

# SEQUENCHER<sup>®</sup>

## Network License Server Installation Instructions

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For Macintosh and Windows

Gene Codes Corporation

T C A G E N E  
A G T C O D E S

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## Sequencher Server Network Overview

### DESCRIPTION

The Sequencher Network License Server is a concurrent user license system. Gene Codes provides you with a limited version of KeyServer License Management Software from Sassafra—for use with Sequencher licenses only. Sequencher license management can also be easily added to the fully licensed version of KeyServer.

In this system, one computer on your network is designated as a ‘Sequencher License Server’. The operating system of this Sequencher License Server machine is independent from the type of Sequencher licenses you’ve purchased. Windows KeyServers can provide Sequencher licenses for both Mac and Windows clients, and vice versa. To create a Sequencher License Server, you need to install the server software and attach the Sequencher network hardware key. While the key and license for KeyServer may be installed on either Mac OSX or Windows, the Sequencher licenses may not be interchangeable between platforms. You may purchase Windows-specific licenses, Macintosh-specific licenses, or a license that works on either. For instance, a single network might have 2 Mac, 1 Windows and 3 Any platform licenses. This would mean that 2 licenses are reserved for use on Macintosh only, 1 license is reserved for Windows-only use, and the 3 remaining licenses may be used on any client machine. Please note that only Sequencher version 5 can use an ‘Any platform’ license; older versions must use a platform-specific license.

The Sequencher License Server communicates with both the hardware key and with each Sequencher ‘Client’ computer. You will need to install both Sequencher and KeyAccess, the client software from Sassafra, on each client computer to obtain a license over the network and run Sequencher. The Sequencher License Server machine itself may also be used as a Client by installing KeyAccess and Sequencher in addition to KeyServer. Sequencher License Server limits the number of concurrent users, but you may install the client on up to 100 computers on your network.

Each time you launch Sequencher the following events take place:

1. Sequencher searches for a locally installed standalone key. If one is found, Sequencher launches.
2. If no standalone license key is found, Sequencher searches for the Client software—KeyAccess. KeyAccess uses the IP address of the Server, which you defined when you installed the software, to locate the Key over the network. The Server then checks the number of available licenses, and if one is available, Sequencher launches. Platform-specific licenses will be used first.

### INSTALLATION REQUIREMENTS

- 1 Sequencher Network hardware key (plug into either a Mac OSX or Windows computer). You should have been sent a black USB key with a green inset indicating that it contains concurrent use, network licenses.
- Download the appropriate Macintosh or Windows Sequencher License Server tools from <http://www.genecodes.com/support/legacy-support> — includes all of the Network software: Sequencher Server Installer, KeyServer Admin tools and Clients for Windows or Mac OS X.
- If you simply need the Client instructions and installers, you may download the much smaller Sequencher Client distributions for Windows and Mac OSX systems.

Text

### INSTALLING ALL THE PARTS


The installation instructions below will guide you through setting up Sequencher network licensing:

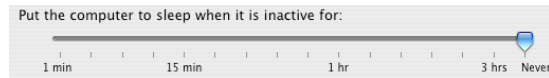
1. Install KeyServer and Sequencher licensing.
2. Install and configure the Client software, KeyAccess, on all machines that will use Sequencher.
3. Install Sequencher (see Sequencher Installation Instructions on the Sequencher CD).
4. Optionally install KeyConfigure, the administrative interface for KeyServer
5. Optionally install KeyReporter, the web report builder for KeyServer.

## Setup License Server on Mac

### GETTING STARTED

Choose one Macintosh (running OS 10.4.11 or higher, PPC or Intel) computer on your network to be your Sequencher License Server. This computer must remain on and connected to your network at all times in order for the client machines to be able to launch Sequencher. We recommend that your Sequencher License Server machine have a static IP address or DNS name.

1. Choose a computer that you can leave running. Launch System Preferences from the  menu and choose Energy Saver. Change the Sleep setting to Never.
2. Download [Sequencher License Server 6.2.1 for Mac \[DMG\]](http://www.genecodes.com/support/legacy-support) from the Gene Codes website at: [www.genecodes.com/support/legacy-support](http://www.genecodes.com/support/legacy-support)
3. Double-click to open the downloaded Sequencher Server Admin 6.2.1.dmg file.
4. Launch the Sequencher License Installer by double-clicking on its icon.



5. Provide an Administrator's name and password in the Authentication dialog and click **OK**.
6. Plug in the USB Sequencher Network key.
7. Click **Install** and accept the defaults, starting the KeyServer when prompted.

### SETUP SERVER

The Sequencher License Server installer will look for any pre-existing version of KeyServer. Full versions of KeyServer from Sassafras will simply have Sequencher licensing capability added to the list of managed programs, without requiring an upgrade. This installer will not shut down any running KeyServer without asking for permission. However, the KeyServer will have to be restarted before you may use the new Sequencher licenses.

If an installation or update of KeyServer is required, you'll again be asked to provide an Administrator's name and password and the KeyServer data files will have to be updated. Please accept the defaults.

8. Click **Update**.
9. Type in an Administrator's name and password and click **OK**.
10. Click **Start** to begin updating the KeyServer Data Folder.
11. Click **OK** to close the KSdbConsist window.
12. Click **OK** to dismiss the backup information alert.

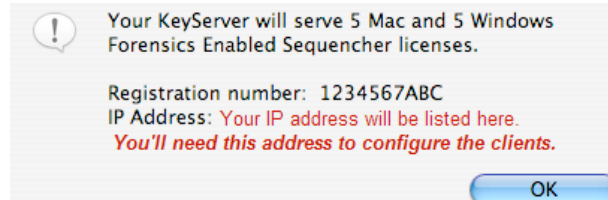
## START SERVING SEQUENCHER

The installer will add Sequencher license files and start up the KeyServer process; this may take a moment. If KeyServer is already running, you'll be asked to restart. If you can't interrupt a currently running KeyServer, you may Quit the installer by clicking the No button. When you restart the KeyServer at a more convenient time, or when you restart the computer, the new licenses will become available.

13. Click **Start** on the ks-StartStop dialog to begin serving Sequencher.

The final alert dialog will list 3 things:

- **The license counts on your Sequencher key:** If your license count is incorrect or the installer reports a problem with the key, please contact Gene Codes Technical Support at 734-769-7249 or support@genecodes.com. The listed licenses should match the label on the key and the number of licenses that you purchased.
- **Your customer registration number:** You may register online at [www.genecodes.com/product-registration](http://www.genecodes.com/product-registration). Please fill in the required information.
- **The IP Address of this KeyServer:** Be sure to note the IP address of the KeyServer, you'll need it to configure each Sequencher Client machine. A static IP address or DNS name for your server is highly recommended.



14. Click **OK**.

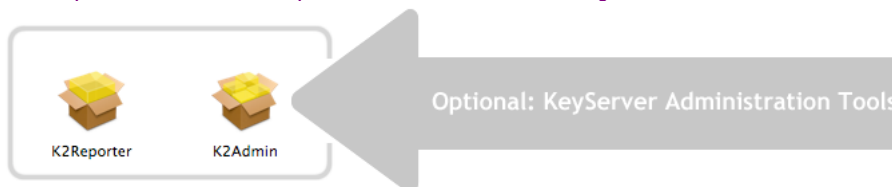
KeyServer will automatically start running whenever you start your Macintosh.

## Install Optional Administration Tools on Mac

KeyConfigure is the Administrative interface for KeyServer. Installation of this Admin tool is not necessary for running a Sequencher License network, but it does allow for explicit monitoring and control of the KeyServer process. KeyReporter is a web-based report generator for KeyServer. Installation of this Reporter tool is not necessary for running a Sequencher License network, but it will allow you to create a variety of reports on licenses and usage of KeyServer. Like the KeyAccess client software, KeyConfigure may be installed on any machine on your network to administrate KeyServer. KeyReporter should be installed on the same machine as KeyServer

Both KeyConfigure and Key Reporter are available on the Sequencher Server Admin 6.2.1.dmg. If you have not already downloaded the tools, they are available on the Gene Codes website:

1. Download the [Sequencher License Server 6.2.1 for Mac \[DMG\]](http://www.genecodes.com/support/legacy-support) from the Gene Codes website at: [www.genecodes.com/support/legacy-support](http://www.genecodes.com/support/legacy-support)
2. Double-click to open the downloaded Sequencher Server Admin 6.2.1.dmg file.



## INSTALL KEYCONFIGURE OR KEYREPORTER

1. Double-click on K2Admin to install KeyConfigure, or on K2Reporter to install KeyReporter.
2. Accept all of the installer defaults. You will be asked to provide an Administrator's name and password.

Please see the Appendices: Try KeyConfigure and Try KeyReporter for more information.

## Install and Configure the Mac Client

The Client software, KeyAccess, is the same for both Sequencher License Server and the full version of KeyServer by Sassafras. Before you install the Client software, you must know that the server is up and running. You must also know the static IP address of the Server or DNS name. Any number of computers may have the client software installed but only one can be running at a time for each purchased license. You must add both KeyAccess client and Sequencher software to any computer you plan to serve Sequencher licenses to; including the computer the KeyServer is running on if that's desirable.

### GETTING READY

The installation of KeyAccess requires defining the IP address or DNS name of the KeyServer machine holding the Sequencher license key. KeyAccess must be logged onto the KeyServer to allow a client machine to get a Sequencher license.

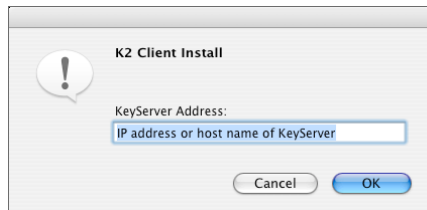
1. KeyServer must be installed **and** running on the Sequencher License Server machine.
2. If you've been using a standalone version of Sequencher on the Client machine, you must remove the Hardware Key. If Sequencher finds a standalone key, it will never look for a network license.

### INSTALLING KEYACCESS CLIENT

NOTE: you must have Administrative Privileges in order to install KeyAccess.

3. Download the [Sequencher Client.dmg](http://www.genecodes.com/support/legacy-support) from the Gene Codes website at: <http://www.genecodes.com/support/legacy-support> and double-click to open the Sequencher Client.dmg file. The K2Client installer may also be found in the Mac Client folder of the Sequencher Server Admin 6.2.1.dmg downloaded in the section above.
4. Double-click on the K2Client installer.
5. Click **Continue** and **Install** to accept the basic installation.
6. You will be prompted to provide an Administrator's user name and password.

After authentication, the installer displays the following dialog:



7. Enter the IP address or DNS name of the KeyServer and click **OK**.
8. Click **Close** to quit the installer.

The KeyAccess process will automatically start and login to the specified KeyServer. KeyAccess will start running and login to KeyServer whenever you start your Macintosh. You're ready to install and launch Sequencher.

### RECONFIGURE KEYACCESS CLIENT

KeyAccess is configured and running immediately after installation, but if you need to change the KeyServer Address, or test the connection to KeyServer, you can use the KeyAccess Preference Pane.

1. Launch System Preferences from the **Apple** menu and choose KeyAccess.
2. Enter the new address and click **Logon**. Click **KeyVerify** to test the connection.



## Setup License Server on Windows

### GETTING STARTED

Choose one Windows (running 2000 or higher) computer on your network to be your Sequencher License Server. This computer must remain on, and connected to your network, at all times in order for the client machines to be able to launch Sequencher. We recommend that your Sequencher License Server machine have a *static IP address or DNS name*.

Choose a computer that you can leave running and configure the power options to never turn the hard disks off.

1. Download the [Sequencher License Server 6.2.1 for Windows \[Zip\]](http://www.genecodes.com/support/legacy-support) from the Gene Codes website at: <http://www.genecodes.com/support/legacy-support>
2. Double-click to open the downloaded Sequencher Server Admin 6.2.1.zip file and choose Extract all files to unzip the Sequencher Server Admin folder.
3. Open the Sequencher Server Admin folder and double-click on Setup.exe to start the Sequencher License Installer application. The application will open to the **Server Install** tab.


Installing the Sequencher License Server requires that four steps be completed:

Step 1. Setup Server: Installs or updates KeyServer

Step 2. Check License Key: Installs or updates the hardware key drivers and makes sure that a valid Sequencher network key is plugged in.

Step 3. Add Sequencher Licensing: Adds license files, or replaces older Sequencher files in the KeyServer Data Folder.

Step 4. Start Serving Sequencher: KeyServer must be started with the new files in place to make the licenses available.

As soon as it's started, the application will analyze the current status of all 4 steps and report results in the status boxes. If the current installation is already acceptable, then the step will be marked as **Completed**.  Similarly, if the current configuration is not usable, then the step will be marked as **Required**. Each step has detailed information available by clicking the **More Info** button.

### STEP 1. SETUP SERVER

This application will search for an installed version of KeyServer. If the step is already marked **Completed**, then proceed to Step 2. Clicking the **Install** command button adds the KeyServer application to this computer as a Service or updates a previously installed version of the KeyServer. **This will interrupt a currently running KeyServer**. If your KeyServer serves a large number of programs, then updating the license database may take a while. We highly recommend that you update an installed version of KeyServer, but it is not mandatory.

4. Click **Install** under Step 1 to install the KeyServer components. This may take a minute.
5. Click **OK** to shutdown the currently running KeyServer if one is running.

If you already have an installed version of KeyServer, the KeyServer data files will be updated. Please accept the defaults.

6. Click **Start** to begin analysing the KeyServer Data Folder.
7. Click **OK** to close the KSdbConsist, the 'Old Server Folder Renamed', and the 'KeyServer Installed' windows.

When the KeyServer installation is complete, the Sequencher License Server application will update the status of Step 1 and mark it as **Completed**.

### STEP 2. CHECK LICENSE KEY

When you have installed both the Sequencher network key and the Sentinel drivers, this application will report the number of licenses programmed on the key and the version of the installed driver. If your license count is already displayed and the Check License Key step is already marked **Completed**, then you do not need to update your drivers, but it is recommended.

8. Unplug any USB Sequencher keys.
9. Click **Install** to launch the Sentinel Hardware Key Drivers installer. Accept all of the installer's defaults. Click **Finish** when the installation is completed. You may be prompted to restart your machine if older drivers must be removed.
10. Plug in the USB Sequencher Network key. The status box should display licensing information for your hardware key.

### STEP 3. ADD SEQUENCHER LICENSING.

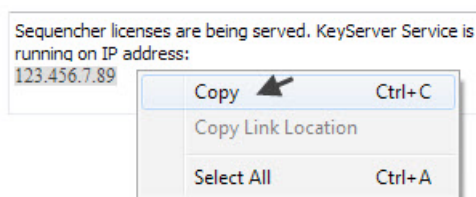
11. Click **Install** to add (or update) the Sequencher licenses to KeyServer.
12. It may be necessary to shutdown your running KeyServer to update existing licensing files. Click **OK** at the prompt.

### STEP 4. START SERVING SEQUENCHER

In order to complete the installation process, KeyServer must be started *after* the Sequencher license installation to enable the new licenses. **If you can't interrupt a currently running KeyServer**, you may continue to run your KeyServer in its older configuration. When you restart the KeyServer at a more convenient time, or when you restart the computer, the new licenses will become available.

13. Click **Start** (or **Restart**) to begin serving Sequencher.

Be sure to note the IP address of the machine where you installed KeyServer. You may select the text in the message box and right-click to Copy it. You'll need this address to configure KeyAccess on each Sequencher Client machine.



KeyServer will automatically start running whenever you start your Windows machine.

## Install Optional Administration Tools on Windows

KeyConfigure is the Administrative interface for KeyServer. Installation of this Admin tool is not necessary for running a Sequencher License network, but it does allow for explicit monitoring and control of the KeyServer process. KeyReporter is a web-based report generator for KeyServer. Installation of this Reporter tool is not necessary for running a Sequencher License network, but it will allow you to create a variety of reports on licenses and usage of KeyServer. Like the KeyAccess client software, KeyConfigure may be installed on any machine on your network to administrate KeyServer. KeyReporter should be installed on the same machine as KeyServer. Please see the Appendices: Try KeyConfigure and Try KeyReporter for more information.

Both KeyConfigure and Key Reporter installers are available in the Sequencher Server Admin 6.2.1.zip. If you have not already downloaded the tools, they are available on the Gene Codes website at <http://www.genecodes.com/support/legacy-support>.

### INSTALL KEYCONFIGURE OR KEYREPORTER

1. Open the Sequencher Server Admin folder and double-click on Setup.exe to start the Sequencher License Installer application.
2. Click the **Administrative Tools** tab.
3. Click **Install** to launch the K2Admin installer to add KeyConfigure or the K2Reporter installer to add KeyReporter to this machine.
4. Please accept all of the installer defaults.



## Install and Configure the Windows Client

The Client software, KeyAccess, is the same for both Sequencher Server and the Full Version of KeyServer by Sassafras. Before you install the Client software, you must know that the server is up and running. You must also know the static IP address of the Server or DNS name. Any number of computers may have the client software installed but only one can be running at a time for each purchased license. You must add both KeyAccess client and Sequencher software to any computer you plan to serve Sequencher licenses to including the computer the KeyServer is running on if that's desirable.

### GETTING READY

The installation of KeyAccess requires defining the IP address or DNS name of the KeyServer machine holding the Sequencher license key. KeyAccess must be logged onto the KeyServer to allow a client machine to get a Sequencher license. You can use this installer to check the status of a client. If you don't know the address of your KeyServer, please contact your system administrator or you may check the address by running the Sequencher License Installer application on the KeyServer machine. The KeyServer's address should be listed in the Start Serving Sequencher status box.

1. KeyServer must be installed **and** running.
2. If you've been using a standalone hardware key on the Client machine, remove it. If Sequencher finds a standalone key, it will never access a network license.
3. Download the [Sequencher Client 6.2.1 for Windows \[Zip\]](#) from the Gene Codes website at: <http://www.genecodes.com/support/legacy-support>. (The KeyAccess installer is also available from the **Client Install** tab of Sequencher License Installer [Sequencher License Server 6.2.1 for Windows \[Zip\]](#)).
4. Double-click to open the Sequencher Client.zip file and choose Extract all files to unzip the Sequencher Client folder.

### ADD KEYACCESS CLIENT

Clicking on the Install button adds the KeyAccess client Control Panel to this computer. Previously installed versions of KeyAccess will be updated. Once installed, the KeyAccess service will automatically start and connect to the specified KeyServer. KeyAccess will start running and logon to KeyServer whenever you start this machine. *On 64 bit operating systems, several restarts may be required to complete the installation.*

5. Open the unzipped Sequencher Client folder and double-click on Setup.exe.
6. Click **Install**. On 64 bit systems, you'll be warned that a restart will be required. Click **OK** if it's ok to continue with the installation at this time.
7. Enter the **IP address** of your KeyServer and click **Next**. Accept all of the installer's defaults.

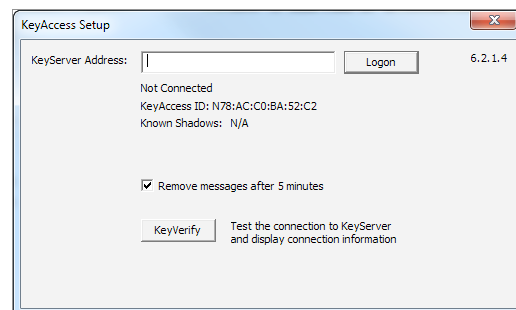
You're ready to install and launch Sequencher. Please see the Sequencher installation instructions on the Sequencher CD.

### RECONFIGURE KEYACCESS CLIENT

KeyAccess is configured and running immediately after installation, but if you need to change the KeyServer address, or test the connection to KeyServer, you can use the KeyAccess Setup Control Panel.

1. Click **Configure** to open the Key Access Control Panel.
2. Enter the new KeyServer address and click **Logon**.
3. Click **KeyVerify** to test the connection.

You may also launch KeyAccess Setup from Start/Control Panel/ KeyAccess. You may have to **Switch to Classic View** on Windows XP to see the KeyAccess Control Panel.



## Appendix

### FIREWALLS

You may have a firewall that blocks KeyServer from working. Firewall rules must be configured on the KeyServer host to allow communication with its clients. The port that needs to be opened is **UDP 19283**. Please see your System Administrator.

### LICENSE FILES DEFINED

KeyServer stores information about licensed programs in the KeyServer Data Folder located in Library/KeyServer on Mac OSX and Program Files\SassafrasK2\Server folder on Windows. The following files will be added to the KeyServer Data Folder:

- **rf\_SeqM and rf\_SeqW:** these library files allow KeyServer to communicate with the Sequencher network key, reading the number of purchased Mac and Windows Sequencher licenses.
- **SeqMac.lic and SeqWin.lic:** these license files add Sequencher for Macintosh and Sequencher for Windows to the list of programs the KeyServer manages.
- **SeqServer.lic:** this is the license file for KeyServer itself. Gene Codes provides a limited license for the KeyServer—for use with Sequencher licenses only.

### TRY KEYCONFIGURE

Test an Admin connection to KeyServer. KeyServer needs to be installed and running first. KeyConfigure may be installed on any machine on the network. For more information, please see: <http://www.sassafras.com>.

1. Launch KeyConfigure in Applications\SassafrasK2\Admin folder on Mac or keycfg32 in Program Files\SassafrasK2\Admin folder on 32 bit Windows os's, and in Program Files (x86)\SassafrasK2\Admin folder on 64 bit Windows os's.
2. In the top-most field, enter the IP address (or DNS name) of the computer hosting the KeyServer process. Login using the account name "Administrator" with the default password "Sassafras" (first letter capitalized).
3. Click **OK** and **OK** again.

KeyConfigure will bring up three windows named Computers, Programs, and Licenses. These three windows display the basic building blocks for the configuration of software auditing, license management, and report generation.

### TRY KEYREPORTER

KeyServer needs to be installed and running first. KeyServer and KeyReporter should be installed on the same machine. Go to <http://www.sassafras.com/hrl/6.2/keyreporter.html> for more information on configuring KeyReporter, scheduling automatic reports or running in non-default locations.

1. Launch any web browser (Internet Explorer, Safari, etc.). In the navigation toolbar, enter the IP address (or DNS name) of the KeyServer as the URL.
2. Login using account name "Administrator" with default password "Sassafras" (first letter capitalized). Hit Enter key.
3. Click on the **ReportBuilder** link to see a list of available reports. Most of the reports are available with the Gene Codes limited KeyServer license.
4. Under List Reports, select List (LIC) and click the **Create** command button at the far right of the window. A properly installed Sequencher License Server will list Sequencher for Macintosh and Sequencher for Windows along with their license counts.

Name	Limit
KeyCheckout License	∞
KeySentry License	3
KeyVerify License	2
Sequencher for Macintosh	5
Sequencher for Windows	5