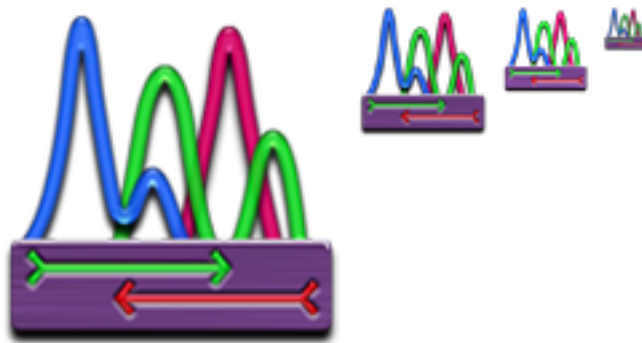


SEQUENCHER®

Installation Guide

for Macintosh



Overview:

- ◇ Getting Ready
- ◇ Installing Sequencher
- ◇ Activating and Installing the License
- ◇ Registering Sequencher

GETTING READY

Trying Sequencher:

Sequencher 5.2 and newer requires a license in order to run. You may, however, install **Sequencher** and try a short, limited-functionality demonstration right away. The **Sequencher** Viewer does not allow Saving, Exporting, Printing, or Reporting, but all other capabilities are the same. You may also request a free, 15-day Evaluation license that enables all of the features that **Sequencher** has to offer.

For Standalone licenses:

The Standalone license is installed on an individual computer. Choose which computer you wish to always run **Sequencher** on before activating your Standalone license. Or, if you already have an older licensed version of **Sequencher** that uses a hardware key, you may choose to tie the license file to that hardware key.

For Network licenses:

In order to set up your network so that users of **Sequencher** can get licenses, download and install the **Sequencher** RLM or KeyServer-based Server. You may install **Sequencher** and a client license on as many computers as you like.

Go to our website at www.genecodes.com/support/sequencher-server-download. If you haven't already set up a **Sequencher** Server, you may download either the Mac or Windows **Sequencher** Server. Both will serve a network license to the Macintosh client computer.

Additional Requirements for NGS, FastQC, and RNA-Seq

Aligning/Assembling Next-Generation Sequences:

You can now add the programs **BWA**, **Maq**, **GSNAP**, and **Velvet** to **Sequencher** yourself and use those algorithms to align or assemble your Next-Generation sequences. Please see the "Installing DNA-Seq Tools for Sequencher" guide on our website for detailed help in setting up your computer to use **BWA**, **Maq**, **GSNAP**, and **Velvet**, as well as the associated viewers, **Tablet** and **Maqview**. **MUSCLE** is also installed as part of the installation process.

Go to our website at www.genecodes.com/download. Once there, click on the link to download the DNA-Seq Tools Installer for Mac.

Analyzing FastQ Quality Control Reports:

You can now also add the **FastQC** program to **Sequencher** yourself and use it to generate and view FastQ Quality Control Reports. Please see the "Installing DNA-Seq Tools for Sequencher" guide on our website for detailed help in setting up your computer to use **FastQC**.

Go to our website at www.genecodes.com/download. Once there, click on the link to download the **FastQC** Installer for Mac.

Analyzing RNA-Seq:

You can now also add the **Cufflinks** suite for RNA-Seq to **Sequencher** yourself and use those programs to analyze your RNA-Seq data for Differential Expression. Please see the “Installing RNA-Seq Tools for Sequencher” guide on our website for detailed help in setting up your computer to use the **Cufflinks** suite.

Go to our website at www.genecodes.com/download. Once there, click on the link to download the RNA-Seq Tools Installer for Mac.

System Requirements

Make sure that your computer meets the following minimum recommended requirements:

- OS X 10.8 and higher, Intel processor
- 3 GB RAM (Working with NGS data requires more RAM. For **BWA**, the **Cufflinks** suite, and **Velvet**, at least 8 GB of RAM is recommended. For **GSNAP**, at least 16 GB of RAM is recommended. Very large datasets may require more.)
- 355 MB hard disk space (Installing DNA-Seq & RNA-Seq Tools for NGS data requires an additional 320 MBs.)
- RNA-Seq Tools and **GSNAP** are only supported on 64-bit operating systems.

To determine whether your computer meets these requirements, look under the **Apple** menu, **About This Mac**.

INSTALLING SEQUENCHER

The **Sequencher** installer may be downloaded from our website, www.genecodes.com, from the Free Download page.

PLEASE NOTE: You must have Administrative privileges on your computer in order to install **Sequencher**.

- If a **Sequencher** USB license hardware key is plugged into your computer, please remove it.
- Download the Sequencher for Mac dmg and double-click on the file to open it.
- Double-click on the **Sequencher** installer icon to launch the installer.



Sequencher Installer

You will be prompted to provide the installer with your user name and password.

- Enter an administrator user name and password and click **OK**.
- Click **Continue**.
- Click **Agree** to agree to the terms of the license agreement.
- Click **Install**.

If this is the first installation of **Sequencher**, version 5.2 or newer, a second installer may run that will add licensing system software.

- Click **OK** to quit the **Sequencher** installer after installation is complete.

The second system driver installer will start only if needed.

- Follow through the installation of the Sentinel System Driver by accepting all of the defaults during installation.
- Enter an administrator user name and password when prompted.
- Click **Restart** if prompted.

You'll see that the installer places a **Sequencher** folder in the **Applications** directory on your hard drive by default and the **Sequencher** folder will open.

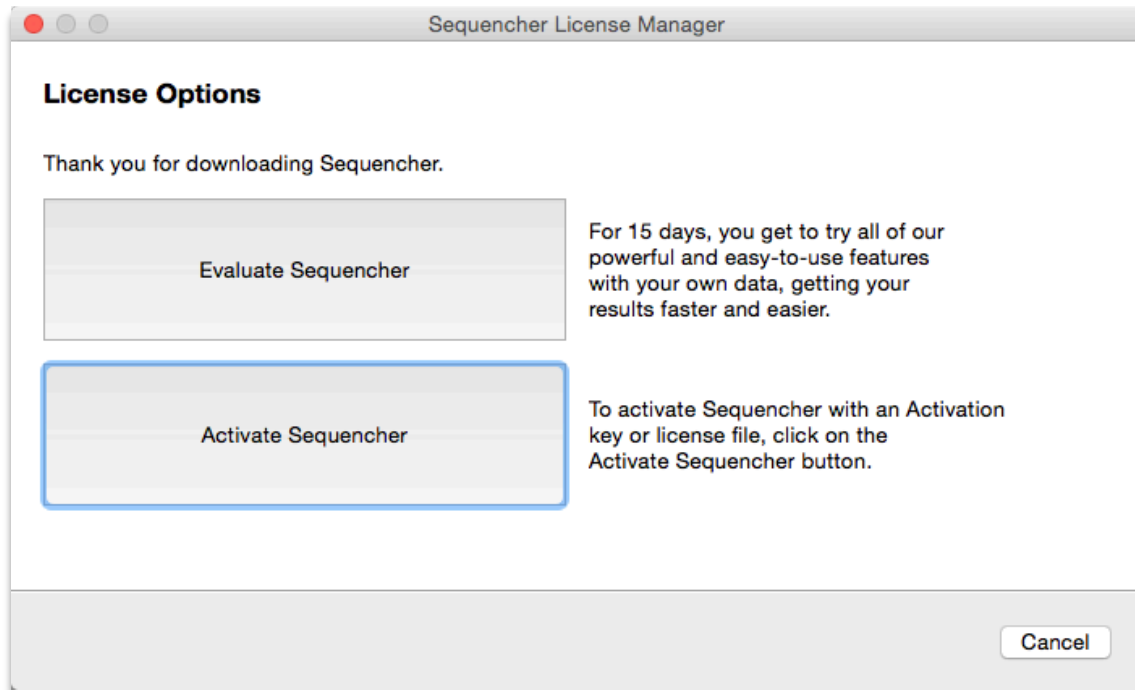
- If you removed a **Sequencher** USB license key as directed above, please plug it back into a free USB port. Powered ports on the computer itself are preferred over un-powered keyboard ports.
- Check that the light on the USB key is on.

ACTIVATING AND INSTALLING THE LICENSE

Automatically activating a license requires a connection to the Internet. Please make sure your antivirus protection software doesn't block web access. If the Sequencher License Manager cannot establish contact, it will create a license request file that you can send to us so that you'll be able to manually activate your license.

- Launch **Sequencher**.

When **Sequencher** starts without a valid license, the **Sequencher License Manager** wizard will open. You may access this window anytime from the **Sequencher License Manager...** command on the **Sequencher** menu.

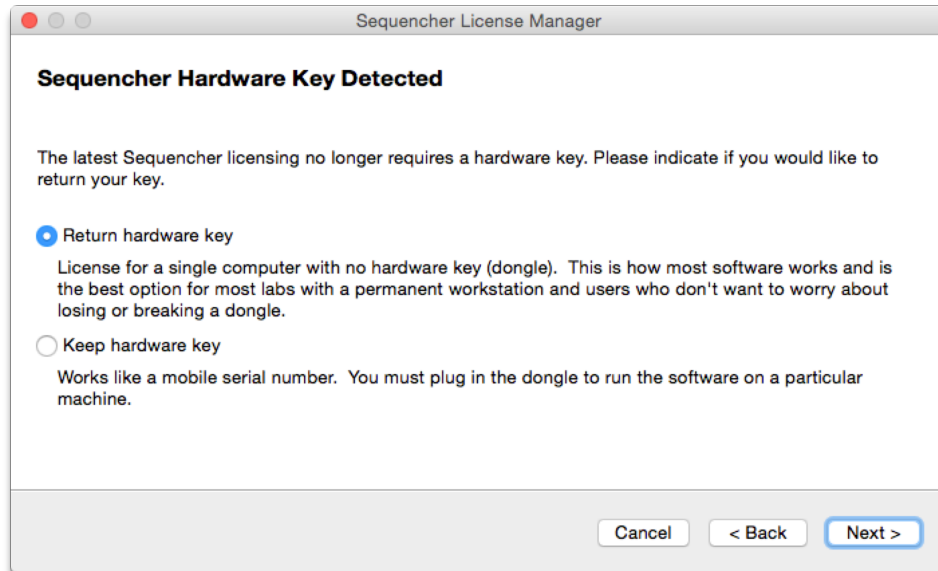


Activate a standalone license with an activation key

You should have received an activation key for your license. Standalone licenses, either new purchases or upgrades to existing licenses, may be activated within **Sequencher**. Please note that Network licenses cannot be activated from **Sequencher**. You must use License Tools instead (included in **Sequencher** Server downloads).

- Click on the **Activate Sequencher** button.
- Enter your Activation Key (example: 1234-1234-1234-1234 or UPGR-1234-1234-1234) and then click on the **Activate Sequencher** button.

If you are upgrading a license from an older version of **Sequencher** that used a USB hardware key, then you will be prompted to decide whether or not to lock your new license to your hardware key or return the key and lock your license to this computer.



- After you make that decision, click on the **Next** button.
- Click on **Start Sequencher** to launch **Sequencher** or **Quit** if you don't wish to launch **Sequencher** at this time.

It may take a few minutes for license activation to complete.

If for some reason **Sequencher** was unable to automatically activate your license, you'll be given the opportunity to activate your license by email. A `SequencherLicenseRequest` file will be saved to your desktop. We need this information to generate a license that is matched to your hardware or your hardware key. Please send the `SequencherLicenseRequest` file to ActivateMe@genecodes.com. Gene Codes will send you back a license file.

Returning a hardware key

Please send your hardware key back to Gene Codes within 21 days of deciding to return your key. Please ship the key using a trackable method such as UPS or USPS Tracking to the following address:

Gene Codes Corporation

ATTN: Dongle Return

525 Avis Drive

Ann Arbor, MI 48108 USA

Install a License File:

In order to run **Sequencher**, you must install a license file. Regardless of what type of license file you're installing (standalone, evaluation, RLM or Sassafras client), the procedure is the same.

- Click on the **Activate Sequencher** button on the **Sequencher License Manager** dialog.
- Click on the **Install License...** button, browse to your license file location, select your license file, and click on the **Install** button to install the license.

- Click on **Start Sequencher** to launch **Sequencher** or **Quit** if you don't wish to launch **Sequencher** at this time.

If you don't see the **Sequencher License Manager** dialog and you have a new license file you need to install, go to the **Sequencher** menu and select the **Sequencher License Manager** menu item.

If you're installing a network client license, make sure you've completed the installation of the **Sequencher RLM** or **Sassafras Server** before you attempt to use **Sequencher**. Both the server and clients must be installed before network licensing will work. For more information on **Sequencher Server** and client licenses, please refer to the **Sequencher RLM** or **Sassafras Server Guide** available as part of the RLM or Sassafras Server Admin downloads.

Evaluate Sequencher:

If you'd like to try **Sequencher**, you may request a 15-day, fully functional license. If that request fails, you will be provided with a 5-day Viewer license right away to use while you wait for your evaluation license. The Viewer has all of the capabilities of **Sequencher** except for saving, printing, exporting, or copying data out of the application.

- Click on the **Evaluate Sequencher** button on the **Sequencher License Manager** dialog.
- Fill in the information on the contact information pane and click **Next** to request a free 15-day evaluation license file for this computer.
- Click on **Start Sequencher** to launch **Sequencher** or **Quit** if you don't wish to launch **Sequencher** at this time.

REGISTERING SEQUENCHER

- Register online by going to the www.genecodes.com website and clicking on the **PRODUCT REGISTRATION** link. Please fill in the required information.

You will find your registration number on your hardware key if you have one or choose About Sequencher... from the Sequencher menu to read it from the splash screen.

If you have any questions or comments concerning the installation or operation of **Sequencher**, please contact us. We want to hear from you!

Email Information: gcinfo@genecodes.com

Technical support: support@genecodes.com

Phone numbers:

In the US: +1-800-497-4939

Outside the US: +1-734-769-7249

Fax: +1-734-769-7074