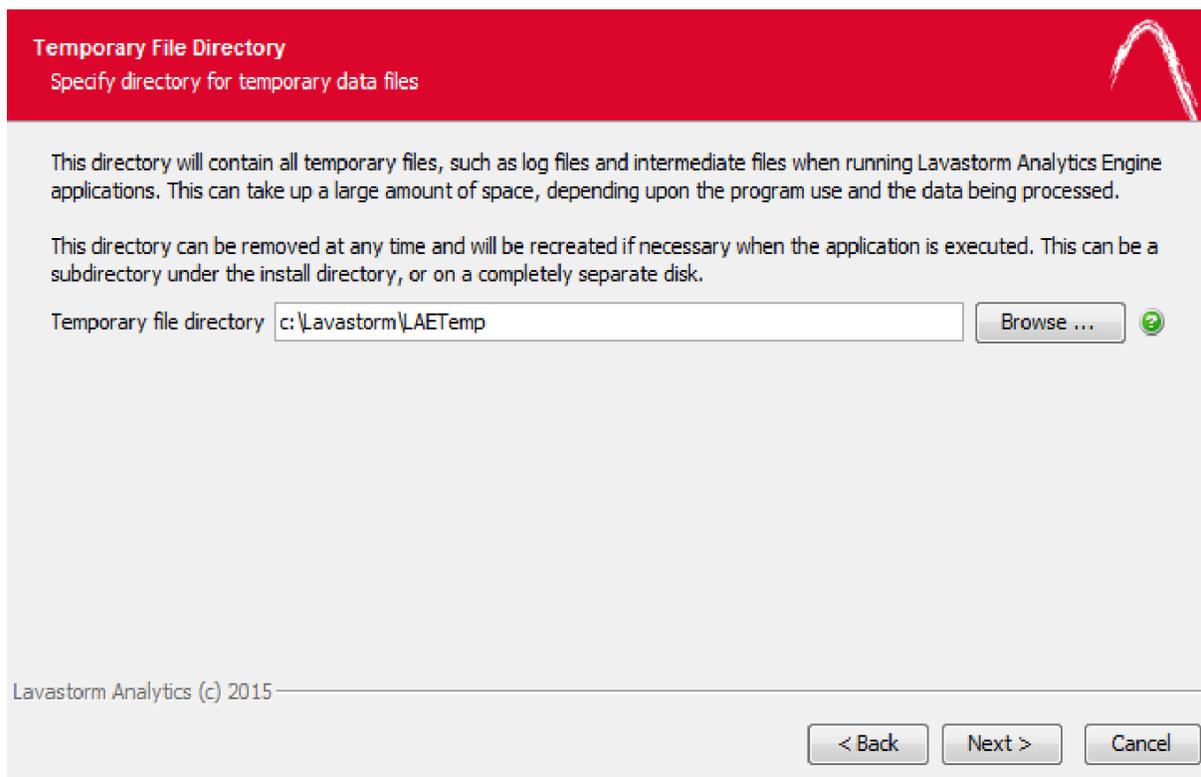
1. Enter the desired product and node license keys. If entering more than one key per field, separate the keys with commas. Click **Next**.

» An **Update Schedule** window appears:



2. Select the desired interval for LAE to automatically check for software updates.

» A **Temporary File Directory** window appears:

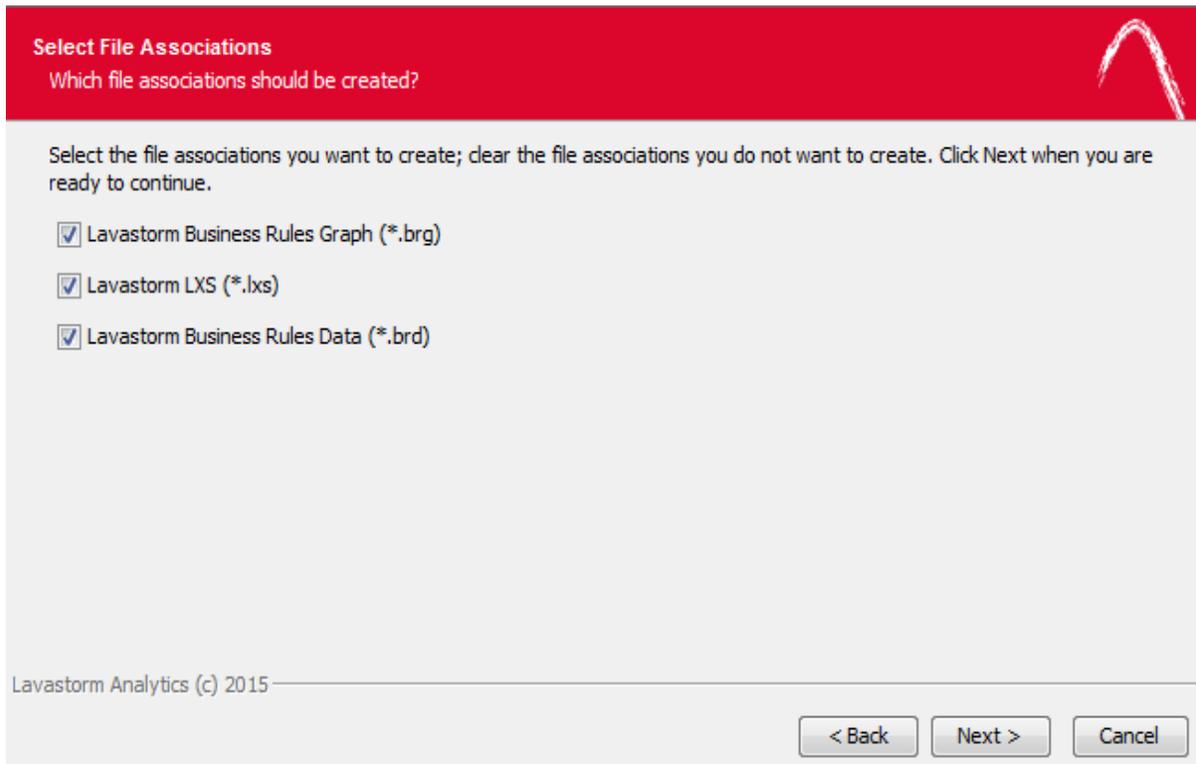


3. Accept the default setting or modify it to specify a different location for the LAE temporary directory.



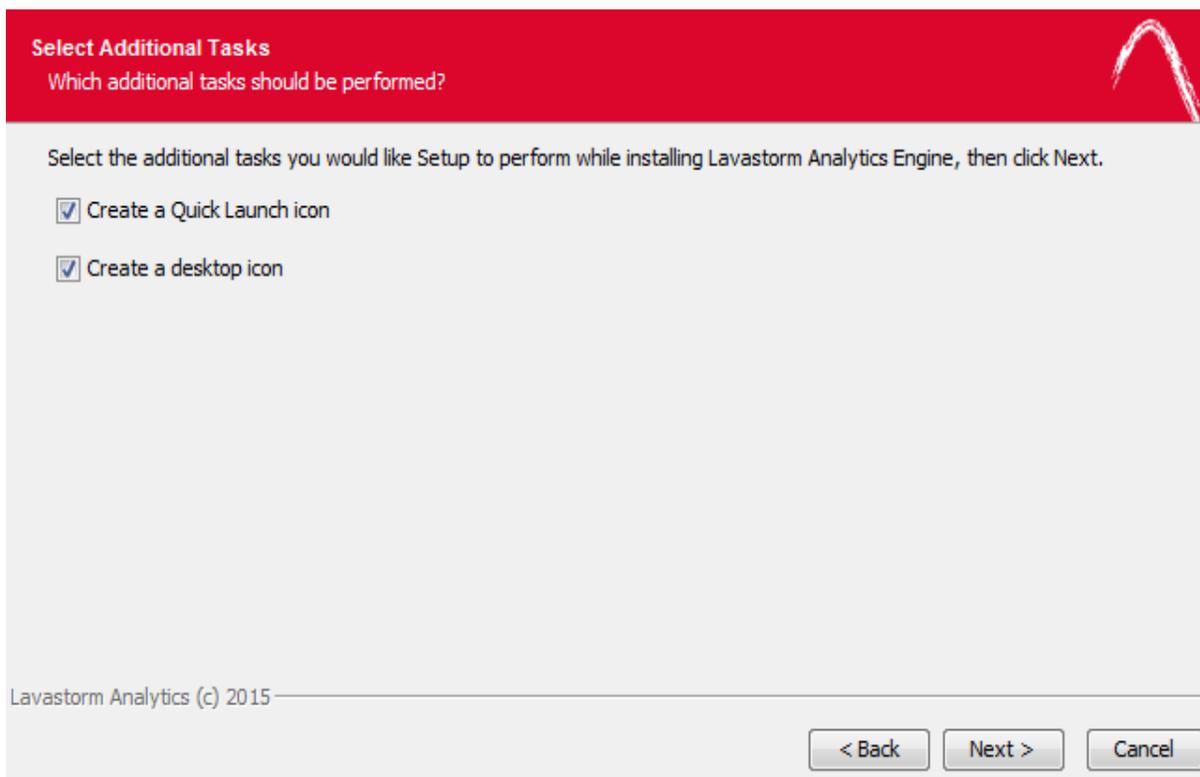
Note: This directory could get very large because this is where LAE keeps all of the data on every pin in a graph when the graph executes. Ensure that the temporary directory that you choose has enough space for this.

» A **Select File Associations** window appears:



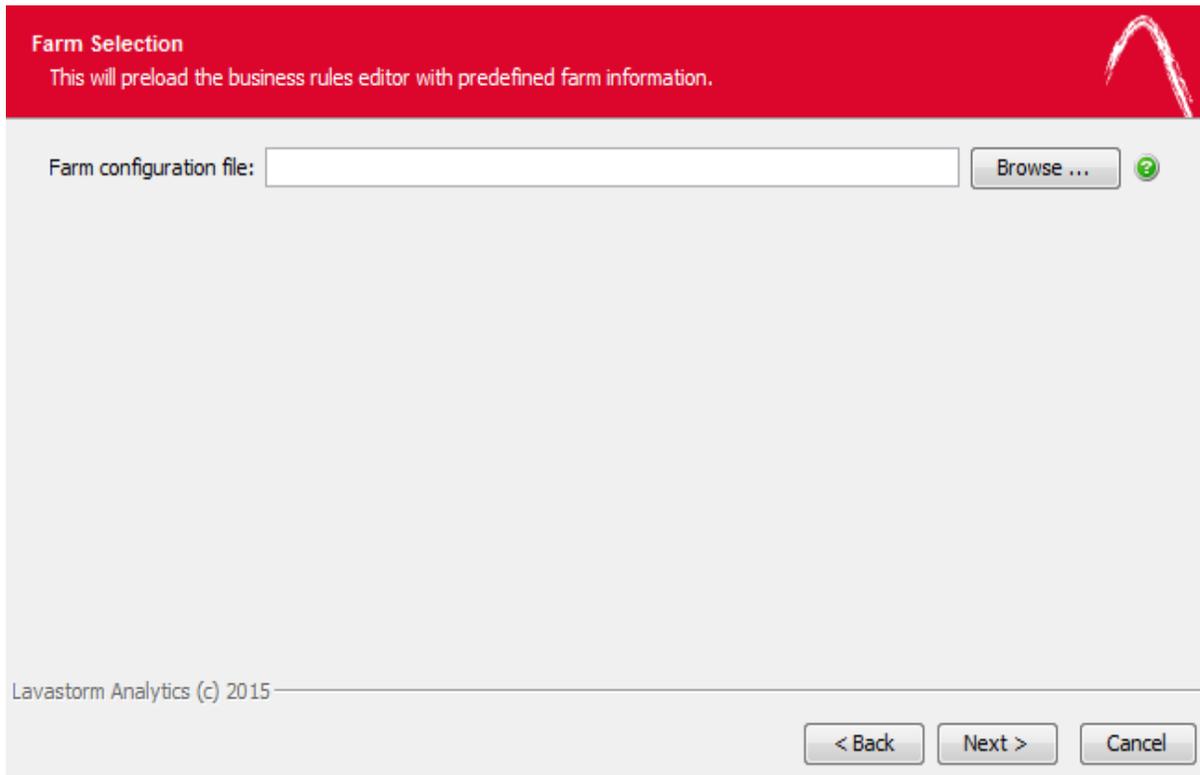
4. Accept the default setting to ensure that all LAE-related files are associated with the new software installation.

» A **Select Additional Tasks** window appears:



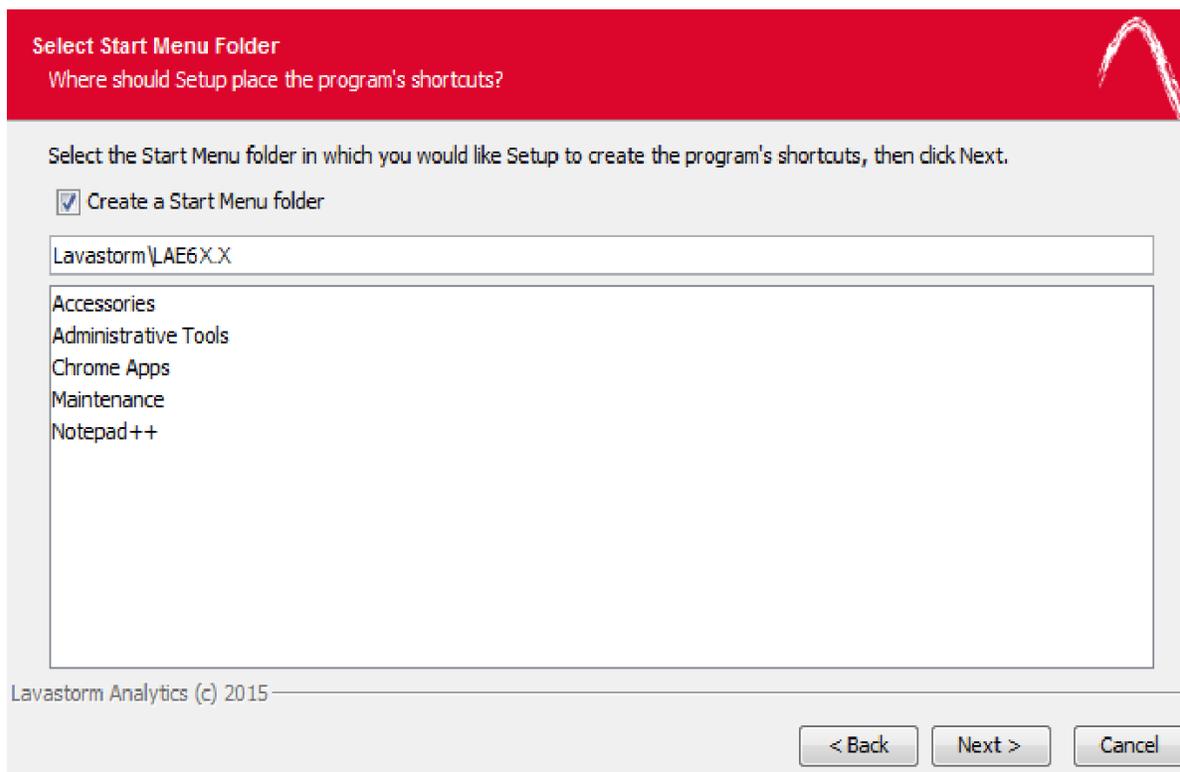
5. Specify whether you would like to create Quick Launch and desktop icons for LAE.

» A **Farm Selection** window appears:



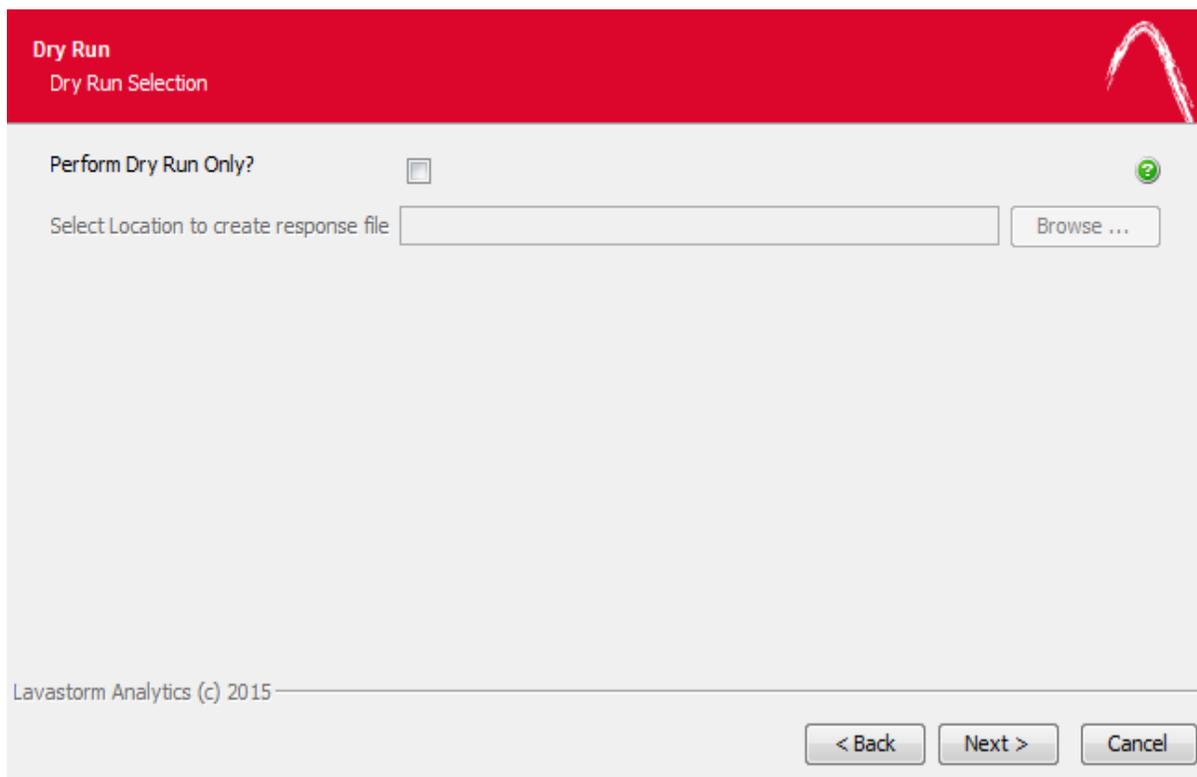
6. If you would like to specify your server farm configuration at the time of install, create an XML file using the format specified in the section on [Farm configuration file format](#).

» A **Select Start Menu Folder** window appears:



7. Accept the default setting, or modify it to specify a different location for the LAE shortcuts.

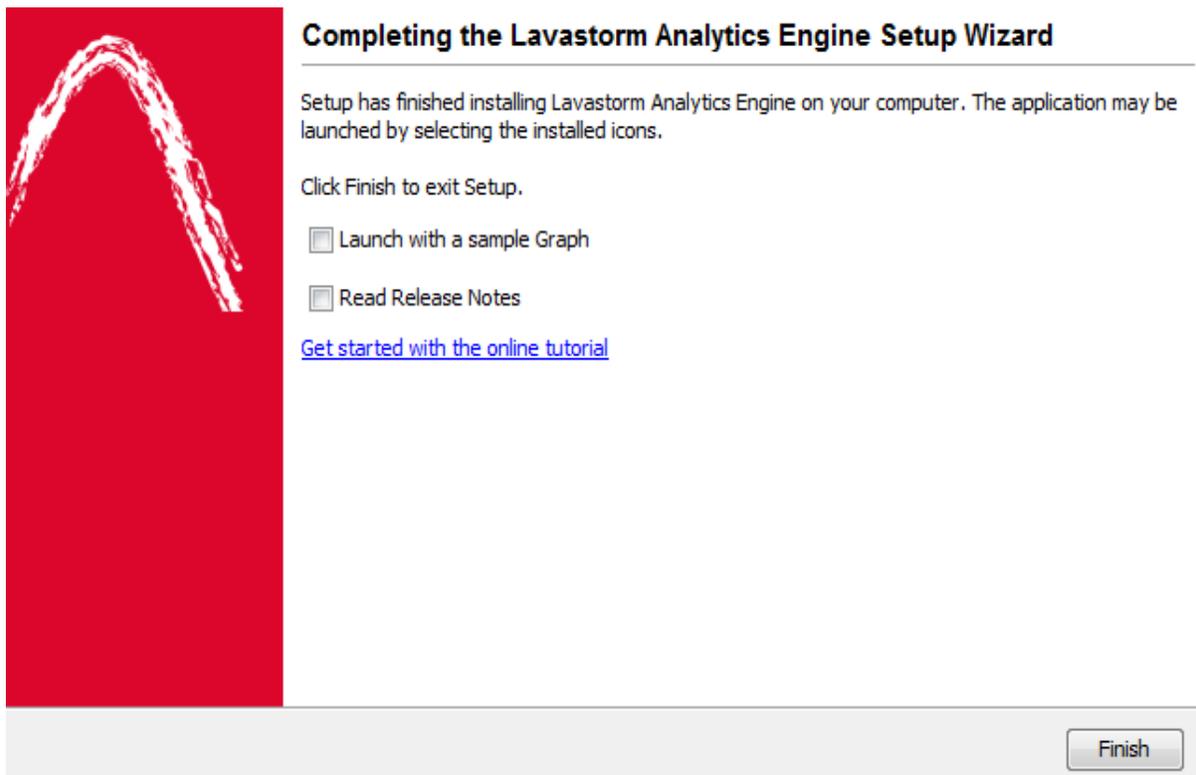
» A **Dry Run** window appears:



8. If you only need to generate a response file for performing unattended installations on other machines and do not wish to install the software on your current machine, select the **Perform Dry Run Only** check box and specify a location for the response file to be created.

If you do wish to install the software on your current machine, simply click **Next** to start the installer.

» When the installer finishes, it displays one final window:



9. Select or clear the **Launch with a sample Graph** and **Read Release Notes** check boxes according to your preferences, and click the **Finish** button to complete the installation.



Note: The LAE installation does not delete the `bre.ini` file if you had earlier versions of the software previously installed on your machine. You must open BRE and update your preferences accordingly for the new installation.

4. Unattended installation (silent install)

An unattended installation applies predefined settings of the installer without any user interaction. This enables IT managers to install the software silently on user machines.

If you want to install the Lavastorm Desktop Client on a large number of computers but you need to change the default values of some settings (like the installation directory, whether a desktop icon or a quick launch shortcut is created, the file associations created in the operating system, the name of the program group on the Start menu, and so on), use a special settings file which specifies the new values for these settings.

 **Note:** The exact process for delivering the install is not discussed in this document, as this is usually dependent on the specific software delivery mechanism chosen by your IT department.

4.1 Command line syntax

1. The silent installation makes use of the following Windows command line syntax:
`Lavastorm_Analytics_Engine<version>-Desktop.exe -q -overwrite -varfile <<optional response file name.varfile>>`
2. If you wish to install the software using only the default settings of the standard installation, no response file is required, and you can omit the response file's name from your command.
3. If you wish to deviate from a standard install, a response file can be supplied to override the defaults. This response file can be generated using the Advanced install flow detailed in the [Advanced installation](#) section or manually as detailed in the [Generating a response file](#) section.
4. If the response file is located in the same directory as the installer and has the same name as the installer, the response file name does not need to be supplied in the install command, as it will be picked up automatically by the installer. For example, if your response file is named `Lavastorm_Analytics_Engine<version>-Desktop.varfile`, you would not need to append it in the above example syntax.

 **Note:** Particular care should be taken when performing a silent install to ensure that no response file already exists in the directory where the install is to be run, as that varfile will be picked up automatically by the installer and may result in unexpected behaviour.

4.2 Generating a response file

A response file can either be created manually or by performing a normal attended test installation.

When the installation is completed, a file called `response.varfile` containing your selected options is created in the installation folder, by default `C:\Program Files (x86)\Lavastorm\LAE<version>\.install4j` on Windows.

4.3 Common varfile variables

Detailed in the following table are the standard variables which can be found in or added to a response file.

Parameter	Description
<code>sys.programGroupDisabled\$Boolean</code>	Indicates whether an entry should be added to the start menu. If not present, then no entry will be added.
<code>sys.installationDir</code>	Installation directory for LAE. EXAMPLE: <code>sys.installationDir=C:\\ProgramFiles\\<version>\\LAEX.X</code> will install LAE into the <code>C:\ProgramFiles\<version>\LAEX.X</code> directory. If not present, then the default or the last install directory will be used.
<code>sys.languageId</code>	Set the language for LAE client. EXAMPLE: <code>sys.languageId=en</code> Will set the language to English. Currently, only English is supported.
<code>readLaeDesktopNotes\$Boolean</code>	Boolean indicating whether to display the LAE Desktop installation notes upon completion of installation. EXAMPLE: <code>readLaeDesktopNotes\$Boolean=true</code>

Parameter	Description
	<p>Will display the installation notes.</p> <p>This should always be set to false for unattended installs. The installer will ignore this if set to true on an unattended install.</p>
laeHome	<p>LAE Home directory location.</p> <p>EXAMPLE: <code>laeHome=D\:/Install_Test_Z/<version>/LAEX.X</code> will install LAE into the D:\Install_Test_Z\<version>\LAEX.X directory.</p>
lalUpdateUrl	<p>Location of the LAL update server.</p> <p>EXAMPLE: <code>lalUpdateUrl=http\://downloads.lavastorm.com/lal/<version>/updates.xml</code></p>
sys.component.installLal\$Boolean	<p>Boolean indicating whether to install LAL.</p> <p>EXAMPLE: <code>sys.component.installLal\$Boolean=false</code></p>
startLaeServer\$Boolean	<p>Boolean indicating whether to start the LAE Server. This should be set to false for all LAE desktop installations.</p> <p>EXAMPLE: <code>startLaeServer\$Boolean=false</code></p>
laePublicDocumentsDir	<p>Directory where the installations and other shared notes are to be installed to.</p> <p>EXAMPLE: <code>laePublicDocumentsDir=C\:\\Users\\Public\\Documents</code></p>
createQuicklaunchIconAction\$Boolean	<p>Boolean indicating as to whether a quick launch icon will be created.</p> <p>EXAMPLE: <code>createQuicklaunchIconAction\$Boolean=true</code></p>
sys.fileAssociation.launchers\$\$stringArray	<p>System variable identifying value file types.</p> <p>This should always be the following:</p>

Parameter	Description
	<code>sys.fileAssociation.launchers\$StringArray="3398", "3398", "4318"</code>
<code>startLaeDesktop\$Boolean</code>	<p>Boolean indicating whether the desktop application should be started upon installation completion.</p> <p>EXAMPLE:</p> <pre>startLaeDesktop\$Boolean=true</pre>
<code>sys.component.installLaeDesktop\$Boolean</code>	<p>Boolean indicating if an LAE Start Menu item should be created. This will apply for all users.</p> <p>EXAMPLE:</p> <pre>sys.component.installLaeDesktop\$Boolean=true</pre>
<code>startLaeWebApplication\$Boolean</code>	<p>Boolean indicating if the LAE Web Application should be started</p> <p>This should always be set as detailed below:</p> <pre>startLaeWebApplication\$Boolean=false</pre>
<code>sys.programGroupName</code>	<p>Windows group name.</p> <p>EXAMPLE:</p> <pre>sys.programGroupName=Lavastorm\\LAE<version></pre>
<code>laeHomeBreBackSlash</code>	<p>LAE Internal parameter.</p> <p>EXAMPLE:</p> <pre>laeHomeBreBackSlash=D:\\:\\:\\\\Install_Test_Z\\:\\:\\\\<version>\\:\\:\\LAE<version></pre> <p>This should be the same as the <code>laeHome</code> variable, but with extra backslashes.</p>
<code>sys.programGroupAllUsers\$Boolean</code>	<p>System parameter indicating if this installation is for the current user or all users.</p> <p>EXAMPLE:</p> <pre>sys.programGroupAllUsers\$Boolean=false</pre>
<code>laeScratchDirectory</code>	<p>Parameter indicating where the LAE scratch directory is located.</p> <p>EXAMPLE:</p> <pre>laeScratchDirectory=D\\:\\lavastorm_123\\temp</pre> <p>If this isn't supplied then the default or current install will be assumed.</p>
<code>createDesktopLinkAction\$Boolean</code>	<p>Boolean indicating if a desktop link should be created.</p>

Parameter	Description
ean	<p>EXAMPLE:</p> <pre>createDesktopLinkAction\$Boolean=true</pre> <p>This should be set to true.</p>
laeUpdateUrl	<p>Location of the LAE update server. This can be either the Lavastorm update server, or an internal web container.</p> <p>EXAMPLE:</p> <pre>laeUpdateUrl=http\://downloads.lavastorm.com/lae/<version>/updates.xml</pre>
sys.adminRights\$Boolean	<p>Boolean indicating if Administrator rights are required.</p> <p>This should always be set as below:</p> <pre>sys.adminRights\$Boolean=true</pre>
sys.fileAssociation.extensions\$StringArray	<p>System value indicating the file extension to be associated with LAE.</p> <p>This should always be set as below:</p> <pre>sys.fileAssociation.extensions\$StringArray="brg", "lxs", "brd"</pre>
laeDesktopInstallType	<p>Integer indicating if this is a basic or advanced install. Acceptable parameters are 0 and 1, where 0 = basic and 1 = advanced.</p> <p>Should be used in conjunction with the <code>laeEnterpriseInstall\$Boolean</code>.</p>
laeEnterpriseInstall\$Boolean	<p>Boolean indicating if the install is advanced.</p> <p>Should be set to true if the install is advanced.</p>
laeFarmFileLocation	<p>Location of the XML file to set default for farm configuration. See Farm configuration file format for details of the file format.</p> <p>This must be accessible from all machines. This is a feature of the advanced install.</p>
laeUpdateFrequency	<p>This is the frequency for which LAE should check for updates. It is recommended that this is set to Never for enterprise installs.</p> <p>Other acceptable entries are: Start, Monthly, Weekly, and Daily</p>

Parameter	Description
laeLicenseKeys	<p>Allows for the automatic application of a license key when performing a silent install.</p> <p>EXAMPLE: <code>laeLicenseKeys =ABCDE-FGHIJ-KLMNO-PQRST</code> will generate a license file and activate the license key.</p> <p>Multiple keys should be separated by commas.</p>
laeNodeLicenseKeys	<p>Similar to above, but will activate node licenses.</p> <p>Multiple keys should be separated by commas.</p>

All examples are syntactically correct and the position / & \ should be adhered to when generating the response.varfile the entry.

4.4 Farm configuration file format

The farm configuration XML file for the Advanced and unattended installations should be in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<config>
  <farms>
    <farm name='test_red_stag' defaultPassword="welcome"
      defaultUser="admin" >
      <controller hostName='localhost' port='7721' userName='admin'
        password='welcome' schedulerType="streaming"
        useExternalController="FALSE" useLocalProperties="TRUE"/>
      <servers>
<server hostName='7MHZDS1.lavastorm.local.com' port='7721'
  userName='admin' password='welcome' numberOfThreads='2'/>
      </servers>
    </farm>
  </farms>
</config>
```

5. Uninstalling LAE on Windows

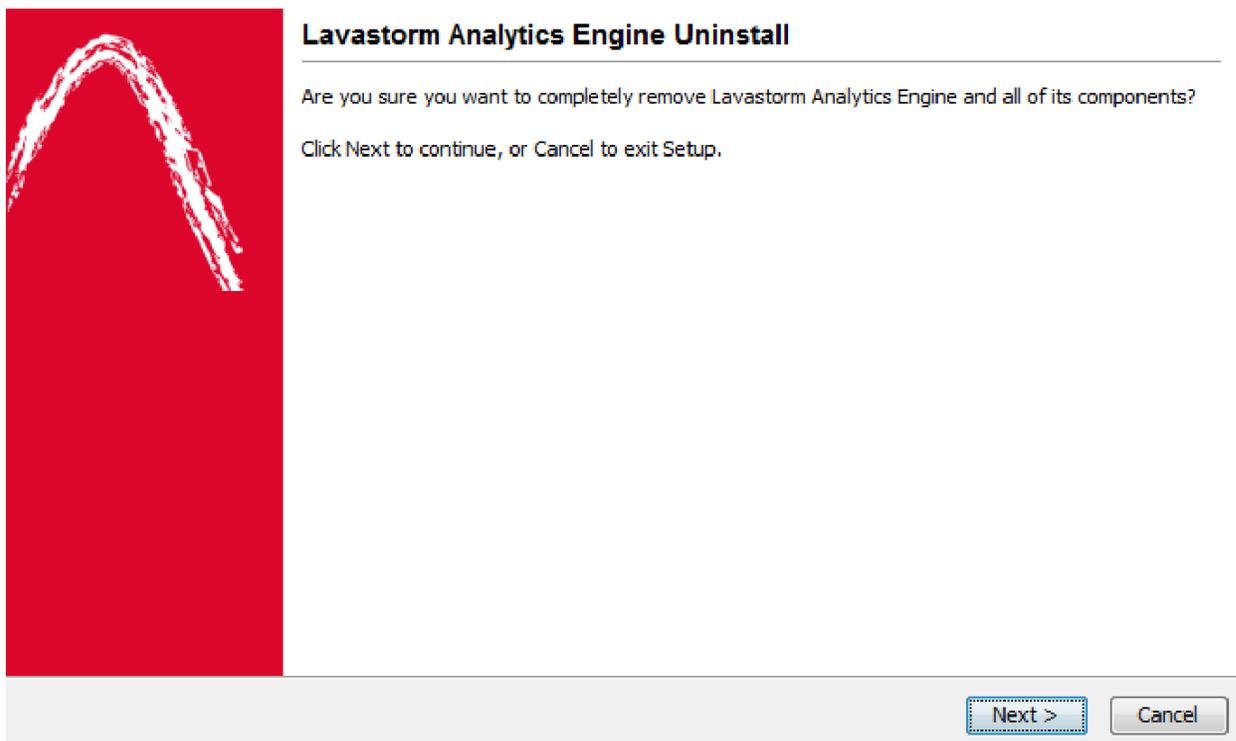
Notes about the uninstallation process:

- If you plan to install a new version of LAE on your machine after uninstalling the current one, and if you have made any modifications to the files in the Lavastorm installation, back up those files so that you can restore them after installing the new version.
- The uninstall program for LAE does not remove LAE graphs that you have created.

To uninstall LAE:

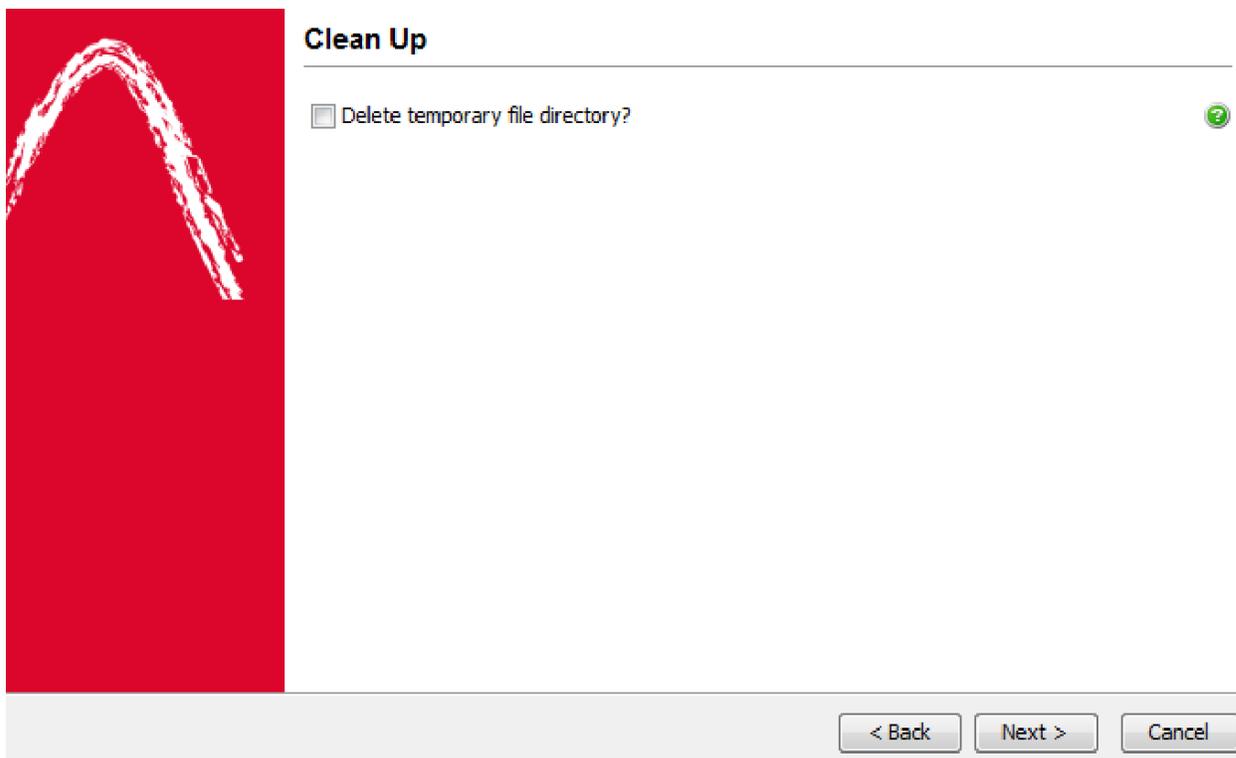
1. Check in the system tray to see if the Lavastorm Console (the Desktop LAE Server) is running. If it is, shut it down before continuing with the uninstallation process.
2. From the Windows Start menu, navigate to the location of LAE that you specified during installation; the default is `Lavastorm/LAE<version>`.
3. Open the `LAE<version>` folder and double-click **uninstall**.

» The **Lavastorm Analytics Engine Uninstall** window opens:



4. Click **Next** to launch the uninstall program.

» A **Clean Up** window opens:



5. Select the check box if you would like to delete the temporary file directory.
6. Click **Next** to perform the uninstallation.
 - » A final Lavastorm Analytics Engine Uninstall window opens to confirm that the uninstallation is complete.
7. Click **Finish**.

6. Unattended uninstall (silent install) instructions – Windows

6.1 Command line syntax

The instruction for uninstalling the software requires an understanding of Windows PowerShell to correctly uninstall the software.

1. First open PowerShell on the target machine, or pointing at the target machine.

This should be running as Administrator, or the install will fail.

2. Enter the following command.

```
$test = Get-ItemProperty -Path HKLM:HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall\zzz
```

where zzz is the version of LAE, for example "LAE6.1.1". It should be noted that this contains "LAE" as a prefix.

3. Enter the following commands

```
$test = $test.UninstallString
```

```
$uninstallString -replace "'", ""
```

```
$arg1 = "-q"
```

```
&$test $arg1
```

» The application will now uninstall

7. Appendix: How to configure multiple BRE versions

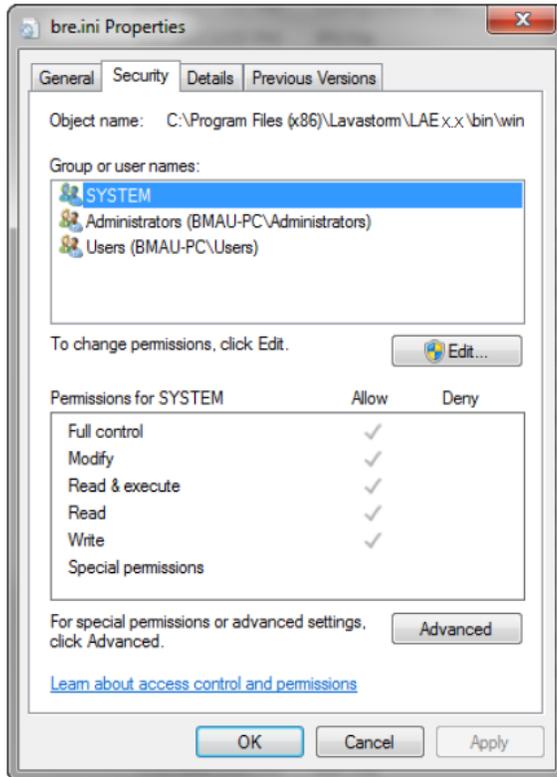
It is sometimes necessary or desirable to have two versions of BRE running on the same PC. This chapter describes the extra steps necessary to configure this.

7.1 Different *bre.ini* for each BRE version

The *bre.ini* file contains, among other things, the connection information for the LAE Server that BRE connects to. BRE must have the same version as the LAE server, so two different versions of BRE will require two separate *bre.ini* files, each pointing to a different LAE Server. The steps below walk through setting this all up.

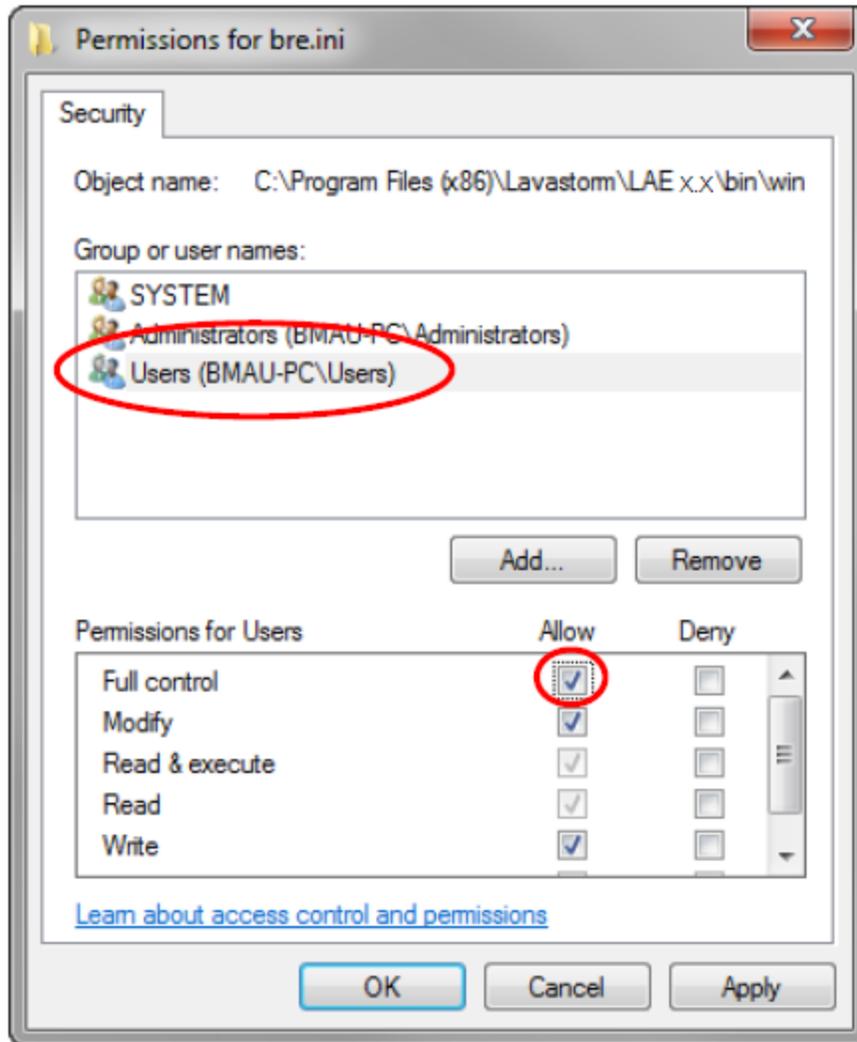
1. Before installing the new version of BRE, save a backup copy of the existing *bre.ini* file.
2. Move the *bre.ini* files from the current user location (as described in the Background section below) to the directory where *bre.exe* is located. Windows 7 and 8 users would need to move it from `C:\users\\AppData\Roaming\Lavastorm\LAE<version>` to:
`<InstallDir>\bin\windows-x86-32`
3. In Windows 7 and 8, modify the security on the newly copied *bre.ini* file so that BRE can update it.
 - a. In Windows Explorer, right click the *bre.ini* and choose **Properties**. In the window that appears, navigate to the **Security** tab.

» It should look something like this:



- b. Click the **Edit** button.
 - »A new window appears.
- c. Click the user's name, then select the **Full Control** check box.
- d. Click **Apply**.

» It should look something like this when completed:



4. Click **OK** on the two windows that are open.

5. Install the new version of LAE.

It is best to modify the default install directory recommended during the install to include the full LAE version.

EXAMPLE:

C:\Program Files (x86)\Lavastorm\LAE<version>.

6. As with the first *bre.ini* file, move the newly installed *bre.ini* away from the user location to the directory where *bre.exe* is located. Windows 7 users would need to move it from *C:\users\<username>\AppData\Roaming\Lavastorm\LAE<version>*

To:

`<InstallDir>\bin\windows-x86-32`

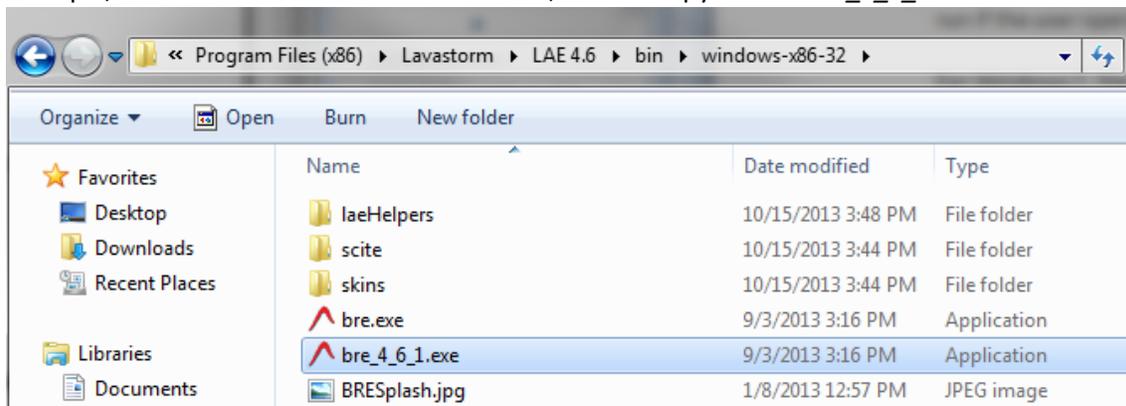
7. For Windows 7 and 8 installations, as with the first *bre.ini* file, modify the security on the new *bre.ini* so that BRE can access it.

7.2 Specify the version of BRE to launch LAE graphs

With two versions of BRE installed, there is a choice to be made about which version of BRE should run if the user opens (for example, double-clicks) a *.brg* file (an LAE graph) in Windows Explorer.

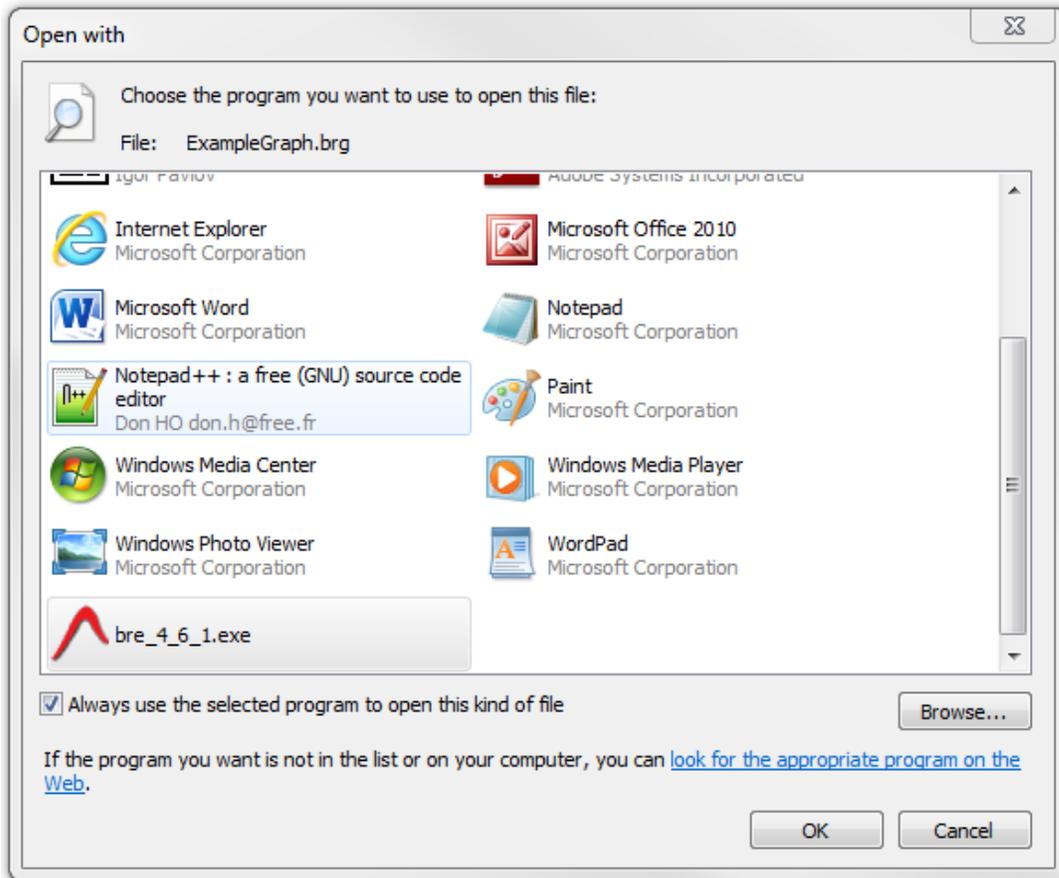
For Windows 7 and 8, the steps to set up the file association for *.brg* files are:

1. For the earlier version of BRE, locate the `<InstallDir>\bin\windows-x86-32` folder for that version and make a copy of the *bre.exe* in that same directory. Name the copy with the version it represents. For example, if the earlier version of BRE was 4.6.1, make a copy named *bre_4_6_1.exe*.



2. Find a *.brg* file, right click it and choose **Open with -> Choose default program....**
3. In the window that appears, click **Browse** and find the copy of *bre.exe* that was modified with the version number (in the example, this would be *bre_4_6_1.exe*). Select it and click **Open**.

» In the **Other Programs** section of the **Open with** window you should now be able to see an icon for the version that you want to execute.



Note whether the **Always use the selected program to open this kind of file** check box is selected or not. If it is selected, then Windows Explorer will use the older version by default; if this check box is not selected, Windows will offer this version of BRE as an option appearing in the menu when a user right clicks on a `.brg` file and chooses **Open with**.

4. Click **OK**.
5. Repeat steps (1) through (5) for the newer version of BRE.

 **Note:** There can be at most one default version specified by the **Always use the selected program to open this kind of file** check box: either the older version or the newer one.

6. Check to make sure that all is set up correctly:
 - a. Select a `.brg` file and ensure that both versions are available in the right-click menu under **Open with**.
 - b. Double-click a `.brg` file and see which version of LAE runs by default.

7.3 Which *bre.ini* does BRE use?

Windows 7 and 8

Under Windows 7 and 8, when BRE is starting up, it looks for the *bre.ini* file in the following way:

1. BRE looks first in the `<InstallDir>\bin\windows-x86-32` folder; if BRE finds a *bre.ini* file there, it uses it.
2. Otherwise, BRE looks in the user's `C:\Users\%username%\AppData\Roaming\Lavastorm` folder; if BRE finds a *bre.ini* file there, it uses it.
3. Otherwise, BRE looks in `C:\Users\All Users\Lavastorm`; if BRE finds a *bre.ini* file there, it creates a new *bre.ini* in the current user's `C:\users\<username>\AppData\Roaming\Lavastorm\LAE<version>` folder and copies values from the first *bre.ini* into the new one, and uses the new one. Note that BRE does not modify the `C:\Users\All Users\Lavastorm` folder.
4. Otherwise, BRE creates a default *bre.ini* file in the user's `C:\Users\%username%\AppData\Roaming\Lavastorm` folder.

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