

STRmix™
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<http://STRmix.com>

STRmix™
2.8 Installation Manual

STRmix™ V2.8 Installation Manual
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1. STRmix™ V2.8 Software Installation

1.1 System requirements

The following are the hardware and software specifications to run STRmix™:

Hardware

Low spec ¹	Medium spec ²	High spec ³
Intel core 2 (Quad core) processor	Intel i5, i7 2.6 GHz	Intel 2.4 GHz Xeon CPU E5 or better ⁴
4 GB RAM	16 GB RAM	128 GB RAM or above
Minimum of 2 cores	Minimum of 4 cores	Minimum of 8 cores
300MB free HDD space ⁵	300MB free HDD space ⁵	300MB free HDD space ⁵
Windows 10 64-bit or above	Windows 10 Professional 64 bit or above	Windows 10 Professional 64 bit or above

¹will run most 1, 2 and some 3 person mixtures, particularly in low memory mode, may also run some 4 person cases.

²will run most 1, 2, 3 and 4 person mixtures, particularly in low memory mode.

³will run most 1, 2, 3, 4 person mixtures (including with replicates) and some 5 person mixtures (including with replicates).

⁴consult with NicheVision/ESR on particular models if concerned.

⁵this is the space required for the application itself and does not include the space required for results of STRmix™ runs.

Software

Operating System: Windows 10 64-bit recommended.

To determine detailed information about your system:

Step	Action
1	Select Start > Run . Enter MSINFO32.EXE and select Enter
2	Locate your Operating System under 'OS Name' and the type of system under 'System Type'.
3	Locate your processor type under 'Processor' and the amount of memory under 'Installed Physical Memory (RAM)'. Close MSINFO
4	Open My Computer. Locate the drive on which to install STRmix™. Right Click the drive and select Properties . Ensure that there is a least 300MB free on the drive.

Notes

As with all changes to your system, it is recommended that a backup is created before installing or removing this software.

STRmix™ can be installed under a standard user account.

STRmix™ can only be installed on 64-bit operating systems.

1.2 Existing users - uninstallation of STRmix™ Advanced Report plugin

The reporting module is built-in to STRmix™ from version 2.5.11 onwards. This means that plugins are no longer needed to run reports.

To avoid error messages, please uninstall the STRmix™ Advanced Report plugin from your STRmix™ installation. Details on how to do this can be found at <http://support.strmix.com/solution/articles/1000251533-how-do-i-uninstall-my-old-advanced-report->

1.3 Existing standalone users – uninstallation of floating licence server

Installation of STRmix™ v2.8 will uninstall previous standalone installations that use L4J Floating Licence Server Management (most commonly STRmix™ v2.4 series and v2.5.11 standalone installations). Therefore it is safe, and recommended, to uninstall the Floating License Server program.

1.4 Updating Default.ini and Report defaults.xml

After installation of STRmix™ v2.8, you may be asked if you want to Confirm or Revert changes to the Default.ini, Report defaults.xml and two Identifier kits. **Select Confirm in order for V2.8 to use the updated and developmentally validated default settings.** Note the changes to the Identifier kits were due to the removal of the drop-in parameters.

1.5 STRmix™ installation

Warning: Installation of STRmix™ v2.8 will uninstall your previous version of STRmix™, so please ensure that you only install STRmix™ v2.8 when you are ready to use it.

Download the STRmix™ installer using the link that has been emailed to you.

On each PC that will run STRmix™, click the STRmix™ Installer to start the STRmix™ installation process. The STRmix™ Setup Wizard screen (Figure 1.1) will open.



Figure 1.1 STRmix™ Setup Wizard screen

Select **Next** to select the location to install STRmix™ (see Figure 1.2). The default settings will install STRmix™ on the local hard drive in the Program Files folder.

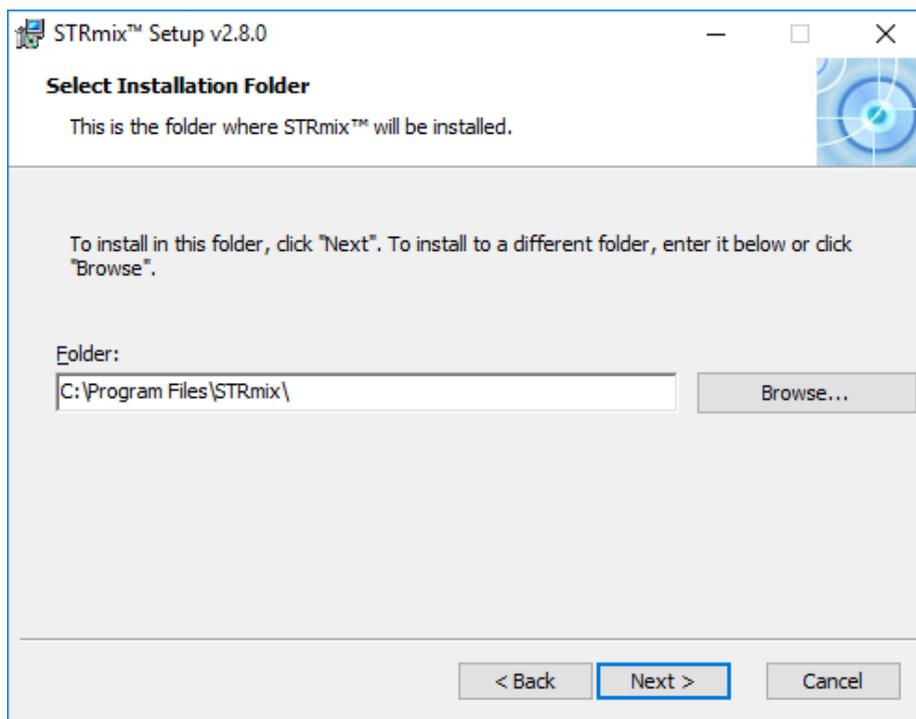


Figure 1.2 Select Installation Folder window

Select **Next** to open the Ready to Install window (Figure 1.3).

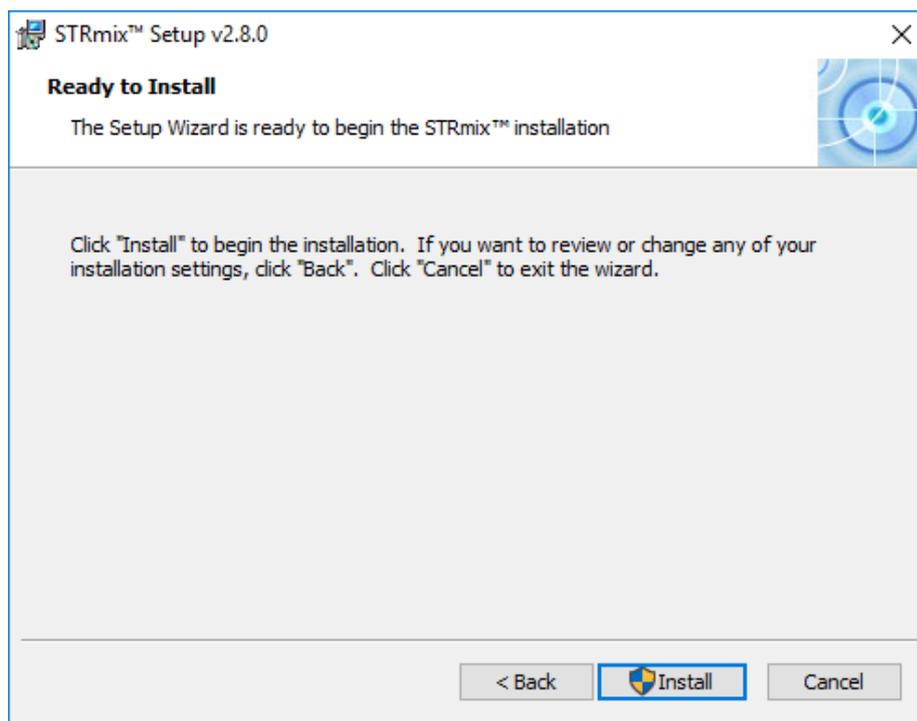


Figure 1.3 Ready to Install window

Select **Install** to install the application on your computer. At the completion of installation (Figure 1.4) select **Finish** to close the window.



Figure 1.4 Installation Complete window

Once complete, a STRmix™ menu entry will be available in your Start Menu. Inside this folder there will also be a 'STRmix Results' menu entry available, which will open the default STRmix™ results folder in the Windows File Explorer. STRmix™ configuration files

may be found under the 'ProgramData\STRmix' folder, which is also the default location for STRmix™ results. In Windows 10, the STRmix™ shortcuts are listed under all apps.

1.6 User activation of STRmix™ (first time and existing users)

1.6.1 Activation for installations on standalone PCs

When you first open STRmix™, the licence ID screen will open (Figure 1.5).

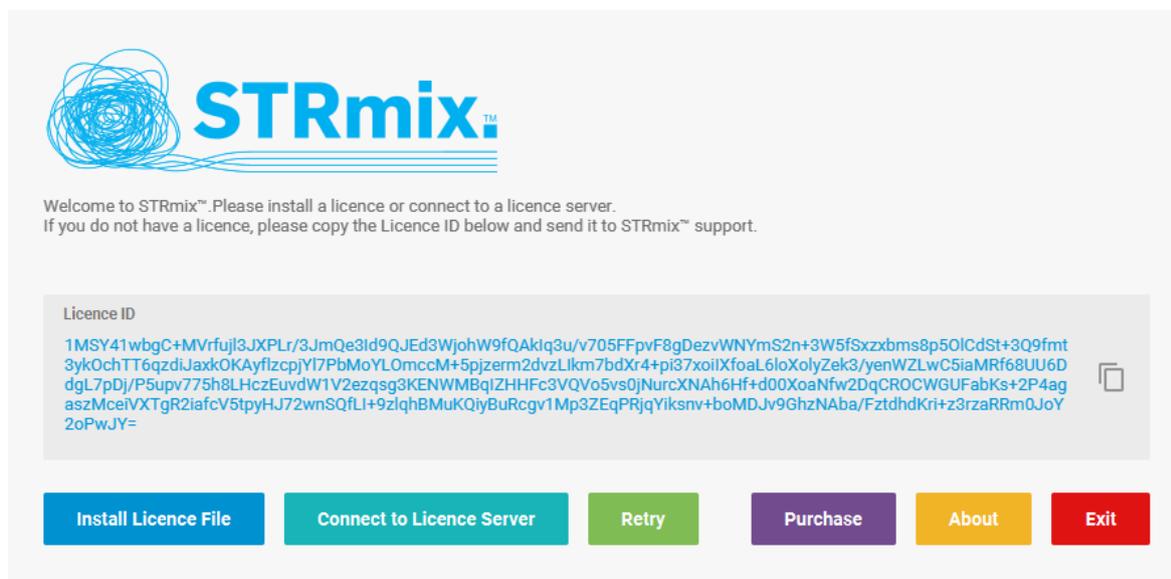


Figure 1.5 Licence ID screen

1. Copy the code that appears in the "Licence ID" box using the 'copy' icon or by selecting the text and then selecting CTRL + C on your keyboard
2. Email the Licence ID to support@strmix.com
3. You will receive a Licence File (.l4j format) back by email, which is specific for the standalone PC on which you have installed STRmix™. Save this file to your hard drive.
4. Select **Install Licence File**, navigate to the .l4j file you saved and select **Open**
5. A STRmix™ Licence Agreement or Amended Licence Wording will appear (Figure 1.6). Scroll to the bottom and click **Yes, I Accept** to complete the installation.
6. Proceed to Section 1.7 to Set administrator password.

Notes:

If you click **No, I Don't Accept**, your installation will cease.

When emailing the license ID code, please indicate whether it is for an Installed version of STRmix™ or an Evaluation version.

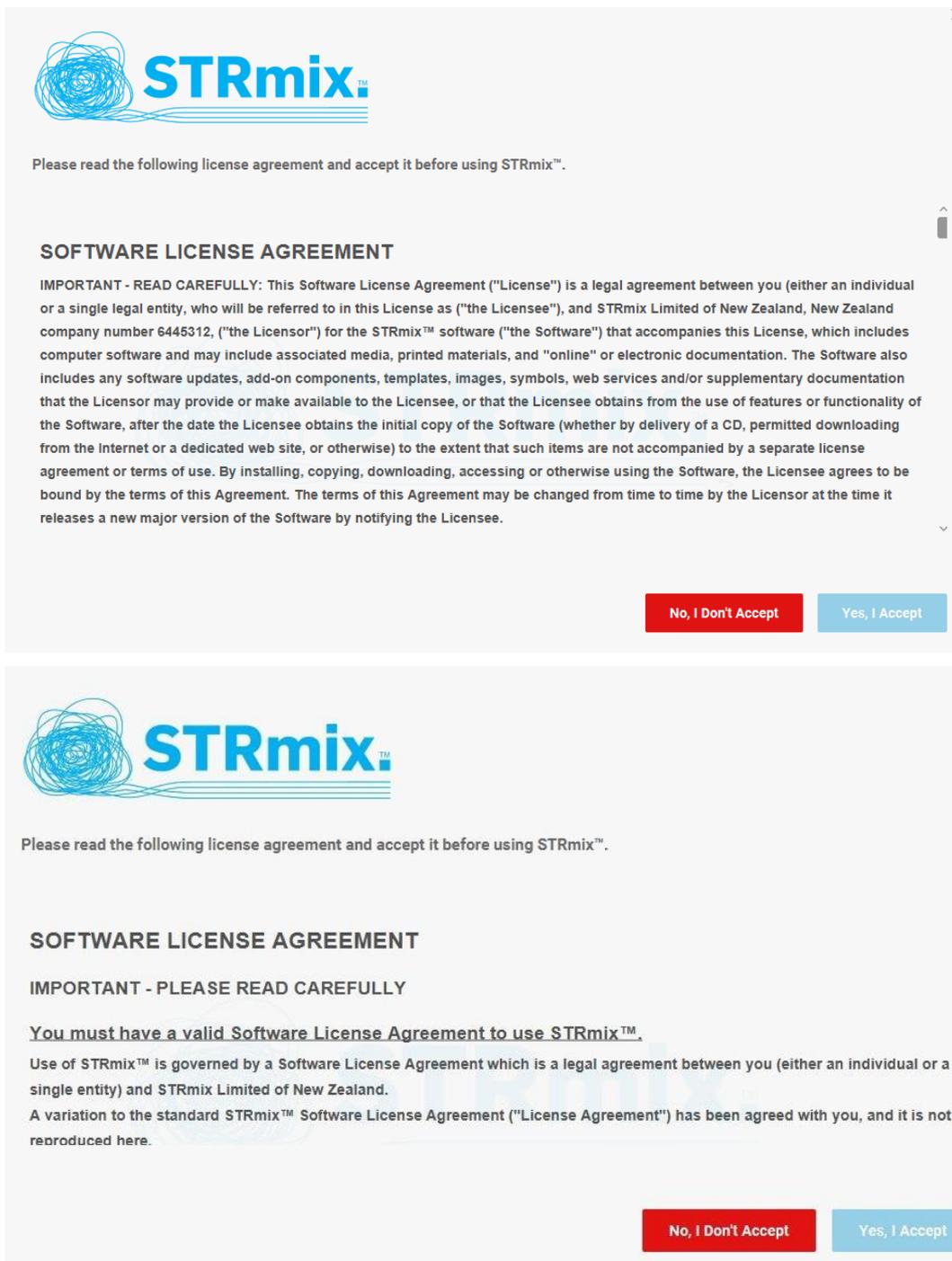


Figure 1.6 Licence Agreement and Amended Licence screens

1.6.2 Activation for server-based concurrent use installations

For server based installations, undertake the following steps on your server machine:

1. Download the "STRmix_ID_Generator.exe" file using the link provided.
2. Double click the "STRmix_ID_Generator.exe" file to run the STRmix ID Generator temporary setup.
3. Select **Install**. The installation will run, and then automatically run the STRmix ID generator (Figure 1.7).

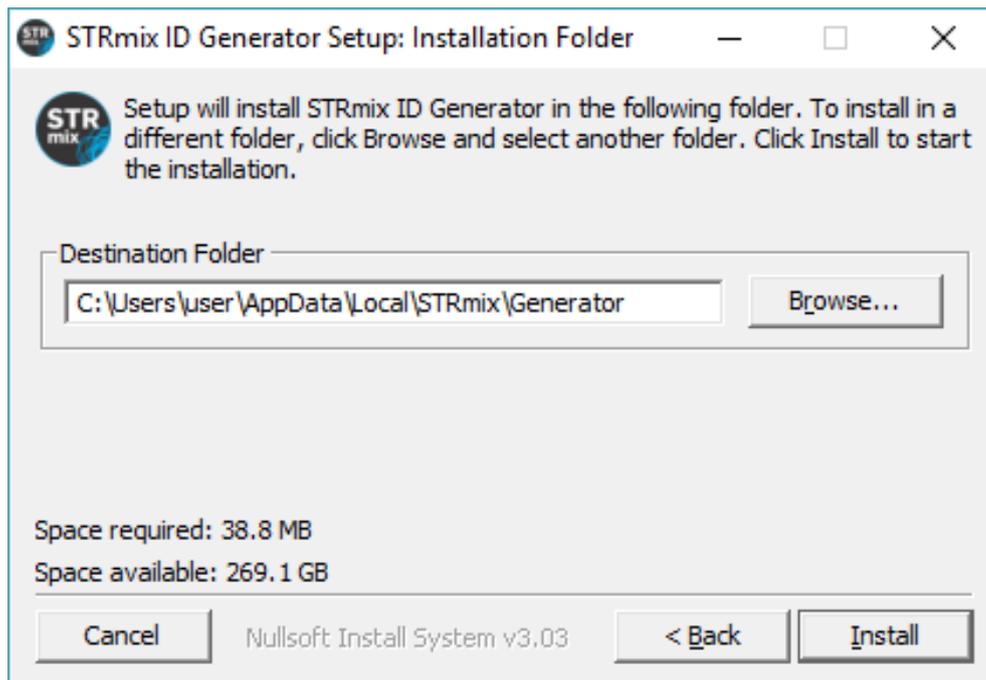


Figure 1.7 STRmix™ ID Generator screen

4. This will generate a Licence ID code. Copy it and email it to support@strmix.com to obtain your floating licence file.
5. Download the "Floating License Server 4.7.2.exe" using the link provided.
6. Double click the "Floating License Server 4.7.2.exe" to run the installation.
7. Complete the installation using the default steps (Figure 1.8).

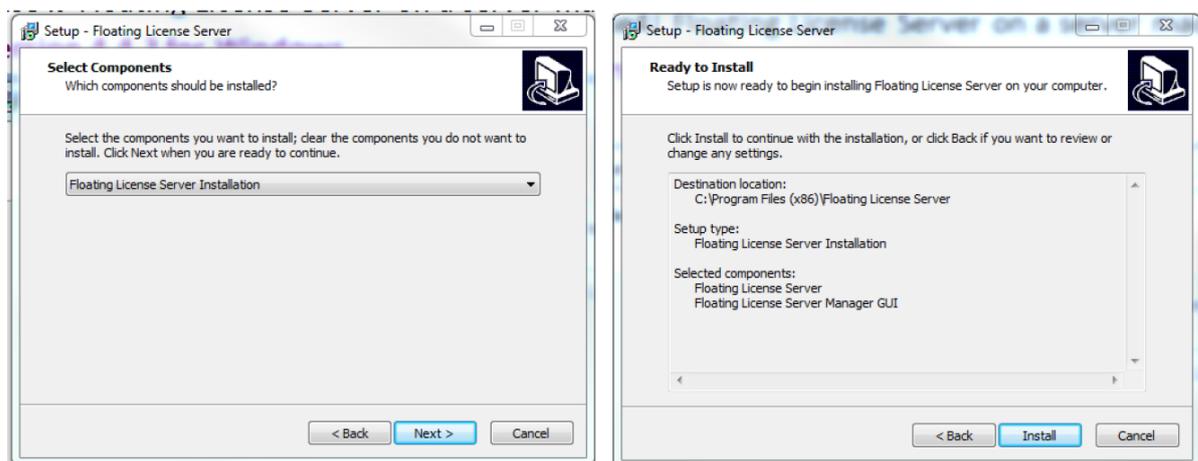


Figure 1.8 Installation screens for License Manager

8. Once installation is complete, run the "Floating License Server Management GUI" application from the Start menu.
9. Connect to the License Server using IP 127.0.0.1 and Port Number 16090 (Figure 1.9).

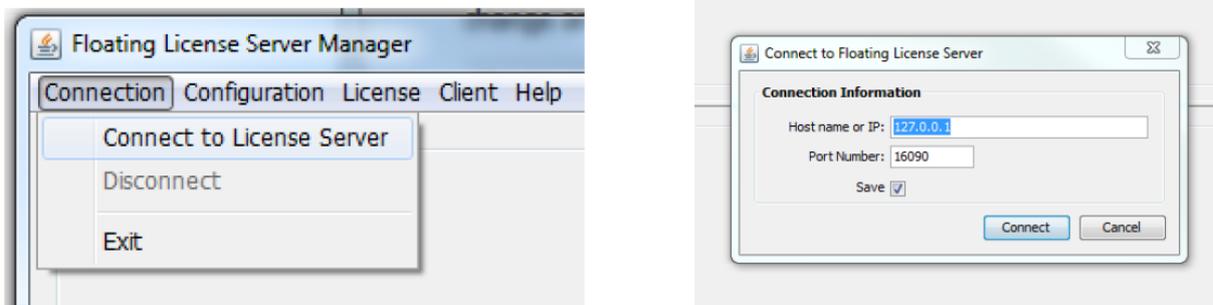


Figure 1.9 Connection screens

10. Install the floating licence by selecting **License > Install New License** and browse for the .l4j file emailed to you (Figure 1.10).

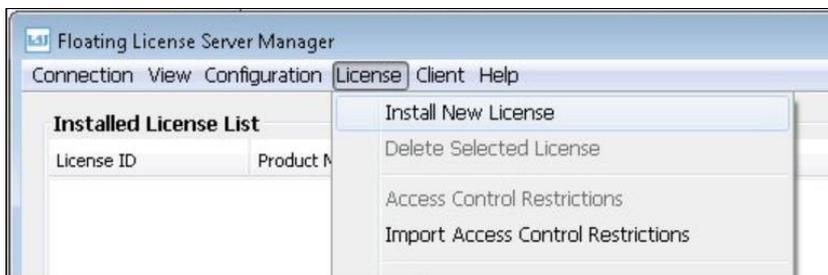


Figure 1.10 Installing a new licence into Floating License Server Manager

11. Open an inbound port through the firewall for connecting to STRmix™:
 [Steps below only for Server PC]
- a. From Windows Control panel run "Windows Firewall"
 - b. Select Advanced Settings
 - c. Under the inbound rule, create a new rule
 - d. Choose a port
 - e. Use 16090 as a port number
 - f. Name it a "Floating Server Port".

Please do the following on each PC that will run STRmix™:

1. Install STRmix™ using the instructions in Section 1.5 above
2. Run STRmix™
3. When you first open STRmix™ you will see Figure 1.11. Select **Connect to Licence Server**.

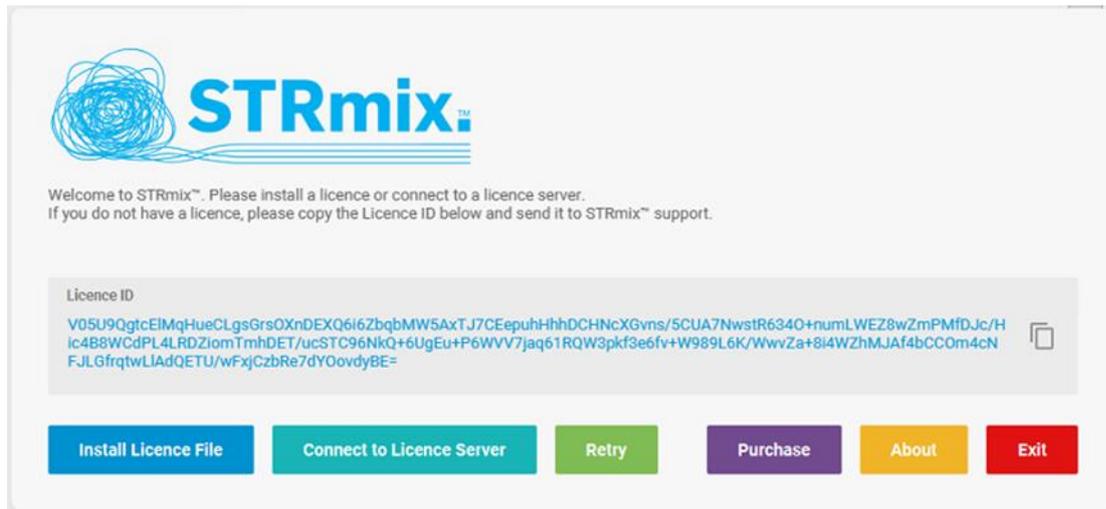


Figure 1.11 User Input screen

- For the Host Name enter the server PC's IPv4 Address (see further instructions below). For the Port Number enter 16090 (Figure 1.12).

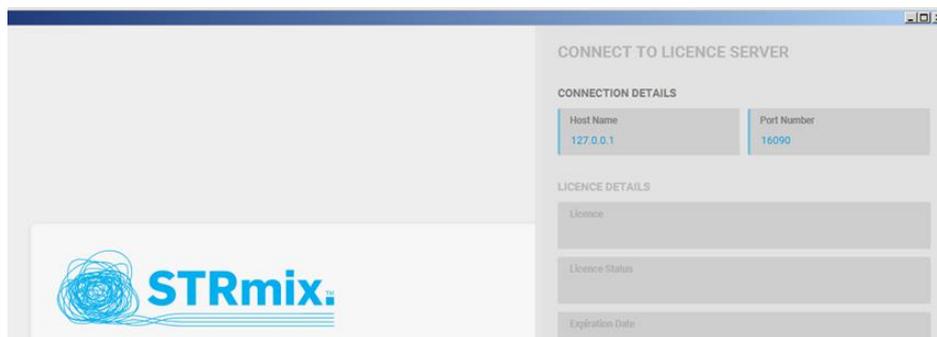


Figure 1.12 Connect to Licence Server screen

To obtain the IPv4 address on the server PC:

Step	Action
1	On the server PC, Select Start , then type cmd . Press the Enter key.
2	In the command prompt, type ipconfig
3	Locate the 'IPv4 Address' entry. The value of this is the IP address to use as the Host Name on the client machine, e.g. 243.65.123.15

- Once the Host Name and Port Number have been correctly configured, click **Connect**.

6. A STRmix™ Licence Agreement or Amended Licence Wording will appear (Figure 1.6 above). Scroll to the bottom and click **Yes, I Accept** to complete the installation.
7. Proceed to Section 1.7 to Set administrator password.

Note:

If you click **No, I Don't Accept**, your installation will cease.

1.6.3 Activation instructions for evaluation and time limited installations

Evaluation and time limited versions of STRmix™ will be provided as a zipped folder. Unzip the folder in your desired directory locally on your PC. Open the STRmix™ application by double clicking the STRmix™ icon. Follow the instructions for Section 1.6.1 to obtain a license.

Note:

If using an evaluation zipped version of STRmix™, then you will need to manually configure the Java virtual machine to allow STRmix™ to use the available memory. See Section 1.9 for details.

1.7 Set administrator password

When opening STRmix™ v2.8 for the first time, users are prompted to enter an Administrator password and select **Set Password** (Figure 1.13). Please note that this password is unable to be changed and will be required to authorise all changes made to settings including changes to stutter files, kits, populations and allele frequencies as well as saving defaults (e.g. for Database search). If you do not wish to have an Administrator password, leave the password field blank and select **Don't Protect**. Users will not subsequently be prompted for a password, and all future changes to settings can be made without authorisation.

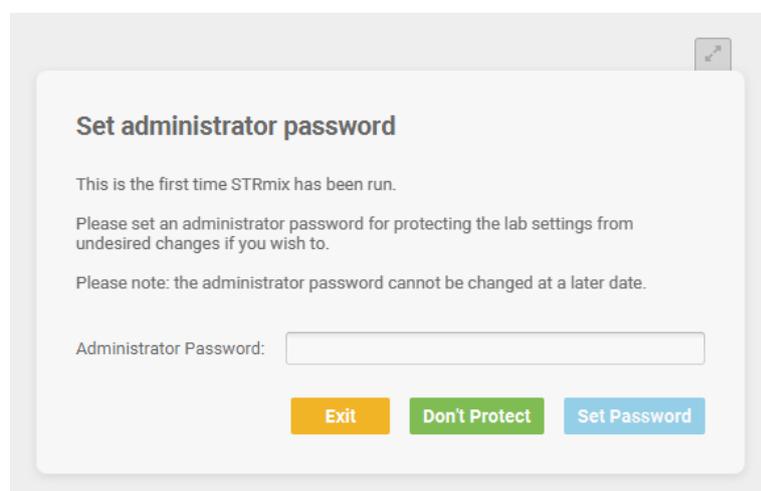


Figure 1.13 Set Administrator Password screen

1.8 Uninstalling STRmix™

To uninstall STRmix™, use Programs and Features in the Windows Control Panel.

When STRmix™ is uninstalled from a machine all data files generated will remain and only the application files will be removed. Data files may be subsequently moved or deleted from the STRmix™ folder manually.

1.9 Configuring the Java virtual machine – if required

The STRmix™ installer configures the Java virtual machine at the time of installation to be able to use as much of the computer's installed memory as is reasonable, for best performance. It does this by adding the '-Xmx' parameter to the Java virtual machine inside of the STRmix.l4j.ini file (located in C:\Program Files\STRmix).

For machines with 4GB or less of memory, this is set to the amount available, minus 1GB. For machines with more than 4GB, it is set to the amount available, minus 2GB. If for some reason this is not satisfactory, you may adjust this parameter up or down. Some examples are:

'-Xmx1250M' will allow 1250 megabytes of memory to be used

'-Xmx4G' will allow 4 gigabytes of memory to be used.

It is important to note that this is an upper limit for the Java virtual machine, and will not be used automatically. If used at some point during running of STRmix™, the Java virtual machine may not necessarily release memory back to the operating system unless the program is restarted.