

STRmix[™] 2.8 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 space⁵	300MB free HDD space⁵	300MB free HDD space⁵
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 <u>http://support.strmix.com/solution/articles/1000251533-how-do-i-uninstall-my-old-advanced-report-</u>

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 Identifiler kits. **Select Confirm in order for V2.8 to use the updated and developmentally validated default settings.** Note the changes to the Identifiler 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.

记 STRmix™ Setup v2.8.0	—		\times
Select Installation Folder This is the folder where STRmix™ will be installed.			0
To install in this folder, click "Next". To install to a different folder, ent "Browse".	er it be	elow or clic	k
_oider: C:\Program Files\STRmix\		Browse.	
< Back Next >	·	Can	cel

Figure 1.2 Select Installation Folder window

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

transferred Brandwight Stremming Setup v2.8.0	×
Ready to Install	
The Setup Wizard is ready to begin the STRmix™ installation	S
Click "Install" to begin the installation. If you want to review or change any of you installation settings, click "Back". Click "Cancel" to exit the wizard.	bur
< Back Sack	Cancel

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).

STRmix.	
Welcome to STRmix [™] .Please install a licence or connect to a licence server. If you do not have a licence, please copy the Licence ID below and send it to STRmix [™] support.	
Licence ID 1MSY41wbgC+MVrfujl3JXPLr/3JmQe3ld9QJEd3WjohW9fQAkIq3u/v705FFpvF8gDezvWNYmS2n+3W5fSxzxbms8p50lCdS 3ykOchTT6qzdiJaxkOKAyflzcpjY17PbMoYLOmccM+5pjzerm2dvzLlkm7bdXr4+pi37xoilXfoaL6loXolyZek3/yenWZLwC5iaMF dgL7pDj/P5upv775h8LHczEuvdW1V2ezqsg3KENWMBqlZHHFc3VQVo5vs0jNurcXNAh6Hf+d00XoaNfw2DqCROCWGUFabf aszMceiVXTnR9iafcV5tnvH.122wnS0fLHs9IabRWMKQiV8MExou1Mb3ZFcPRinViksnv+boMD, b9GbzNAba/FztdhdKriz3tza	t+3Q9fmt tf68UU6D (s+2P4ag
Install Licence File Connect to Licence Server Retry Purchase About	Exit

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.





Please read the following license agreement and accept it before using STRmix™.

SOFTWARE LICENSE AGREEMENT

IMPORTANT - READ CAREFULLY: This Software License Agreement ("License") is a legal agreement between you (either an individual or a single legal entity, who will be referred to in this License as ("the Licensee"), and STRmix Limited of New Zealand, New Zealand company number 6445312, ("the Licensor") for the STRmix™ software ("the Software") that accompanies this License, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation. The Software also includes any software updates, add-on components, templates, images, symbols, web services and/or supplementary documentation that the Licensor may provide or make available to the Licensee, or that the Licensee obtains from the use of features or functionality of the Software, after the date the Licensee obtains the initial copy of the Software (whether by delivery of a CD, permitted downloading from the Internet or a dedicated web site, or otherwise) to the extent that such items are not accompanied by a separate license agreement or terms of use. By installing, copying, downloading, accessing or otherwise using the Software, the Licensee agrees to be bound by the terms of this Agreement. The terms of this Agreement may be changed from time to time by the Licensor at the time it releases a new major version of the Software by notifying the Licensee.

No, I Don't Accept

No, I Don't Accept

Yes, I Acc

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Please read the following license agreement and accept it before using STRmix™.

SOFTWARE LICENSE AGREEMENT

IMPORTANT - PLEASE READ CAREFULLY

You must have a valid Software License Agreement to use STRmix™.

Use of STRmix™ is governed by a Software License Agreement which is a legal agreement between you (either an individual or a single entity) and STRmix Limited of New Zealand. A variation to the standard STRmix™ Software License Agreement ("License Agreement") has been agreed with you, and it is not reproduced here.

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).



STRmix ID Generator Setup: Installation Folder	—		×
Setup will install STRmix ID Generator in the follo different folder, dick Browse and select another the installation.	wing fold folder. C	ler. To insta lick Install t	II in a o start
Destination Folder			
C:\Users\user\AppData\Local\STRmix\Generator		Browse	
Space required: 29.9 MP			
Space available: 269.1 GB			
Cancel Nullsoft Install System v3.03	< <u>B</u> ack	Inst	all

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).

elect Components Which components should be installed?	Ready to Install Setup is now ready to begin installing Floating License Server on your computer.
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue. Floating License Server Installation	Click Install to continue with the installation, or click Back if you want to review or change any settings. Destination location: C:\Program Files (x86)\Floating License Server Setup type: Floating License Server Installation Selected components: Floating License Server Floating License Server Manager GUI
	· · · · · · · · · · · · · · · · · · ·

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).

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		,	Date of Issue: 29 September 2020
Floating License Server Manager			Connect to Floating License Server
Connection Configuration License	Client Help		Connection Information
Connect to License Server	1		Host name or IP: 127.0.0.1
Disconnect			Port Number: 16090 Save 🕼
Exit			Connect Cancel

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).

nnection View	Configuration Lic	ense Client Help
Installed Licens	e List	Install New License
License ID	Product N	Delete Selected License
		Access Control Restrictions

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 inbounding rule, create a new rule
- d. Choose a port
- e. Use 16090 as a port number
- Name it a "Floating Server Port". f.

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.



ST	'Rmix.
Welcome to STRmix". Please in If you do not have a licence, ple	Install a licence or connect to a licence server. Inase copy the Licence ID below and send it to STRmix [™] support.
Licence ID	
V05U9QgtcElMqHueCLgsGr ic488WCdPL4LRDZiomTmhl FJLGfrqtwLlAdQETU/wFxjC2	:0XnDEXQ6i6ZbqbMW5AxTJ7CEepuhHhhDCHNcXGvns/5CUA7NwstR6340+numLWEZ8wZmPMfDJc/H DET/ucSTC96NkQ+6UgEu+P6WVV7jaq61RQW3pkf3e6fv+W989L6K/WwvZa+8i4WZhMJAf4bCCOm4cN bRe7dYOovdyBE=
Install Licence File	Connect to Licence Server Retry Purchase About Exit

Figure 1.11 User Input screen

4. 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

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



- 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.

