Senomix Timesheets
for Mac OS X

Self-Installed Server
Installation Guide

v5.2

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1.0 - Timesheets Server Installation and Use

The Senomix Timesheets Server is the program which will collect all of your office's time and expense tracking data.

To extract your Senomix Server data files from their .zip package, we recommend using the default Mac .zip archive program rather than a third-party tool (such as Zipeg, which can change the application permissions of your Senomix programs and prevent them from running).

> ## Please Note:
>
> If your server computer uses an anti-virus security system
> with active scanning, you must whitelist all Senomix
> applications running on that computer in order to avoid
> the possibility of server data corruption.

Active scanning anti-virus systems (such as those provided with Symantec Endpoint, Norton Internet Security, or Kaspersky Anti-Virus) will prevent the writing of data files to your computer's hard drive if they identify those files as being a possible threat. If your Senomix data files coincidently have the same digital pattern as a piece of a known virus (something called a 'false positive' virus scan result), your virus scanning system will prevent writing of that data to your hard drive, resulting in a corruption of your Senomix database.

To avoid that possibility, if you are running anti-virus software on your server computer, you must instruct your active scanning anti-virus security software to allow your Senomix server to read and write its data files without interference. That is accomplished either by adding your Senomix applications to your security software whitelist, or by excluding your Senomix applications from active scanning entirely.

If you would prefer not to exclude your Senomix applications from active scanning by your anti-virus security system, we recommend transitioning to a hosted plan (where we can manage your server program and application data for you) rather than proceeding with a self-installed system.

To install your Senomix Timesheets Server program:

1. Locate the .zip archive file which you downloaded from Senomix. The file will be named "senomix_timesheets_5_2_mac_os_x.zip".

2. After opening that archive, you will see two folders:

        /Senomix Timesheets Server
        /Documents

The first file you will interested in is the Senomix Timesheets Server, which his located in the /Senomix Timesheets Server folder.

That folder contains the Senomix Timesheets Server program and will hold the data files into which your office's time and expense data will be saved. That folder can be placed in any location you would like. To get started, drag that folder onto your Mac desktop:
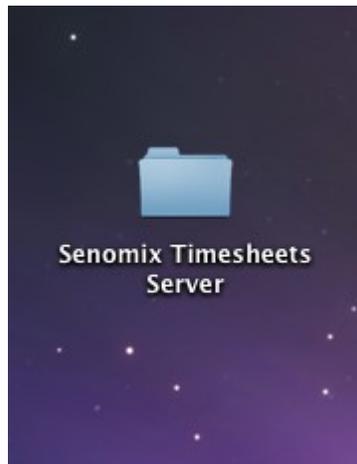
(You can move this folder to another location later if you would like)

3. Before your Senomix Timesheets Server program can be started, the data files for your system must be placed into your /Senomix Timesheets Server folder.

Those data files will have been provided to your office as a .zip package attachment to your system registration email. If you cannot locate that .zip package attachment, please contact Senomix Support at support@senomix.com to receive those data files.

With your data file .zip package in-hand, extract the included data directories /st_conf and /st_data to your /Senomix Timesheets Server folder, as follows:
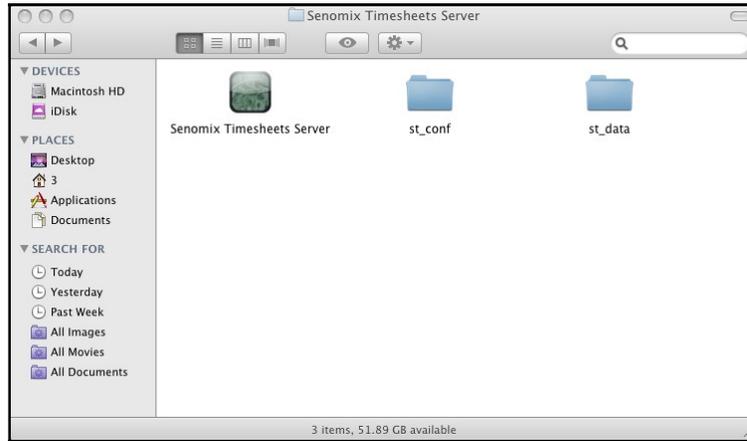

The folders named st_conf and st_data are the locations into which your time and expense data will be saved (we recommend that the st_conf and st_data folders be included in your office's daily backup processes to keep your data safe from a hard disk failure or other computer crash).

4. With your data files in place, you are now ready to start your Senomix Timesheets Server program.

To start the Timesheets Server and make the system ready to receive your timesheet data, click the green icon named Senomix Timesheets Server. The server will start quietly in the background, with a green icon displayed in your OS X Dock.

You may be prompted to install Java when starting your Senomix applications for the first time. If, when starting the server application, you see the prompt:
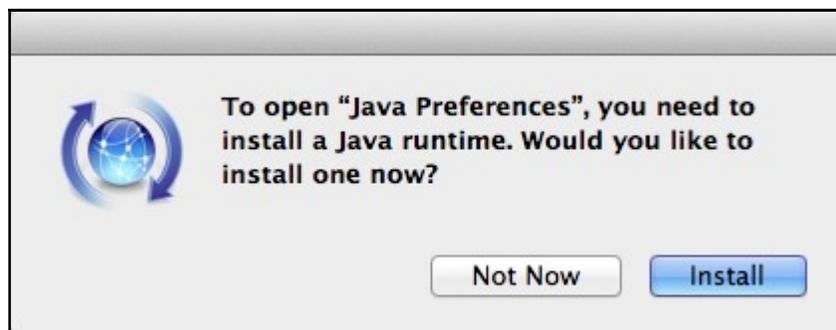
Select the "Install" option to install Java on your computer.

Java installation is only required one time.

Apps Closing or Damaged?

If your Mac informs you that your Senomix apps are "**damaged and can't be opened**", they are most likely being blocked by Mac Gatekeeper and are not actually damaged.

Mac Gatekeeper will block Java-based programs (like your Senomix Timesheets Server) with a 'damaged' error message unless those programs are first cleared for use. To correct that block, you will need to adjust Mac Gatekeeper to grant the application permission to run.

If the green server icon **bounces in your dock and then closes without any warning message displayed**, the application has been corrupted by the .zip program used to extract your files. This can be corrected by returning to Step 1 of these instructions and then extracting your files again **using the default .zip archive program** included with Mac OS X.

Third-party .zip file handlers (such as Zipeg) can corrupt the file permissions of extracted applications and prevent them from running. When extracting Senomix files, we recommend always using the .zip utility provided with Mac OS X.

Be Sure to Disable App Nap

Modern versions of Mac OS X include a feature named
App Nap which reduces the amount of computer power
directed to applications detected as being idle.

As your Senomix Server and other apps are not constantly active,
App Nap will slow your programs down if it is enabled,
affecting both your system's performance and stability.

While installing Senomix, please be sure to
disable App Nap on your Senomix Timesheets Server.

5. With your Senomix Timesheets Server program started, you can now connect to your applications for time entry and system administration through your sign-in page at:

http://insecure-self-installed-sign-in.senomix.com

For guidance on signing in to your self-installed Senomix server, please see the instructions provided through the Help button located at the top-right corner of that screen.

To enable an administrator to log into a self-installed system for the first time, a temporary account has been included with every self-installed Senomix server. This temporary account is:

Username: DEFAULT
Password: DEFAULT

This account should be deleted from your system as soon as you have created an administrative user for your own use.

The Senomix Account value for your office's self-installed system will be the IP address of your server computer, preceded by "s:". For example, if your server computer's IP address was 192.168.1.5, the Senomix Account value to enter would be "s:192.168.1.5" (without the quotes).

For a step-by-step introduction to using Senomix Timesheets, please see the Getting Started Guide provided on your Help page at:

www.senomix.com/help

6. Your Senomix Timesheets Server is now installed as a part of your office's IT infrastructure.

To ensure your system data remains protected and intact regardless of any data emergencies your office may encounter, a few additional precautions must be followed to secure your system:

As noted at the start of these installation steps, please ensure your Senomix Timesheets Server program has been **white-listed in any anti-virus or network scanning software** which may be installed on your systems. If your Senomix server program is not cleared of any interference in your anti-virus systems, those system will eventually trigger a 'false-positive' virus scanning result **and corrupt your office's Senomix database**. Symptoms of that data corruption would include time and expense records which suddenly go 'missing', or effort hour and expense data which is incorrectly recorded.

To ensure your Senomix Timesheets data is included in **your office's data backups**, be sure to include the \st_conf and \st_data directories noted above in your regular scheduled backup process. Those directories include all data you will require for data recovery in the event of a hard drive failure or other data-loss situation.

The /st_conf and /st_data directories to include in your data backups are located in the /Senomix Timesheets Server folder you placed on your server computer during installation.

Please be certain to regularly test your data backups. As long as your office has a set of off-site data backups available for access, your system will be able to survive any sort of data disaster.

If the computer on which you have installed the Senomix Server
is not included in your office's regularly scheduled backup process,
be sure to make a backup of its contents at least once per day
to ensure your timesheet data remains secure.

2.0 - Server Operation

To start your Senomix Server, click the green "Senomix Timesheets Server" icon as described earlier in this guide. If the server bounces in your dock and then immediately closes, your .zip program may have corrupted the server application or your Mac may be blocking the application start. See the installation steps earlier in this guide for instructions on how to correct that problem.

To start your Senomix Server automatically when you log into your Mac, you can set the program to operate as a daemon process (as described in the appendix of this document).

To stop your Senomix Server, select the running program and choose the "Quit" option (as you would do for any other Mac program) or simply shut down your Mac to have the Timesheets Server halt with your computer.

3.0 - Network Configuration

General Firewall Configuration

If your office is using an external firewall, router, switch or VPN between the computers running the Server and Client Applications (as will be the case for employees using Senomix Timesheets via iPad, iPhone, Android phones and tablets, or off-site or from a home office), **you must ensure that TCP port 8052 is open for traffic sent to the server**. The Timesheets Server receives network connections on TCP port 8052, with the client applications initiating their remote connection through the standard 'ephemeral' ports for their operating system.

If all computers are running behind the same firewall (and so will not have any traffic passing through that network shield), you should not need to adjust your office's network firewall for Senomix Timesheets traffic.

Network Configuration for External Connections

For most office networks, the only adjustment required to allow external Senomix traffic from employees working off-site or via phone or tablet devices will be on the side of the computer running your Timesheets Server. If that computer is located behind a router (for example, if it is connecting to the internet through a wireless wi-fi access point), you will need to set your router to port forward all traffic arriving on TCP port 8052 to the internal IP address of the computer which is running your Senomix Timesheets Server.

Instructions for the Senomix Timesheets port forward configuration of most models of network router can be found through this web page link:

<div align="center">

https://portforward.com/ports.htm

</div>

Select "Senomix Timesheets" in that list of applications and follow the instructions to identify the router of interest to you.

If your particular model of router cannot be found through those pages, please refer to the documentation provided with your router for appropriate port forwarding instructions.

The server IP address to use when logging in to Senomix Timesheets from outside of your office's network (so, via iPhone/iPad/Android or over the public internet) will be the IP address assigned to your office's router by your Internet Service Provider (ISP).   Internal office connections should continue to use the IP address of the server computer as seen within your office network.

If your router's IP address is not static (so, it may be reassigned by your ISP from time to time), you can use a 'dynamic DNS' service to provide a permanent hostname for your Senomix Timesheets Server. The hostname provided by that service can then be entered in the system sign in screen of remote users to provide an unchanging login point.

Once your router port forwarding has been configured, you can use any number of free online 'port forwarding tester' utilities to check that your connection has been cleared for remote access. For example, at this site:

http://www.yougetsignal.com/tools/open-ports/

You can enter the IP address of your office's router along with the port number 8052 to confirm that the Senomix Timesheets Server installed at your office is ready for external access.

To ensure your server computer's IP address does not change on your network when that computer is rebooted, be sure to set that computer to have a static IP address assigned by your router. Instructions for setting static IP addresses for most types of network router can be found through this link:

http://www.portforward.com/networking/staticip.htm

For client-side connections (that is, everyone accessing the Timesheet Entry, Administration and Reports apps from outside of your office), no adjustments should be required beyond permitting Senomix Timesheets traffic through the PC's network shields (for example, your virus scanner or firewall software).

If you have any questions while configuring your network for external connections to Senomix Timesheets, please do contact us at support@senomix.com

VPN Troubleshooting

If you have configured your router and firewall to permit Senomix Timesheets traffic but are still having difficulty using Senomix Timesheets through your office's Virtual Private Network (VPN):

-   Ensure that your VPN, firewall and network devices have been set to an MTU of at least 1500 (which is the generally accepted value for maximum packet size on the Internet).

-   Check that your VPN and firewall have not been set to discard fragmented packets.

    If any network devices between the client and server applications of Senomix Timesheets have been set with an MTU (Maximum Transmission Unit) value lower than the standard maximum of 1500 bytes, it is likely that Senomix Timesheets traffic will have been fragmented in transit by those devices. Permitting fragmented packets ensures older or mis-configured network devices will not interfere with your system's operation.

4.0 - System Uninstall

To uninstall the server and all other Timesheets applications from your Mac, first stop the Timesheets Server (as described earlier in this guide) and then delete the program files and folders you copied to your computer in the steps outlined in Section 1.

Some settings data for your Timesheet Entry, Administration and Reports application will have been written to your Mac's /Library/Caches directory. If you would like to remove those cached files from your computer, you can do so by deleting the /Senomix directory located in the /Users/[your username]/Library/Caches/ directory, where [your username] is the username you use to log into your Mac.

Appendix I - Installing the Server as a Daemon Process

The Senomix Timesheets Server program can be set to operate as a daemon background process on your office's Mac OS X server by using the com.senomix.server.plist file located in the /Documents folder of your installation package.

The Senomix Timesheets Server daemon will operate as your system's _appserver user by default. If you would prefer instead to run the daemon with a different user account, simply change the UserName attribute of the .plist file and 'chown' the server and directory files as described below.

To install the Senomix Timesheets Server as a daemon:

1) Copy the com.senomix.server.plist file from your installation package's /Documents folder into your Mac OS X server's /Library/LaunchDaemons directory.

2) Copy the /Senomix Timesheets Server folder and all included program files and directories to the /Library folder of your Mac OS X server.

3) At the command prompt, enter:

```
sudo chown -R _appserver "/Library/Senomix Timesheets Server"
```

to change the owner of the Senomix Timesheets Server program and all data files to the _appserver user. If you would prefer to use a different user account instead, substitute the '_appserver' user in that command with your preferred user account and adjust the "UserName" attribute in the com.senomix.server.plist file before proceeding.

4) At the command prompt, enter:

```
sudo chown root:wheel /Library/LaunchDaemons/com.senomix.server.plist
```

to change the owner of the daemon's plist file.

5) At the command prompt, enter:

```
sudo chmod 644 /Library/LaunchDaemons/com.senomix.server.plist
```

to set the plist file's permissions.

6) Finally, to register the daemon with your Mac's launchd configuration, enter:

```
sudo launchctl load -w /Library/LaunchDaemons/com.senomix.server.plist
```

The Senomix Timesheets Server will now be started as a background daemon process on your Mac OS X server and will remain active after your current user account has been logged out. The daemon will also automatically start whenever your Mac OS X server computer is booted.