

Sanako Study

TECHNICAL GUIDE

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ABOUT SANAKO STUDY

STUDY APPLICATIONS

SANAKO STUDY TUTOR APPLICATION

Teachers use the Study Tutor application, which is the main interface to the Study system. The Tutor application allows teachers to instruct with the Study system and to control the classroom computers.

SANAKO STUDY STUDENT APPLICATION

The Study Student application is installed onto all student computers. Study Student connects to Study Server at system startup and runs in the background listening for commands from Study Tutor. Students can open the student interface to work independently, however, teachers are able to control student computers, regardless of whether the Student application is visible on student screens or not.

SANAKO STUDY SERVER

The Study Server application is the information center of the Sanako Study system and both the Tutor and Student components automatically connect to it. All system data is passed through Study Server and it allows communication between the Tutor and Student components.

We recommend using classroom specific server computers, commonly the teacher computer in each class, with individual classroom names.

However, you may also use a shared license server for multiple classrooms. Please note that in this case the shared license server must be running in order to use any of the classrooms.

STUDY LICENSES

Instead of a printed product license, Sanako Study customers receive a license activation token by email. The token is entered during Study Server software installation to activate the software license. However, the activation process requires that you have an active Internet connection.

We also recommend all customers to register and create a user account on the Sanako registration portal in order to ensure that they will receive all product updates according to their software maintenance agreement. The registration can be done anytime. Once you have completed the registration process, you will receive your user account information by email. The address for the registration portal is:

<http://registration.sanako.com/tokens/en-US/Account/Registration>

In case the computer where you are installing Study Server software does not have an Internet connection, you may complete an alternative offline activation process in order to finalize your installation.

STUDY CLASSROOMS

Sanako Study uses virtual 'classrooms' to bring together both teacher and student computers into the same learning space. Each teacher and student computer is assigned a 'classroom name' during installation. When teachers begin a learning session, they will get to select which student computers to include from all the computers in their 'classroom'.

REQUIREMENTS

AS PER THE REQUIREMENTS FOR THE MICROSOFT® WINDOWS® 7, WINDOWS 8, OR WINDOWS 10 OPERATING SYSTEM

- Microsoft® Windows® 7, Windows 8, or Windows 10 operating system
- Microsoft .NET Framework® 4.0 Full
- 1.5 GHz processor
- 1 GB of system memory, 2 GB recommended for Tutor PC
- 100 MB of free disk space for installation *
- 1024*768 display resolution with 16-bit colors
- AC97 or HDA compatible sound card
- Network Adapter, TCP/IP support required
- PC Headset – recommended Sanako models to ensure high quality audio
- Internet access during Server component installation**

*) The amount of free disk space required during the use of Study 1200 varies primarily according to the use of the recording functionality - longer recording times require more disk space.

**) If there is no Internet connection on the Server computer, you may perform an offline activation process. Instructions for offline activation can be found later in this guide.

Note: It is mandatory for proper operation of the lab that hibernation and switch user NOT be used under any circumstances. If they are then the system must be rebooted to restore full functionality.

Note: Actual requirements may vary based on your system configuration. It is essential to make sure that the operating system runs smoothly on each computer where a Study Tutor or Student application will be installed.

Note: We recommend that you install all Windows updates for your operating system in order to ensure that Study will run properly.

Note: Study extension modules may have additional software and hardware requirements. Please ensure that your environment also meets the requirements of any modules that will be installed.

NETWORK REQUIREMENTS

The following requirements should be met by the network.

- Study uses Multicast transmission by default with Unicast an optional transmission mode. Multicast must be enabled in the network if multicast transmission is used.
- All computers must be in the same TCP/IP sub-net in order to allow multicast transfer of screen and audio to students
- It is recommended that all workstations within a room are connected to the same network switch with support for multicast transmission
- Student and teacher workstations need to be able to PING each other and the Study Server with TCP/IP packets
- If the computers have multiple network adapters, the adapter used by Sanako Study must be bound first, because Windows operating systems send multicast data to the first adapter
- In LAN minimum of 100Mbps speed or greater dedicated to each workstation. For Wi-Fi implementations, please refer to the Sanako Wi-Fi Deployment Guide found on the installation DVD for requirements and suitable wireless hardware
- For optimum performance in file operations, we recommend using a file server for storing media files and collected student recordings. However, the teacher computer may be used for file operations if a separate file server is not available.
 - Teacher and students should have unrestricted access to the server
 - Schools may use an existing server with Linux, Windows NT or Windows Server operating system
 - A NAS (Network Attached Storage) server may also be used

FIREWALL SETTINGS

Sanako Study adds required Windows firewall exceptions automatically during installation.

If a non-Windows firewall is used please verify that the following programs have been added to the firewall exceptions list.

- Tutor.exe (Tutor computer)
- Student.exe (Student computers)
- StudyServer.exe (on computer with Study Server software)

The default TCP ports used by Sanako are:

- Port 5060 for audio packets
- Port 15525 for screen packets
- Port 15535 for remote control data
- Ports 6310, 6311 and 6312 for Study Server operations

NOTES ON DISK SPACE

The amount of hard disk space required for the storage of digitized files depends on how much material will be made available to the students at any one time and how much work the students are likely to save to their own area. Disk quota sizes usually vary between 20 and 50MB per student. However, students using Study 1200 typically require a disk quota of 100MB minimum to allow them to save work during class for self-study reinforcement.

A typical MP3 audio file size (default setting in Study 1200) is approximately 1MB per minute.

Therefore, a typical 160GB hard disk drive would allow for the saving of approximately 2600 hours of audio.

In order to ensure that this information can be delivered to all the student desktops simultaneously (i.e. smooth video and audio playback) Sanako strongly recommends the use of hardware RAID controllers on the server or the use of Network Attached Storage (NAS) devices.

Sanako also recommends that you take regular data back-ups. The use of a CD/DVD writer is also recommended to save student oral recordings and/or source material that are infrequently used. When this material is required it can be copied to the server from the CD archive.

INSTALLATION

At the time of installation, the installer needs to have Local Administrator user rights. Please note that in some configurations, Domain Administrator rights are not enough to install applications.

Computers where Study is installed must have a suitable way to access Sanako installation media. This can be e.g. a DVD-drive, a USB port which supports USB memory keys or access to a network location where Study installation files are placed.

SOFTWARE COMPONENTS

The following software components are always installed in all Study installations:

- **Sanako Study Server software**
Installed on either teacher or server computer
- **Sanako Study Tutor software**
Installed on teacher computer
- **Sanako Study Student software**
Installed on student computers

We recommend using classroom specific server computers, commonly the teacher computer in each class, with individual classroom names.

However, you may also use a shared license server for multiple classrooms. Please note that in this case the shared license server must be running in order to use any of the classrooms.

RECOMMENDED INSTALLATION ORDER

We recommend that the different components are installed in the following order:

1. Sanako Study Server software (on tutor or server computer)

2. Sanako Study Tutor software (on tutor computer)
3. Sanako Study Student software (on student computers)

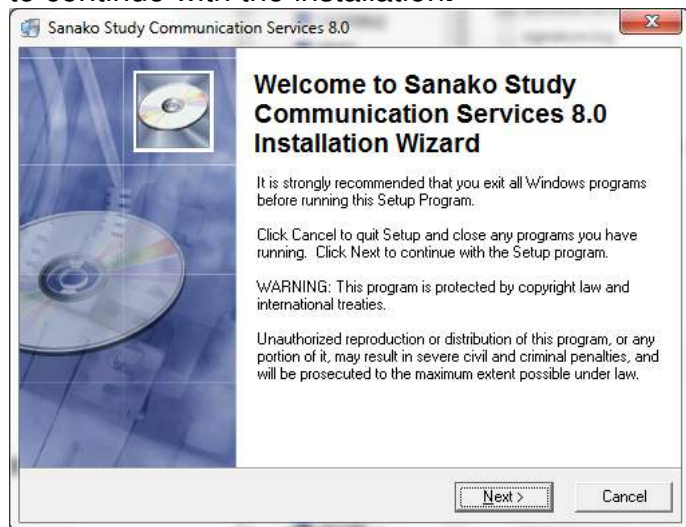
INSTALLATION INSTRUCTIONS

STUDY SERVER SOFTWARE INSTALLATION

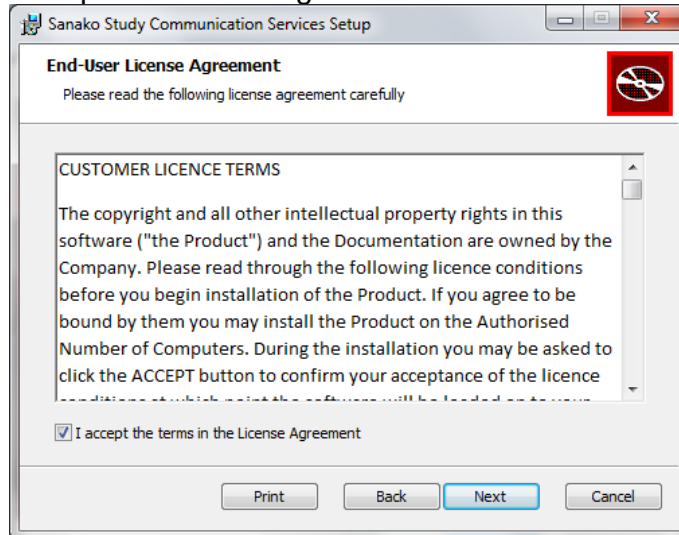
Follow the installation instructions below to install the Study Server software.

Note: Study Server installation requires an Internet connection. If the server computer does not have an Internet connection, you may complete an alternative offline activation procedure. Instructions for this can be found towards the end of this guide.

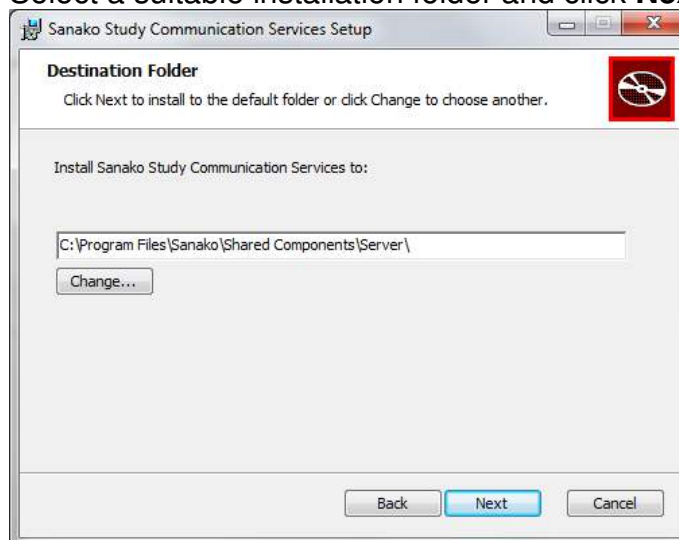
1. Select Sanako Study Server software in the Installation CD menu to start the installation program.
2. Exit any other programs you have open and click **Next** to continue with the installation.



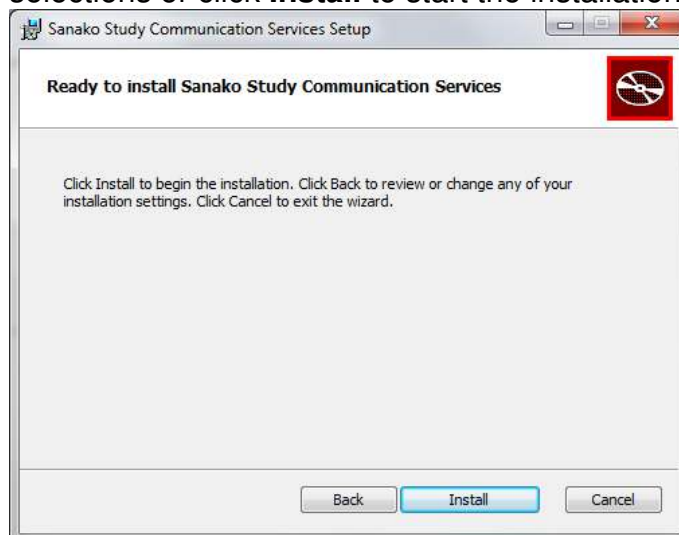
3. Accept the license agreement and click **Next**.



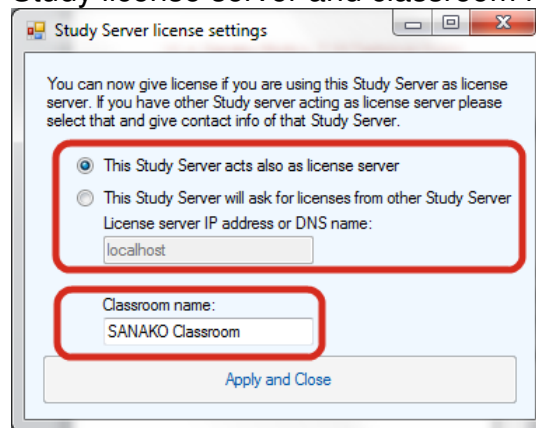
4. Select a suitable installation folder and click **Next**.



5. You can now go back and change any of your selections or click **Install** to start the installation.



6. The installation program will next ask you about the Study license server and classroom name.



LICENSE SERVER

If you only install one server for your Study system, select the '**This Study Server acts also as license server**' option.

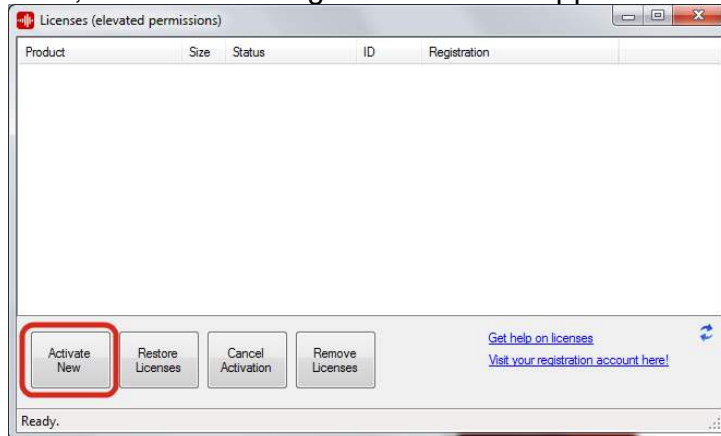
If you have multiple server applications in your institution, select the '**This Study Server will ask for licenses from other Study Server**' option and enter the name of the computer that has been selected as the license server.

CLASSROOM NAME

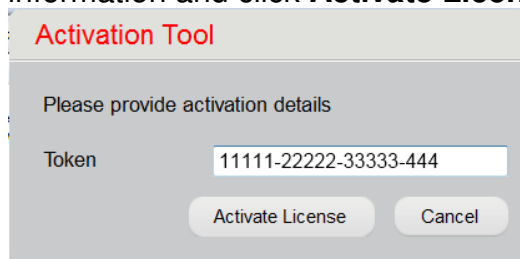
If you have only **one Study classroom** in your school you may use the default classroom name. If you have **multiple Study classrooms** then define a classroom name for the classroom in question.

Note: Classroom does not refer to a physical space here, but instead to a collection of computers in the school network that may be used in the same Study learning session.

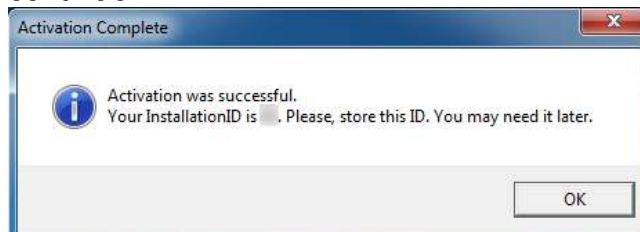
7. Next, a license management window appears.



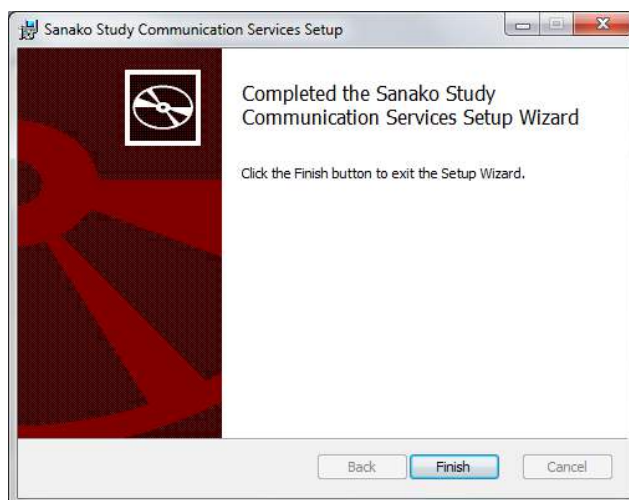
Click **Activate Token** and then enter your token information and click **Activate License**.



8. You have now successfully activated your software. Store the installation ID for future use. Click **OK** to continue.



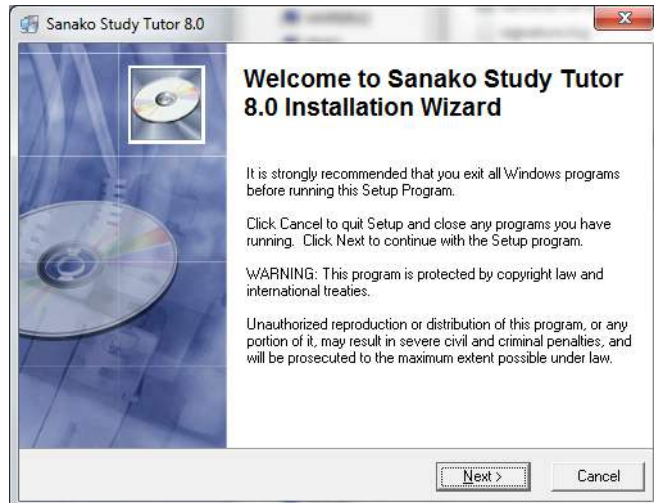
9. Once the installation program has finished, click **Finish** to exit the installation program.



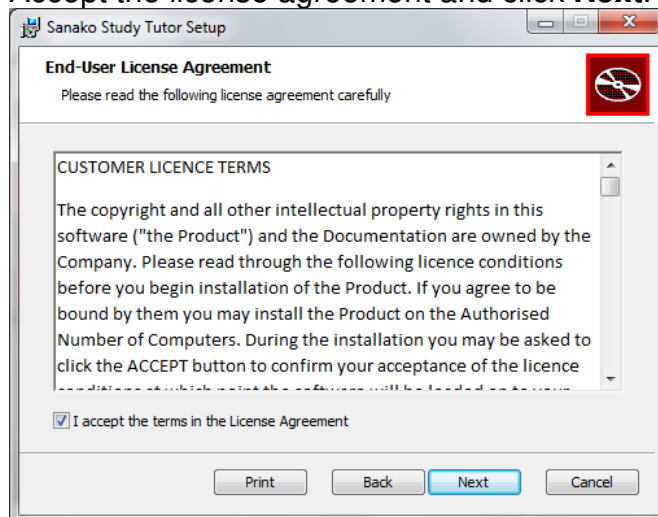
STUDY TUTOR SOFTWARE INSTALLATION

Follow the installation instructions below to install the Study Tutor software

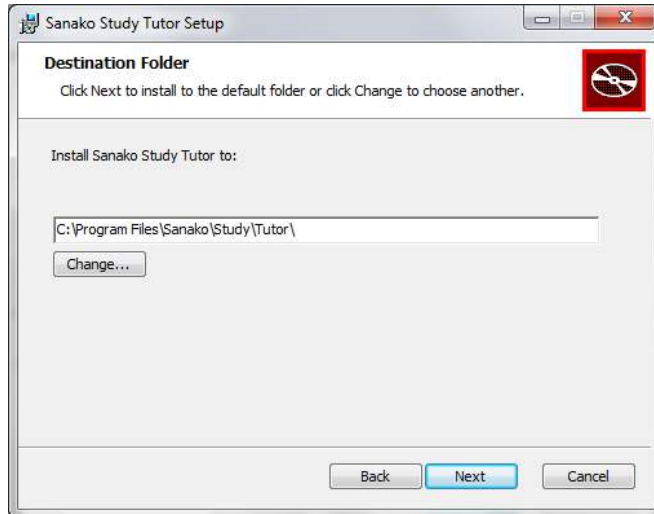
1. Select **Sanako Study Tutor Software** in the Installation CD menu to start the installation program.
2. Exit any other programs you have open and click **Next** to continue with the installation.



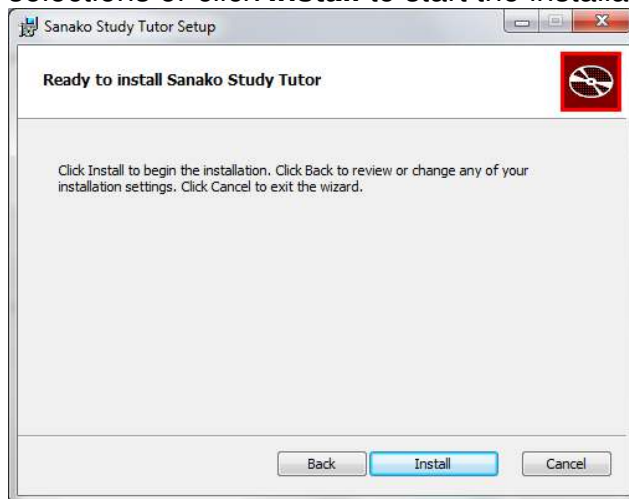
3. Accept the license agreement and click **Next**.



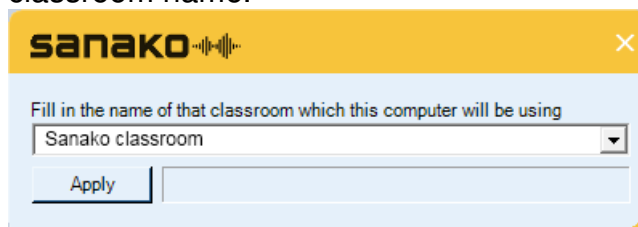
4. Select a suitable installation folder and click **Next**.



5. You can now go back and change any of your selections or click **Install** to start the installation.



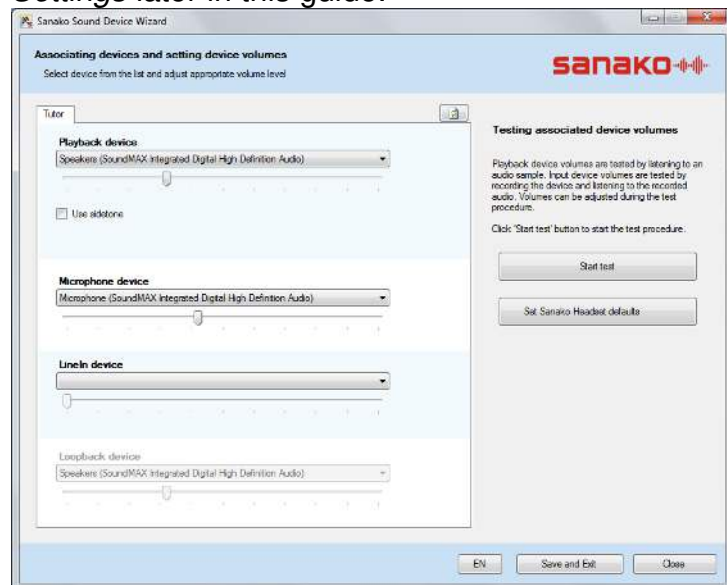
6. The installation program will next ask you to select a classroom name.



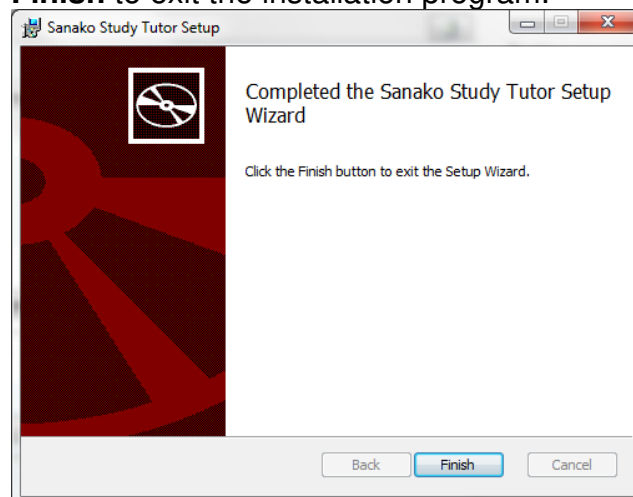
If you have only **one Study classroom** in your school you may use the default classroom name. If you have **multiple Study classrooms** then define a classroom name for the classroom in question.

Note: Classroom does not refer to a physical space here, but instead to a collection of computers in the school network that may be used in the same Study learning session.

- Next, you will be asked to set your default sound devices. This can also be done after the installation. For more information on the selections, see *Audio Settings* later in this guide.



- Once the installation program has finished, click **Finish** to exit the installation program.

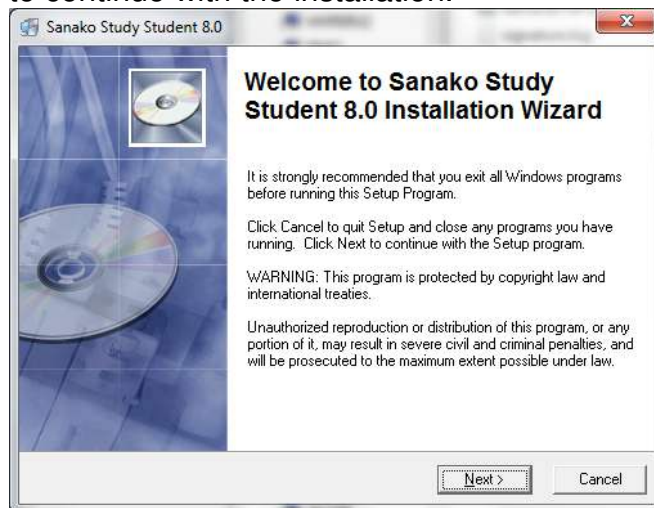


STUDY STUDENT SOFTWARE INSTALLATION

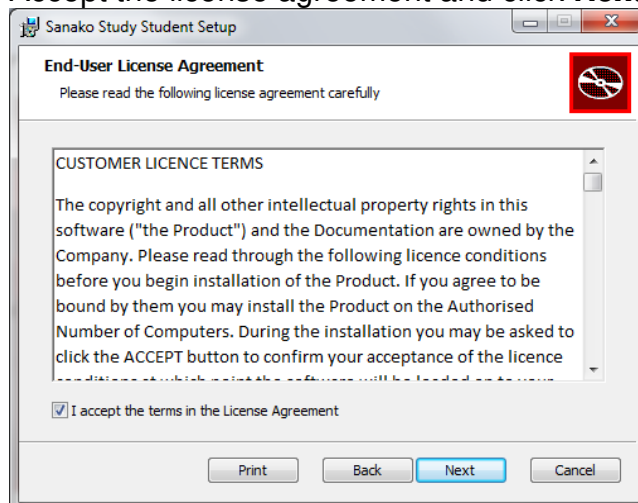
Follow the installation instructions below to install the Study Student Software.

- Select Sanako Study Student Software in the Installation CD menu to start the installation program.

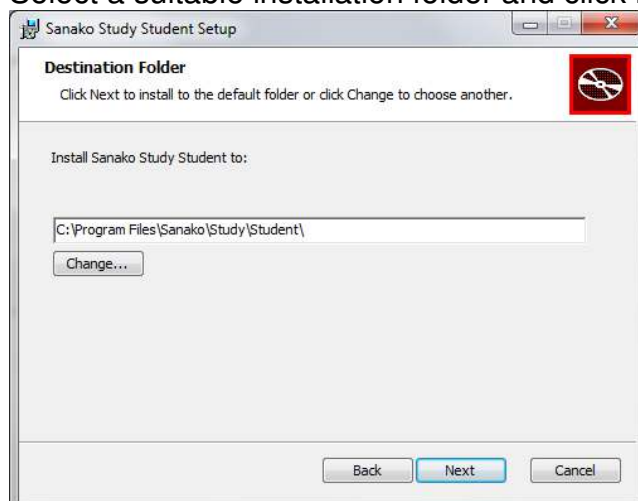
2. Exit any other programs you have open and click **Next** to continue with the installation.



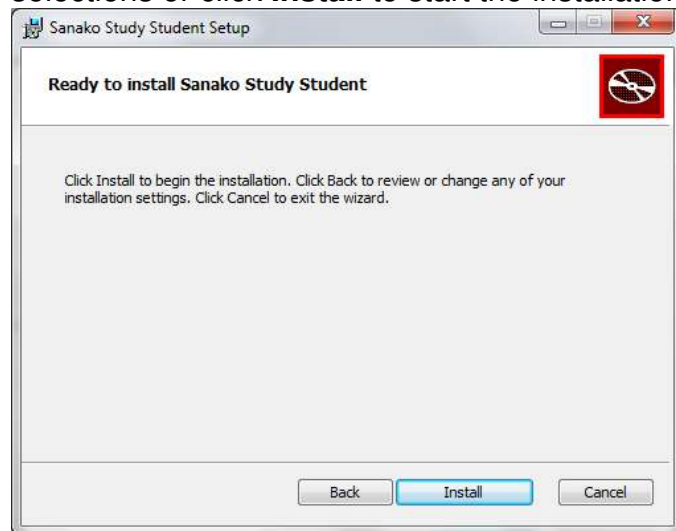
3. Accept the license agreement and click **Next**.



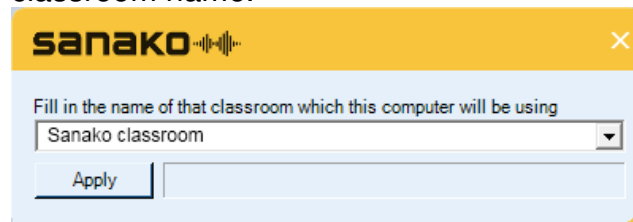
4. Select a suitable installation folder and click **Next**.



5. You can now go back and change any of your selections or click **Install** to start the installation.



6. The installation program will next ask you to select a classroom name.

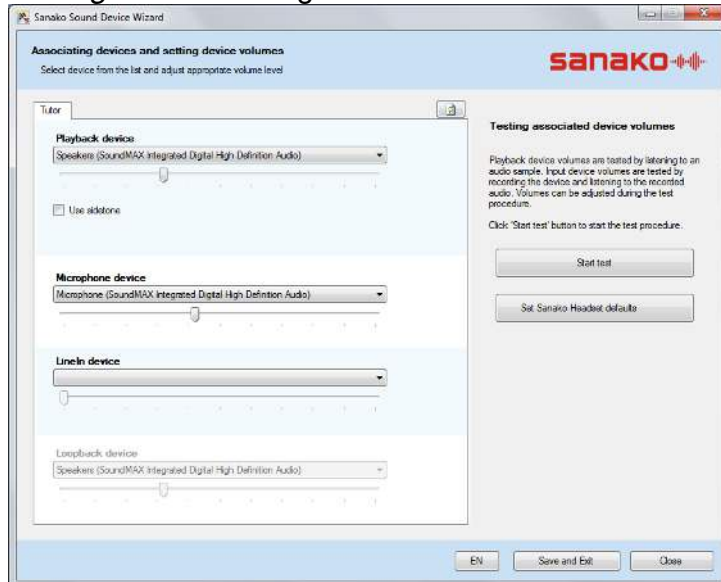


If you have only **one Study classroom** in your school you may use the default classroom name. If you have **multiple Study classrooms** then define a classroom name for the classroom in question.

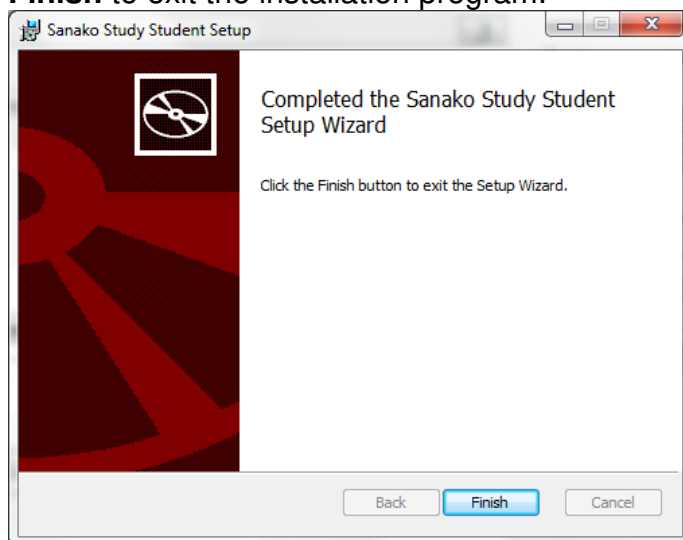
Note: Classroom does not refer to a physical space here, but instead to a collection of computers in the school network that may be used in the same Study learning session.

7. Next, you will be asked to set your default sound devices. This can also be done after the installation. For more information on the selections, see *Audio*

Settings later in this guide.



8. Once the installation program has finished, click **Finish** to exit the installation program.

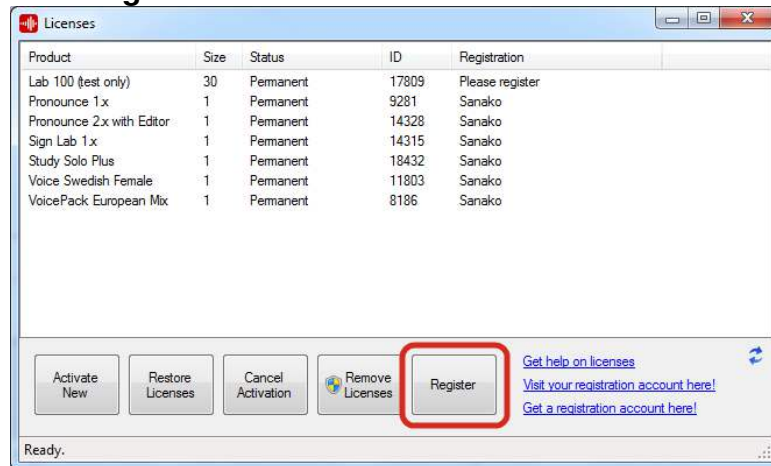


AFTER INSTALLATION – REGISTERING AND BINDING TOKENS TO ACCOUNT

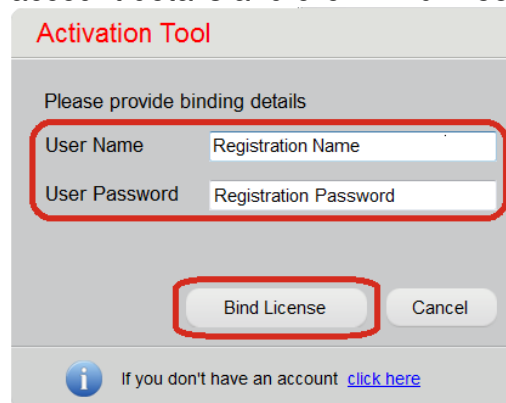
After you have completed your Sanako Study installation, we recommend that you register your software. This ensures that you will receive all product updates according to your software maintenance agreement.

Open your Windows **Start** menu and select **All Programs – Sanako – Licenses**.

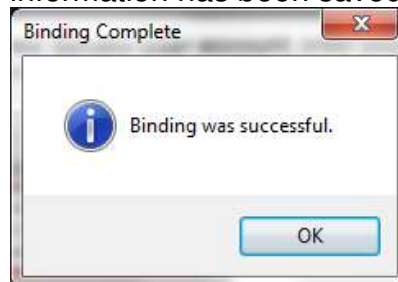
In the Licenses window, select your Study license and then click **Register**.



If you have a registered Sanako user account, enter your account details and click **Bind License**



This completes the binding process and your token information has been saved to your user account.



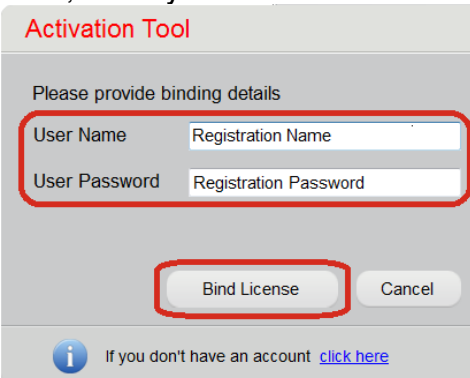
If you do not have a Sanako registration account, you need to create one in order to register your software. Click **Get a registration account here!** to enter account creation. Provide registration information to the fields and click **Save** to send in your information



The registration form is titled "Registration" and includes a language selector set to "English (United States)". It contains the following fields: First Name, Last Name, E-mail address (with a note "E-mail must be a .com e-mail address"), School or institution name, Street address (marked as optional), Postal code (marked as optional), City/State, and Country. At the bottom, there are two checkboxes: "I would like to receive Sanako news and product information to the e-mail address specified above" (checked) and "I would like to be contacted by Sanako representative" (unchecked). "Save" and "Cancel" buttons are at the bottom right.

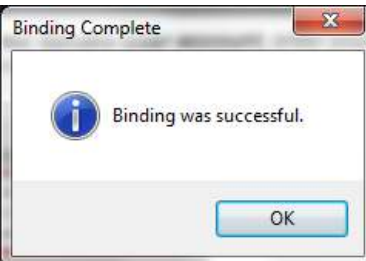
You will receive your username and password to the E-mail address provided during registration and a link to the login page of the Sanako registration system. Click the link to confirm your registration. Logging in is not required at this point, but you can do so at any time to edit your information.

Next, enter your account details and click **Bind License**



The "Activation Tool" dialog box prompts the user to "Please provide binding details". It contains two input fields: "User Name" with the value "Registration Name" and "User Password" with the value "Registration Password". A red rectangle highlights these two fields. Below them, another red rectangle highlights the "Bind License" button, with a "Cancel" button to its right. At the bottom, there is an information icon and the text "If you don't have an account [click here](#)".

This completes the binding process and your token information has been saved to your user account.



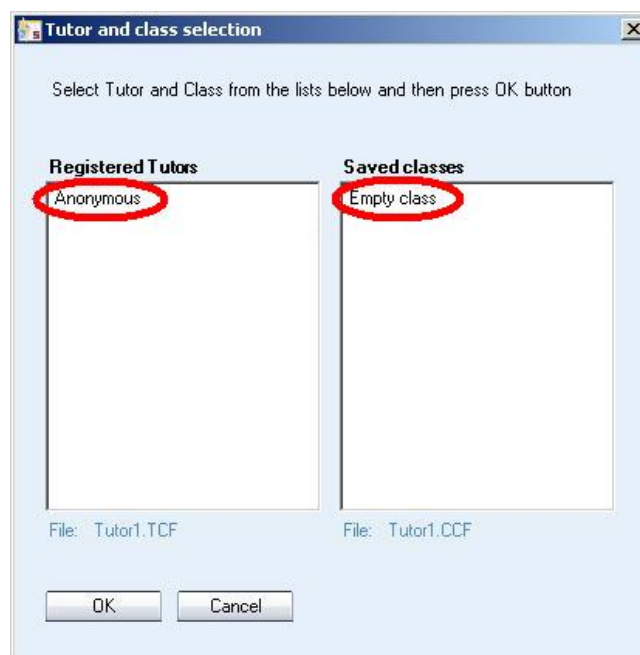
The "Binding Complete" dialog box features an information icon and the message "Binding was successful." An "OK" button is located at the bottom right.

STARTING STUDY

After the installation, you are ready to start Study. To start Study Tutor, open the Windows **Start** menu (lower left corner on your screen) and select **Programs > Sanako > Study > Tutor**, or double-click the Study Tutor icon on the teacher computer desktop.

SELECTING TUTOR AND CLASSROOM

After defining audio devices, you will next be asked to select a Tutor account and a class file to open Study with. When you start Study for the first time, select **Anonymous** tutor and **Empty class**, since no teacher accounts or class files have been created yet. This will start you with an empty default classroom.



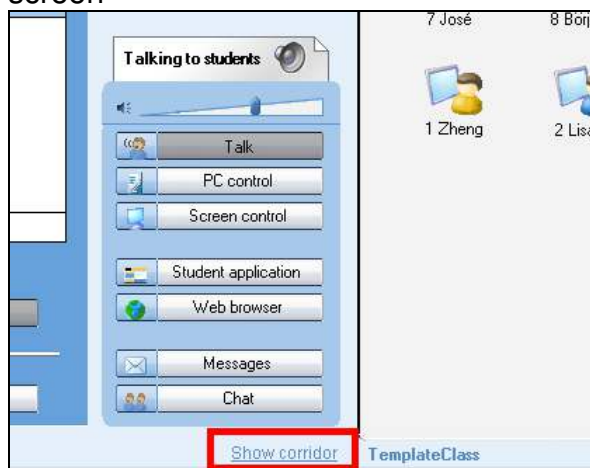
For instructions on how to create teacher accounts and class files, see *Tutor accounts and class files* later in this guide.

ADDING STUDENTS AND CREATING DEFAULT CLASS

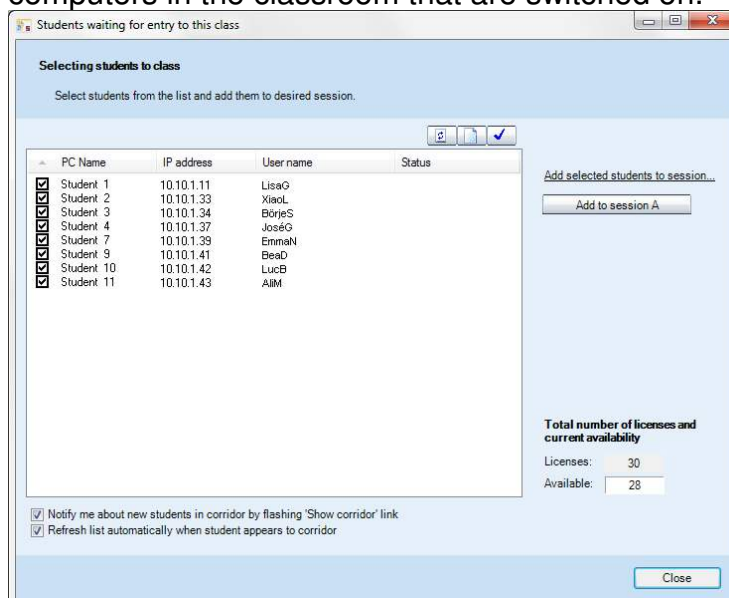
When you start the Tutor application for the first time, the main window of Study opens without any student icons. You can now add students to the classroom and create a default class layout.

To add more student workstations to the current classroom:

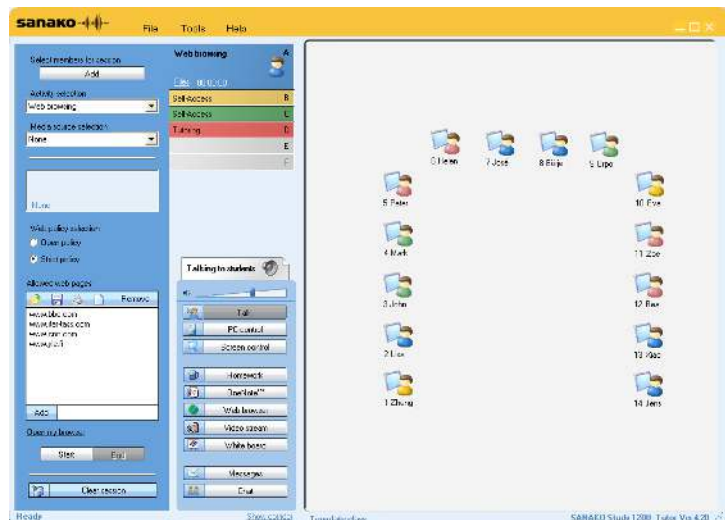
1. Click on **Show Corridor** at the bottom of the Tutor screen



2. This opens a dialog displaying all the student computers in the classroom that are switched on.

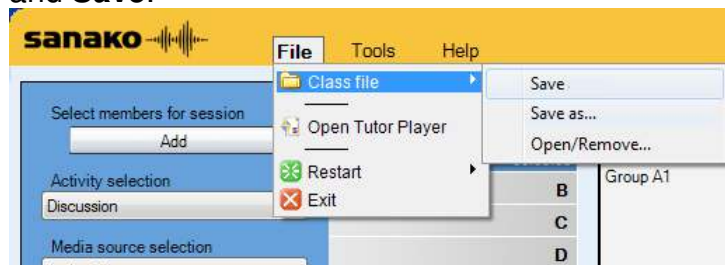


3. Select the students you want to add and click **Add to session A**, or if you want to assign them to specific sessions, click **Add selected students to session...**
4. The added students are now displayed on the classroom view.



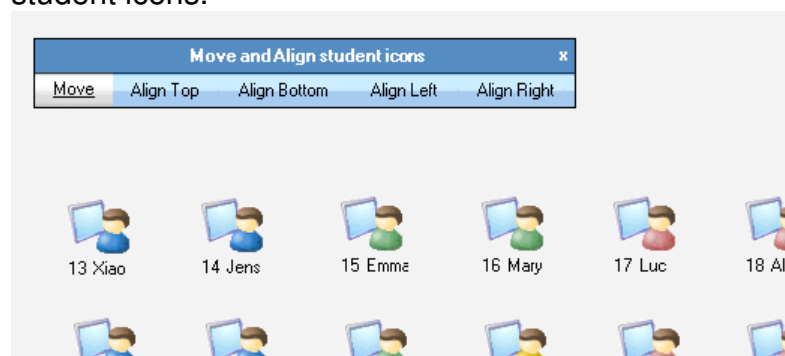
The Study class view is a graphical layout of your class. Your students are displayed as student icons that reflect their current status.

- To save the current classroom layout as the default class, open the **File** menu and then select **Class file** and **Save**.



MOVING AND ARRANGING STUDENT ICONS

You can rearrange the student icons on the layout to correspond with your actual classroom. Open the **Tools** menu and select **Admin – Move and align student icons...** to open a panel with commands for moving and arranging student icons.



To move a student icon, select **Move** and hold your mouse button down over the student icon.

To align student icons, select one of the alignment options, hold your mouse button down and drag the mouse pointer over the student icons that you want to align.

You can also move student icons at any time by holding down the Ctrl and Shift buttons on your keyboard and holding your left mouse button down over a student icon.

REMOVING STUDENTS

To move a student from the class back to the corridor, right-click a student icon and select **Send to corridor**. The student can then be selected to another class by another teacher.

To remove a student and the student icon from the class view, right-click a student icon and select **Exclude from class (and layout)**. Once the student icon is removed, the classroom configuration can be saved as a new class.

STARTING STUDY STUDENT

To open the Study Student interface on a student computer, click the Windows Start menu and select **Programs – Sanako – Study Student – Student**. The teacher can also at any time display the Student applications on student workstations by clicking on the **Student Applications** button on the Tutor interface.

Even if the Study Student application is not open on the student screen, it is always running in the background listening to commands from Study Tutor when the workstation is on.

AUDIO SETTINGS

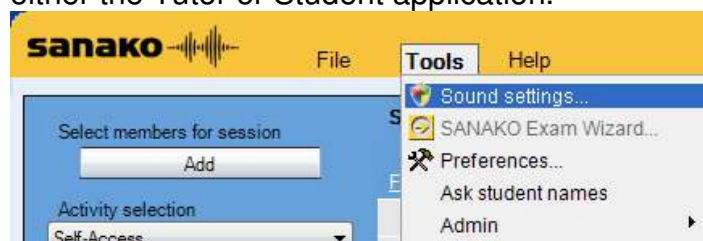
TESTING SOUND HARDWARE COMPATIBILITY

Sanako Study includes an inbuilt application for testing whether the sound hardware on a given computer is compatible with Study. To test your sound hardware compatibility, open the Tutor or Student **Tools** menu and select **Sound Hardware Test Wizard**.

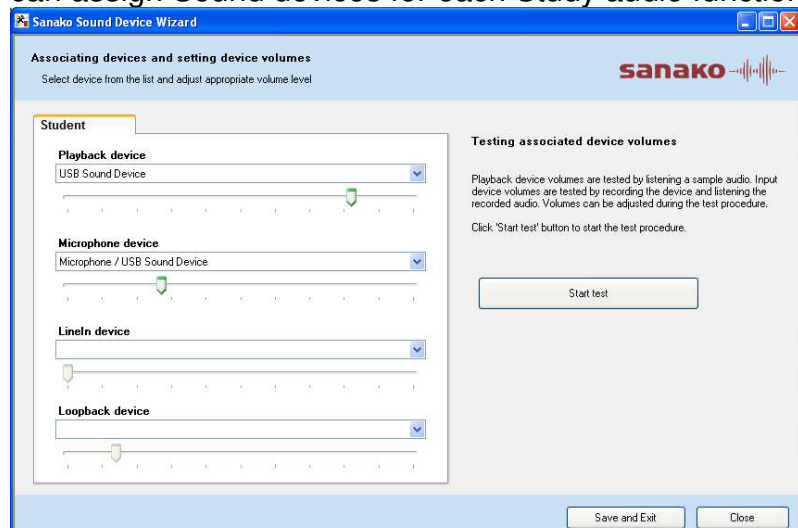
SOUND DEVICE SELECTION

Sound devices are commonly set when Study is started for the first time.

However, you can edit Study sound device selections at any time by selecting **Sound settings** in the **Tools** menu of either the Tutor or Student application.



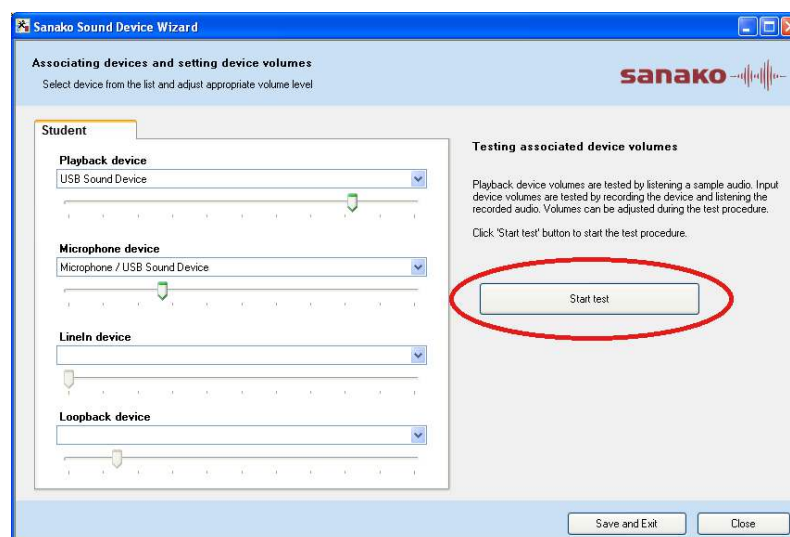
This opens the **Sanako Sound Device Wizard** in which you can assign Sound devices for each Study audio function.



When you are finished with the audio device selection, click **Save & Quit** to save your settings.

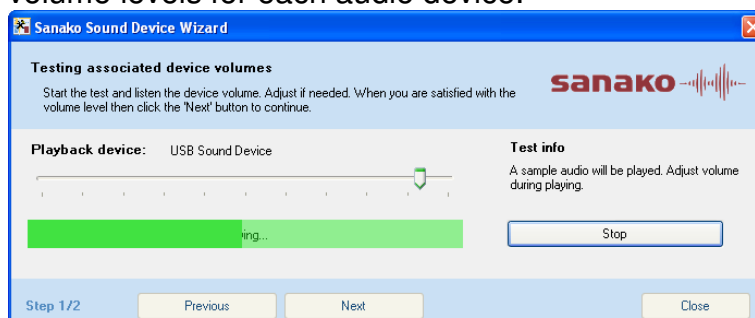
SETTING SOUND DEVICE VOLUMES

Study has an inbuilt audio testing procedure in **Sound Device Wizard** which allows you to identify and set default volume levels for Study functionalities.



To test and set default volume levels

1. Click **Start test**
2. Follow the instructions on the screen to play sample audio, make test recordings and define the default volume levels for each audio device.

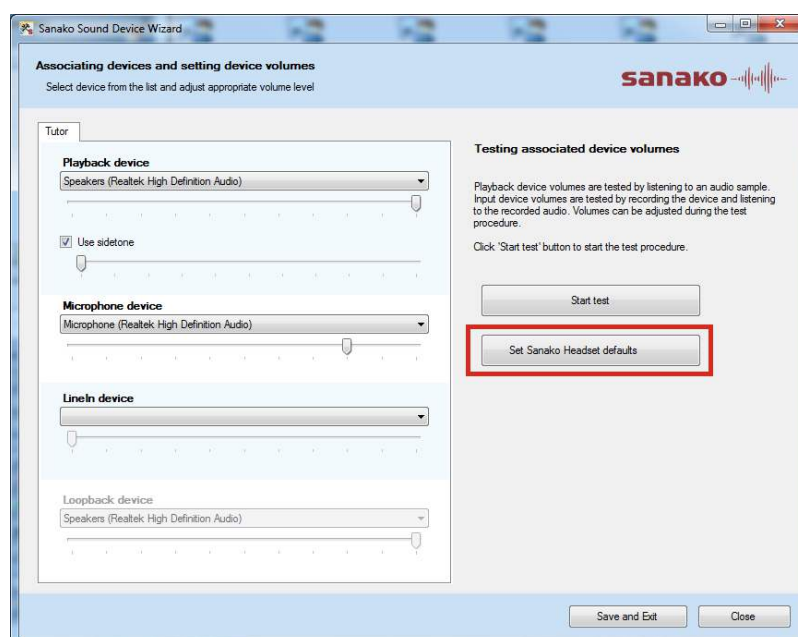


The default audio levels will be saved into a file which can be deployed to all the computers in the classroom. This allows you to equalize the audio levels for an entire classroom without running the testing procedure separately for each computer.

SETTING SOUND DEVICE VOLUMES FOR SANAKO HEADSET

If you are using Sanako SLH07 USB headsets, Study has inbuilt default audio settings that you can easily apply. Simply click on '**Set Sanako Headset defaults**' to employ

audio settings that have been preconfigured for use with a Sanako headset.

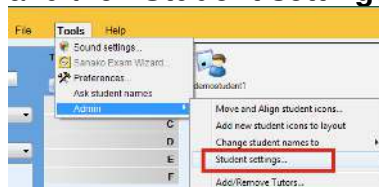


HOW TO COPY STUDENT AUDIO SETTINGS

Sanako Study allows you to automatically equalize all the student audio settings in a Study classroom, eliminating the need to configure each workstation individually. To do this you need to first carefully adjust the audio settings of one Study player application. These settings will then be copied to all the other player applications.

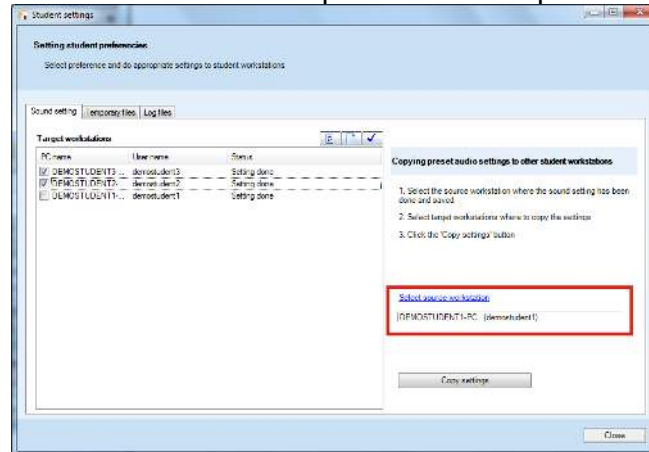
To copy student audio settings to other workstations, follow the instructions below.

1. Open the **Tools** menu in Study Tutor, select **Admin** and then **Student settings**.

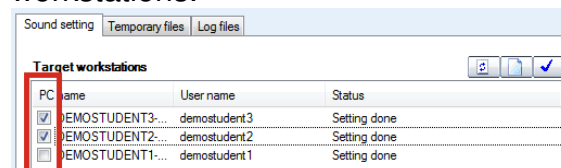


2. In the **Student settings** window, you need to first select the source computer whose audio settings will be shared. Click on **Select source workstation** and

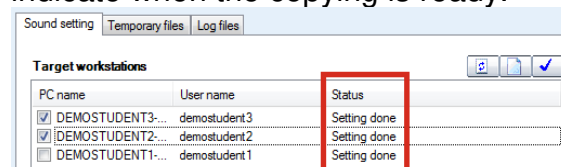
select the source computer in the drop-down list.



3. Next, **check the workstations** where you want to copy the audio settings. If the settings will be copied to the entire classroom, click ☒ to select all workstations.



4. Once you have selected the target workstations, click **Copy settings**, the workstation list on the left will indicate when the copying is ready.



5. When the settings have been copied to the desired workstations, click **Close** to exit the settings window.

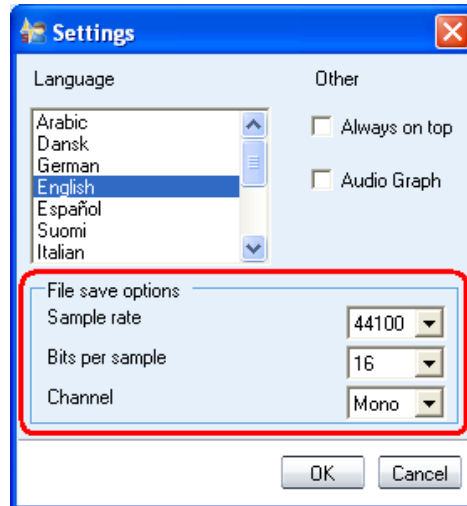
USING A MEDIA PLAYER AS SOURCE

If a Media Player application is used as the media source in Study, 'overlays' need to be disabled in the media player.

To disable overlays in Windows Media Player, select **More Options** under **Library**. In the **Options** window, select the **Performance** tab and click **Advanced** under **Video Acceleration**. In the **Video Acceleration Settings** window unselect the **Use overlays** option.

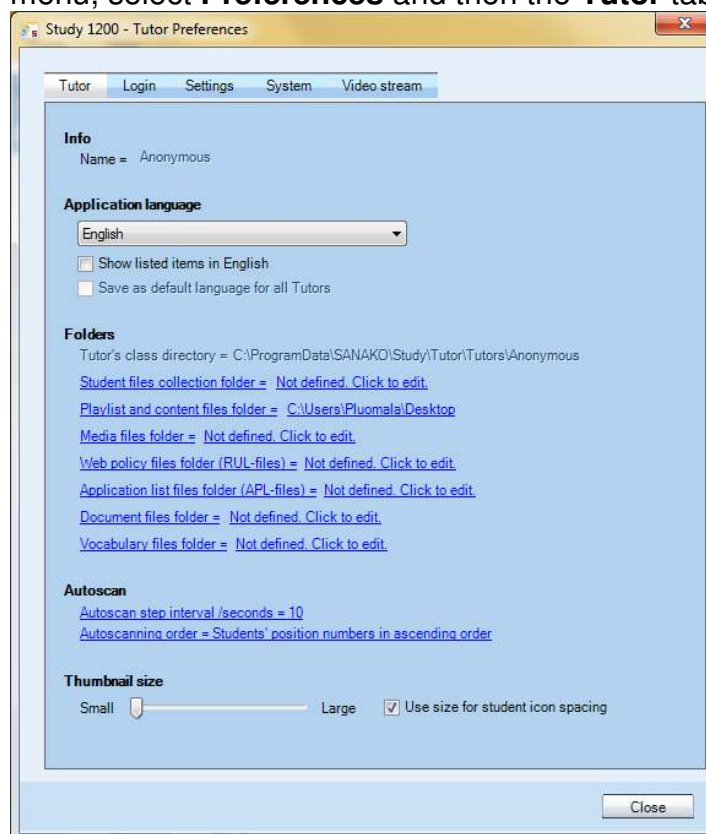
SETTING DATA PROPERTIES FOR SAVED AUDIO FILES

To set data properties for saved student recordings, open the Student **Tools** menu and then select **Settings**.



CONFIGURING FOLDERS

Many Study functionalities require that you define a default file folder for them where functionality specific files are then stored. All these folders can be configured in Study Tutor Preferences. To edit default folders, open the Study **Tools** menu, select **Preferences** and then the **Tutor** tab.



It is recommended that all these folders are located in a separate file server, However, the Tutor's class directory folder can also be located on the local teacher computer.

The table below provides information on the folders and their access rights:

Folder	Purpose Of The Folder	Teacher Access Required	Student Access Required
Tutor's class directory	Storage area for teacher's class files	Read/Write/Modify	No Access Required
Student files collection folder	Collecting student recordings	Read/Modify	Hidden Write
Playlist and content files folder	Sharing teaching content. Subfolders for sessions A,B,C,D,E,F and Tutor will be created under this folder	Read/Write/Modify	Read
Media files folder	Storage area for different media source files, which can be used during teaching activities	Read/Write/Modify	Read
Web policy files folder	Saving Web policy files, which are used during the Web browsing activity	Read/Write/Modify	No Access Required
Application list files folder	Storage area for lists of denied and allowed applications which are used in the Block applications function	Read/Write/Modify	No Access Required
Document files folder	Storage area for document files which are used during the reading practice activity	Read/Write/Modify	Read
Vocabulary files folder	Storage area for Vocabulary tests	Read/Write/Modify	No Access Required
Exam test files folder*	Storage area for exam files, which are used during the Exam activity	Read/Write/Modify	Read
Exam result files collection folder*	Collecting exam result files from students during the Exam activity	Read/Modify	Hidden Write

*These folders are needed only if Sanako Study Examination Module has been installed

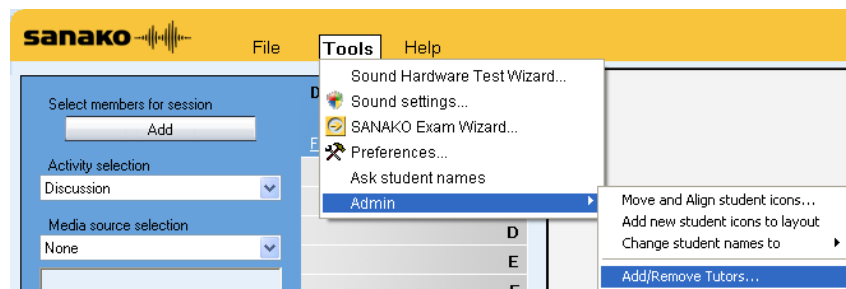
TUTOR ACCOUNTS AND CLASS FILES

The purpose of tutor accounts and class files is to allow each teacher to start the system with their own default settings and with a pre-set classroom layout for each different course, if needed.

Each teacher has a personal tutor configuration file with their preferences but can employ multiple class files. When teachers open the Study Tutor application they need to select their own tutor name and the class file that they want to use.

ADDING A NEW TUTOR

In order to add a new tutor to Study, open the **Tools** menu and then select **Admin** and **Add/Remove Tutors...**

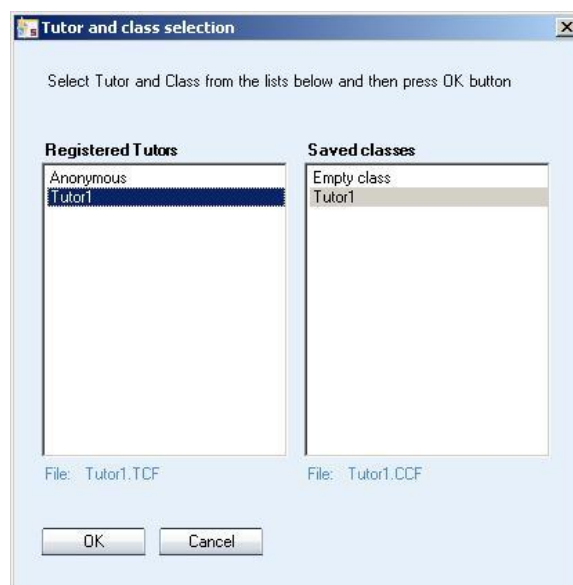


You can now enter a new tutor name that will be available when logging into the Study Tutor application. To set the folder where the new tutor's class files are saved, click on the **Browse** button.



After a new tutor has been added to the system, a tutor specific Tutor Configuration File (.TCF) is created automatically by the system.

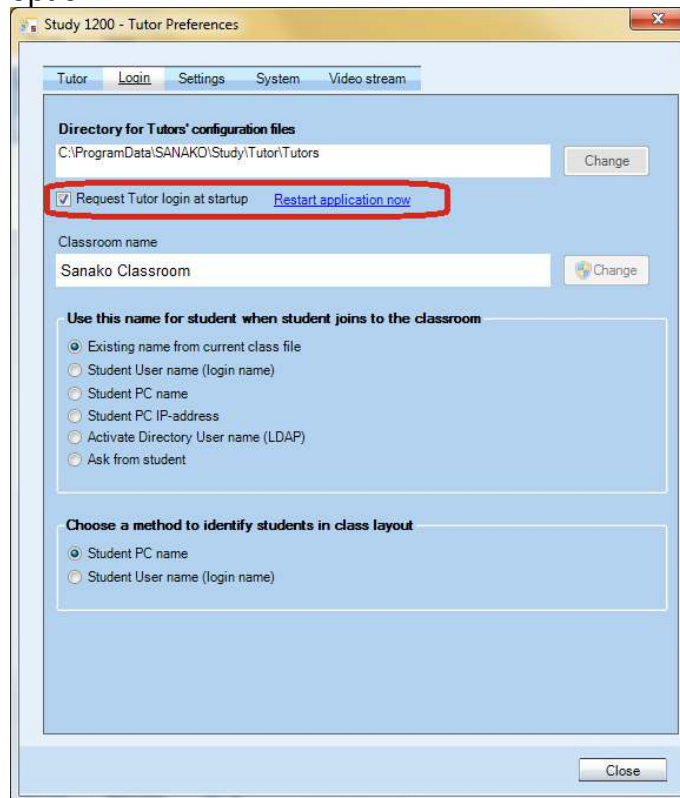
When you have entered a tutor name and defined a folder for the tutor's class files, click on **Save** and then exit the Study application. When the Study application is restarted, the new tutor name is available in the log in window.



DISABLING TUTOR LOGIN

If you do not want to use personal tutor accounts, you can disable tutor login. This means that Study will simply be opened with the default classroom layout and tutor settings every time.

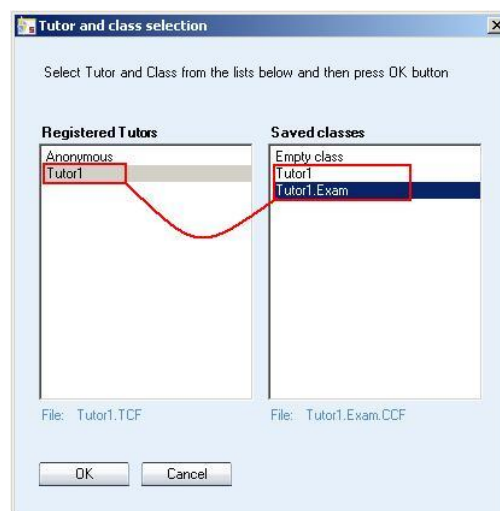
To disable Tutor login, go to **Tools > Preferences > Login** tab and uncheck the **Request Tutor login at start-up** option.



CLASS FILES

Class files include the **classroom layout**, **student names**, **sessions** and **default activities**.

Each Tutor can own multiple personal class files (.CCF) and can select which class file they want to use when logging in.

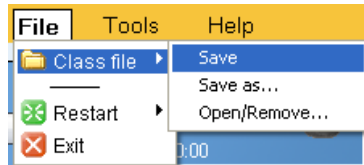


Tutors can also manually **open**, **save** and **remove** class files by opening the **File** menu and selecting **Class file**.

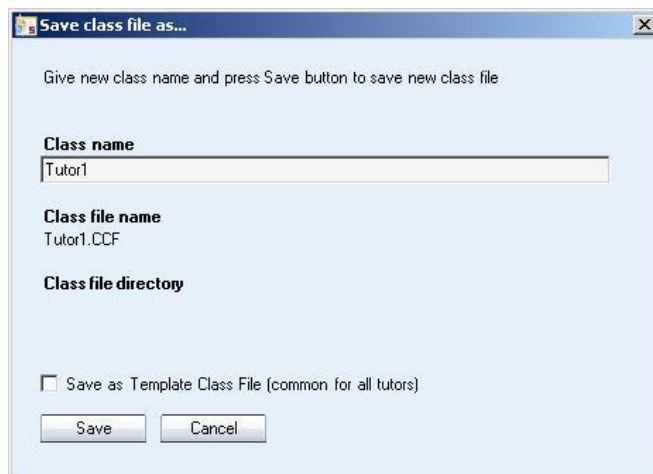


CREATING A NEW CLASS FILE

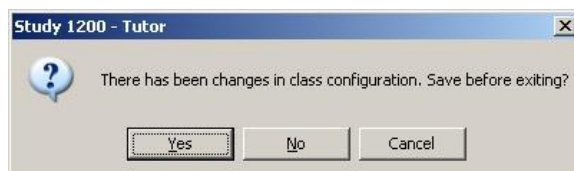
To save the current classroom settings as a new class file, open the **File** menu and select **Class file > Save**.



This opens a window where you can name the class file and then save it. If you save the file as a **Template Class File**, the class file will be available for all tutors when they log in.

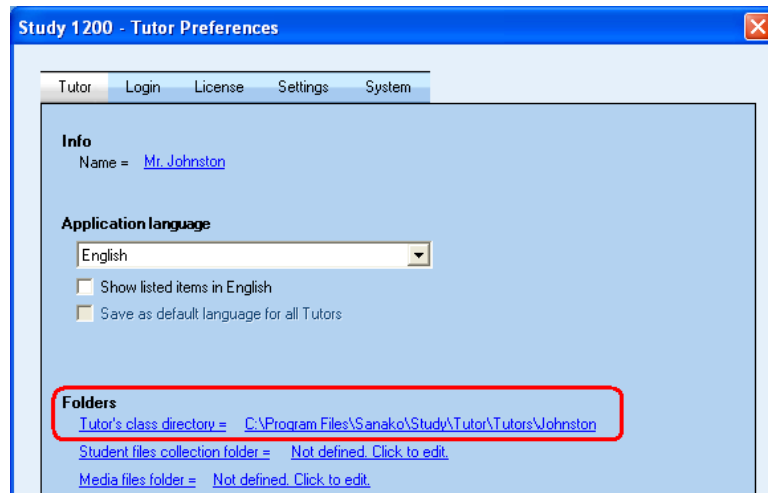


If changes have been made to the classroom settings during a lesson, Study will automatically ask you whether you want to save the changes to the current class file when the Tutor application is closed.



SAVE LOCATION FOR CLASS FILES (.CCF)

To set the location where the Class Files are saved, open the **Tools** menu and select **Preferences** and then the **Tutor** tab.



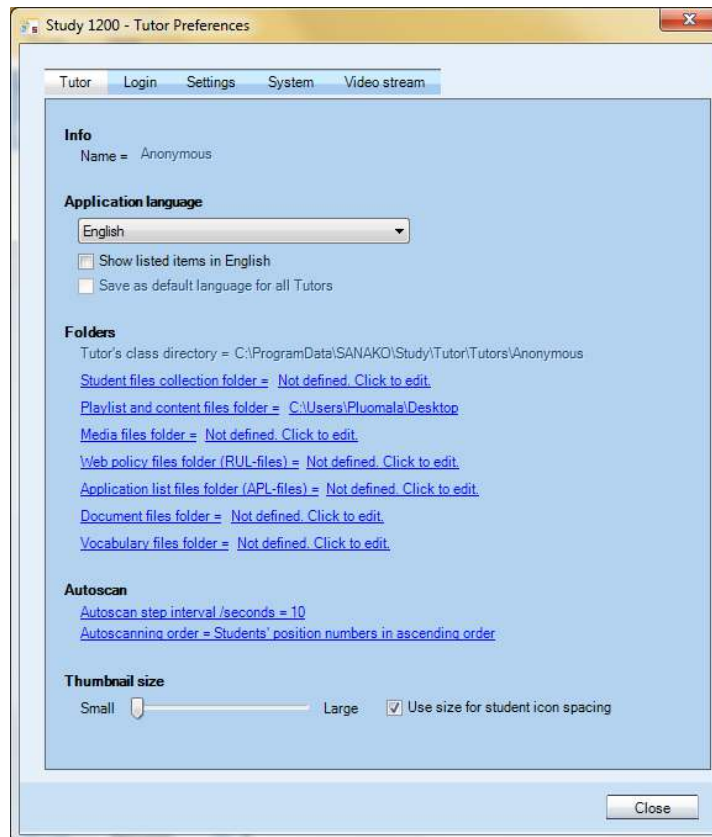
TUTOR SPECIFIC SETTINGS

Tutor configuration files contain the personal settings of each tutor, including:

- Tutor name
- Save folder for class files (.CCF)
- Interface language selection
- Session file folder
- Student file collection folder
- Program shortcuts for application launch
- Last used class file
- Auto scan interval
- Auto scan order
- Thumbnail size

Each tutor has their own Tutor configuration file (.TCF) which is created when a new tutor is added into Sanako Study.

Most Tutor specific settings are available under the **Tutor** tab in the Tutor application **Preferences**. To open the Preferences window, start the Tutor application and then open the **Tools** menu and select **Preferences**.



APPLICATION LANGUAGE

Determine the Tutor interface language. The default selection for the interface language is English. Additional interface languages can be selected in the drop down menu.

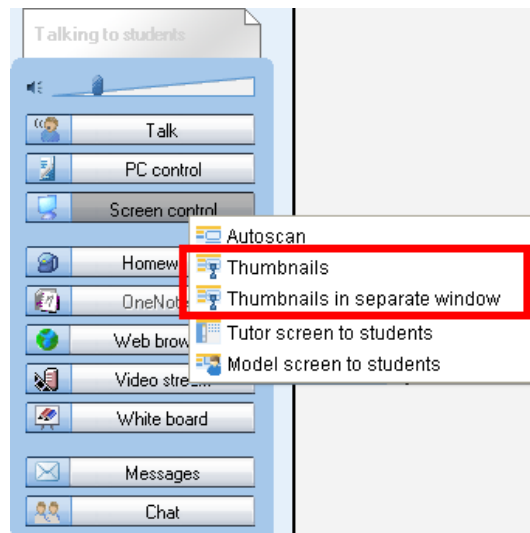
AUTOSCAN

Set the default time that each student screen is displayed during the autoscan function and select the order in which the student screens will be shown.

THUMBNAIL SIZE

Use the slider to determine the size of thumbnail images of student screens.

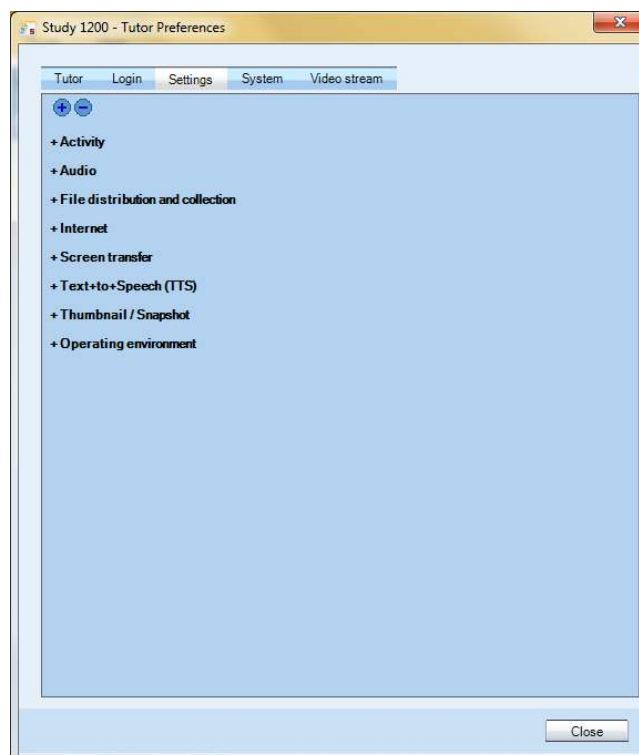
To view thumbnail images of student screens either in place of the student icons or in a separate window, click the **Screen Control** button and select either **Thumbnails** or **Thumbnails in separate window**.



GENERAL SETTINGS

GENERAL SETTINGS

You can set general settings for different Study functions in the **Settings** tab of the Tutor **Preferences** window.



ACTIVITY

The screenshot shows the 'ACTIVITY' configuration window. At the top, there are window control buttons. Below them is a section titled '- Activity' with a checkbox for 'Tutoring: Do not minimize Tutor window when activity is started'. Underneath is a list of 'Available session activities' with checkboxes for each: AP Exam, TEM4 Oral test, TEM8 Oral test, CityCompass, Content Exercise, Discussion, Exam, Listening Comprehension, Model Imitation, Pronunciation, Reading Practice, Round Table Discussion, Telephone, Tutoring, Web Browsing, and Vocabulary Test. The bottom of the window has a blue bar with a '+ Audio' button.

Tutoring – Select whether to minimize the Tutor application when the Tutoring activity is started and the Tutor screen is transferred to students.

Available session activities – Select which activities are displayed in the Activity selection list in the Tutor application. This allows you to configure the list so that only the activities that are actually used are visible.

AUDIO

The screenshot shows the 'AUDIO' configuration window. It has a blue header bar with '+ Activity' and a blue footer bar with '+ File distribution and collection'. The main area is titled '- Audio' and contains several settings: checkboxes for 'Stream Tutor media files' and 'Stream student media file while monitoring'; radio buttons for 'Monitor input line = StereoMix' (selected) and 'Monitor input line = Microphone'; a checked checkbox for 'Use Custom Settings for Voice Activity Detection (VAD)'; a 'Voice Activity Detection (VAD)' section with 'On' and 'Off' radio buttons (selected) and a 'VAD Sensitivity' slider; and a link 'Tutor player = TutorPlayer.exe'.

Stream Tutor media files means that when a file is used as the audio source to students, the audio is sent as a VOIP stream instead of the students opening the file.

There are two different ways of monitoring student audio in Study:

If **Stream student media file while monitoring** is selected, the student audio is streamed to the teacher as a VOIP stream during monitoring. The teacher will hear the student's microphone and any media file that the student may be listening to.

Note: Student microphone cannot be monitored during an activity, if the media source is Tutor player, CD audio or an External source.

If **Monitor input line** is selected the mixer audio lines are monitored and you can choose what you'll be able to hear when monitoring students. **Stereomix** allows you to hear whatever the student hears. **Microphone** means you will hear the student microphone during monitoring.

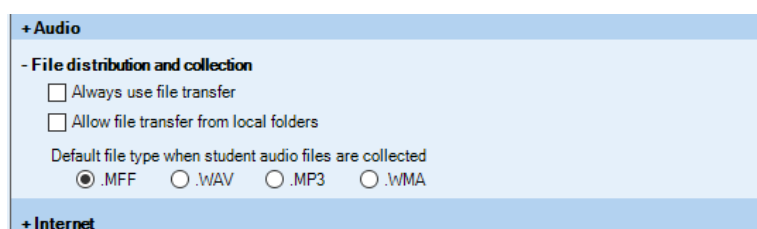
Note: Regardless of the selected option, if students are monitored while they are recording their voice, only the student voice can be heard.

Voice Activity Detection is used to identify when users are speaking into their microphone. Properly adjusting the sensitivity of Voice Activity Detection may help prevent unnecessary audio transmission and improve audio performance. If Voice Activity Detection is adjusted in the Tutor settings, the new setting is automatically employed in all student workstations in the Study classroom.

Check the **Use Custom Settings for Voice Activity Detection** option to override the operating system default setting and manually adjust **Voice Activity Detection sensitivity** and to switch **Voice Activity Detection On or Off**.

Tutor Player allows you to define the default teacher media player application.

FILE DISTRIBUTION

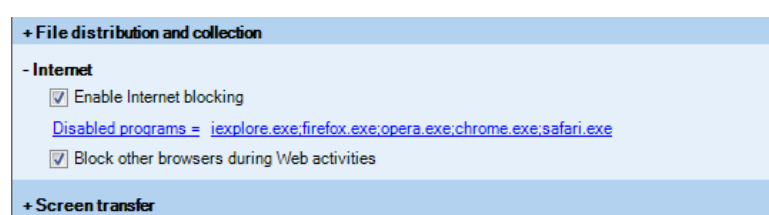


Always use file transfer means that any files that are opened to students are always copied for them as local copies instead of file streaming. This includes using files as the media source and the functions in the file areas. Using file transfer allows you to use materials that are located outside student access, for example, files on network folders, including those mapped with UNC paths, or the teacher computer.

Checking the **Allow file transfer from local folders** option will allow the teacher to open files to students from any local folder, for example on the teacher computer. The students do not need access rights to the folder, since the launched file will be copied to the student computer instead of file streaming. This includes using files as the media source and the functions in the file areas. Please note that this feature does not allow file transfer from folders mapped with UNC paths.

Default file type allows you to select the default file format that is used for collected student recordings.

INTERNET

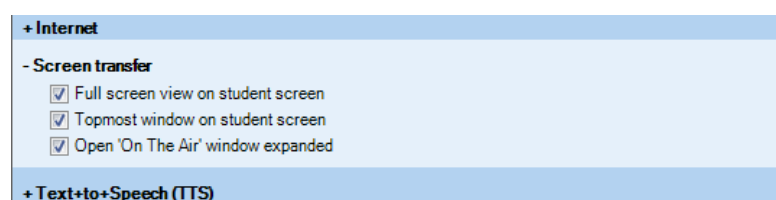


The Internet options allow you to block Internet ports and Web browsers.

Enable internet blocking allows the teacher to use the Disable Internet function in the Tutor application PC Control features to disable all Internet traffic on student computers.

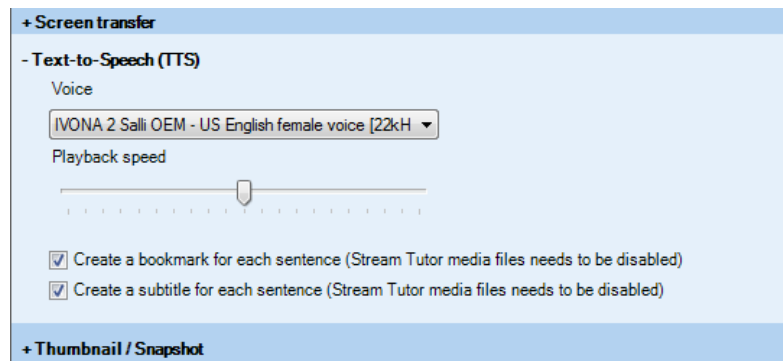
Block other browsers during Web activities allows the Web browser applications opened by the teacher, but prevents students from opening any other browser applications.

SCREEN TRANSFER



The Screen Transfer settings apply when a Tutor or Student screen is shared to others.

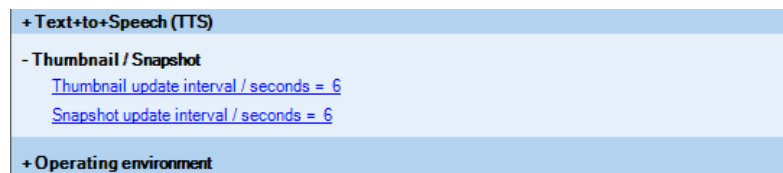
TEXT-TO-SPEECH



Text-to-Speech (TTS) allows you to set default settings for created Text-to-Speech files.

- Select the **playback voice** for the created audio file. Multiple voices and languages are available from your local Sanako representative.
- Adjust the **playback speed**, slower speed may help students distinguish sounds.
- Select whether each sentence will be marked with a **bookmark** in the audio file. This may help students to navigate the material.
- Select whether the text will be displayed as **subtitles** during playback to help comprehension.

THUMBNAIL / SNAPSHOT



Set the default time for updating thumbnails and snapshots of student screens.

WLAN



Disabling screen transfer operations will deactivate all screen transfer features in Study. This is beneficial in wireless environments where using the screen transfer operations could slow the system down.

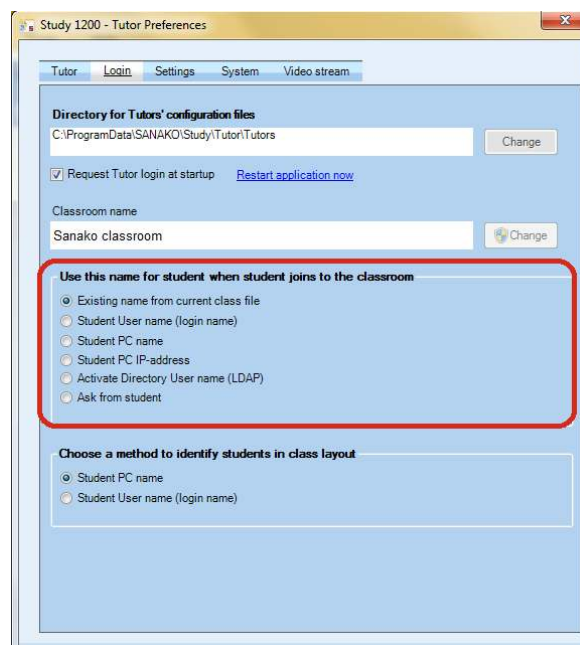
Network connection type allows you to define the type of network Study is used in. This helps the program configure itself for optimal performance.

Unicast allows you to select the transmission method for the Study system to correspond to your network environment. By default, Study uses Multicast transmission and the selection is unchecked. Selecting Unicast transmission can sometimes help in challenging environments as it provides more secure, although sometimes slower, delivery.

IDENTIFYING STUDENTS

DEFAULT STUDENT NAMES

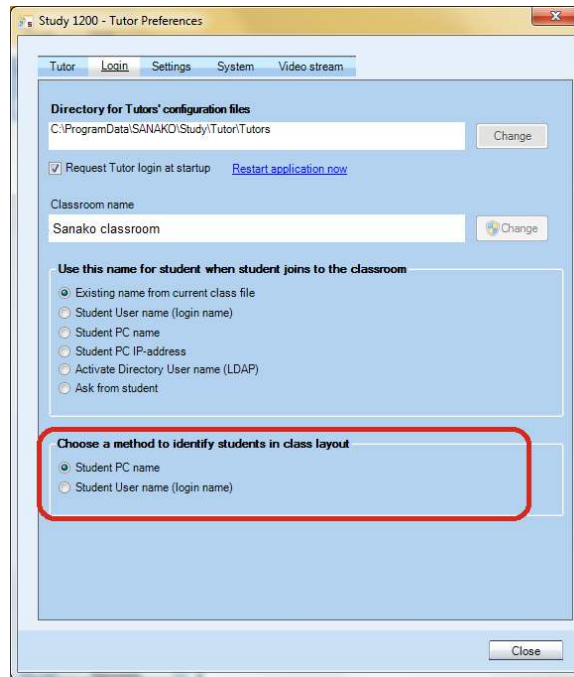
You can choose a default option for naming students in the Study classroom view in Tutor **Preferences** in the **Login** tab.



All students that join a classroom are automatically named according to the selection made here. However, loading a saved class file will instead use the names saved in the class file.

IDENTIFYING STUDENT COMPUTERS

You can choose a default option for identifying individual student computers that join the Study classroom in Tutor **Preferences** in the **Login** tab.



There are two options for identifying student computers that will be added into a Study classroom.

- **Student PC name** (default option) will identify all computers with a different computer name as individual students and add a new student icon for each student computer. This is the recommended setting in all environments where students operate individual student computers.
- **Student User name** will add a student icon for each different student login name that enters the Study classroom. This setting is usually only used in settings where multiple students share a workstation.

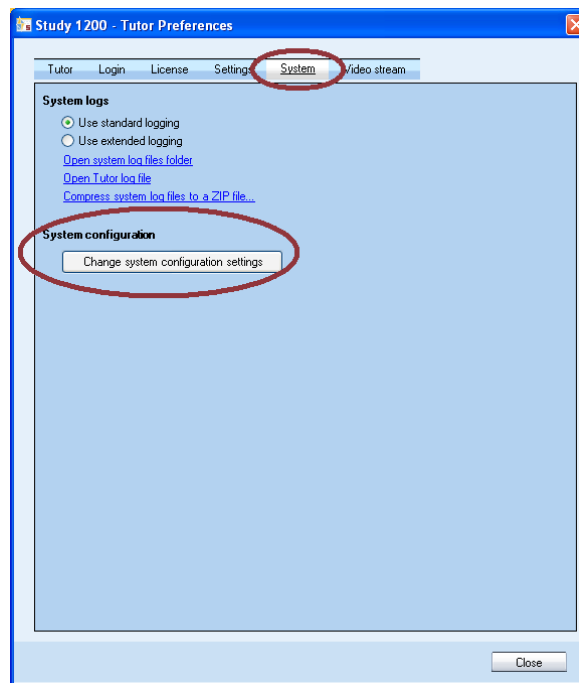
SYSTEM CONFIGURATION SETTINGS

Sanako Study system configuration settings allow you to

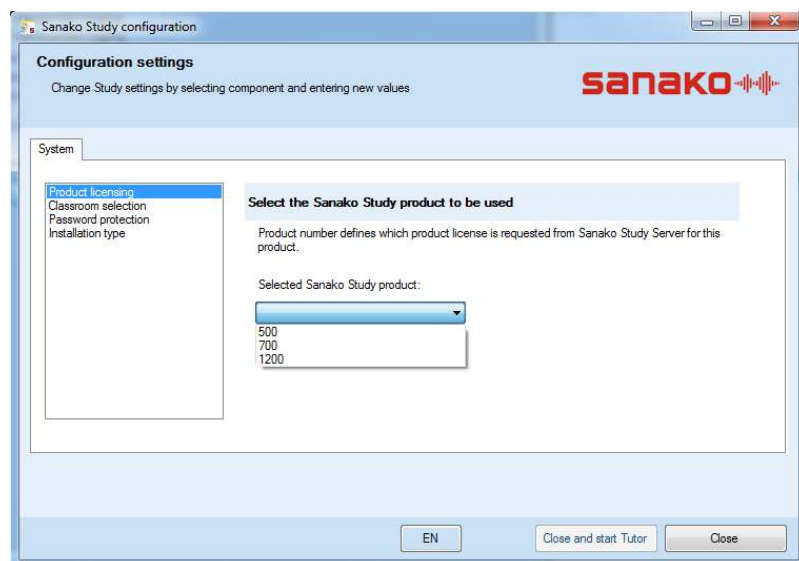
- View available licenses

- Edit classroom selections
- Set password protection for the Tutor application
- Change your installation type

To access system configuration settings, open the **Tools** menu in Study Tutor and select **Preferences**. In the preferences window select the **System** tab, click the **Change system configuration settings** button and click **OK**.



This opens a Sanako Study configuration window where you can manage the above information.

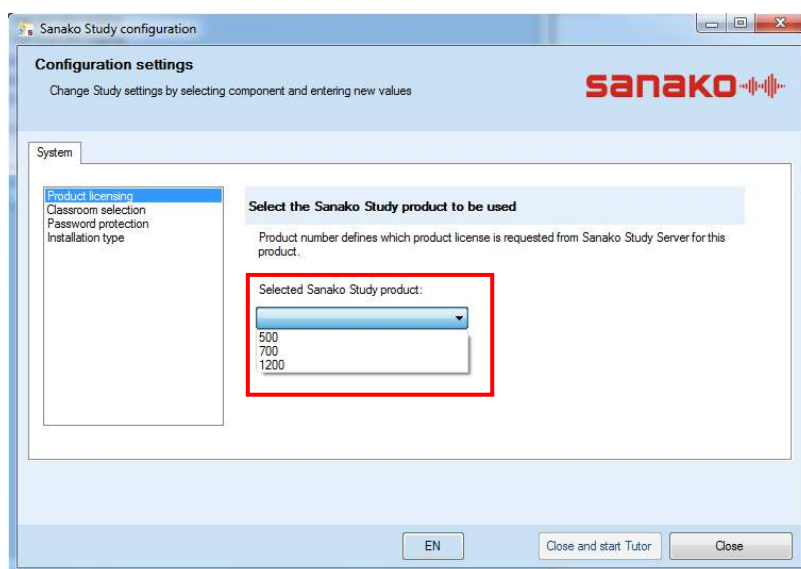


LICENSE QUERY

Study asks you to enter your license information during the Study Server application installation. Depending on your license information, you can select which Study version to query from the Study Server

CHANGING ACTIVE PRODUCT LICENSE

1. In the **Sanako Study configuration** window, select **Product licensing** and then choose which license to query from the server.

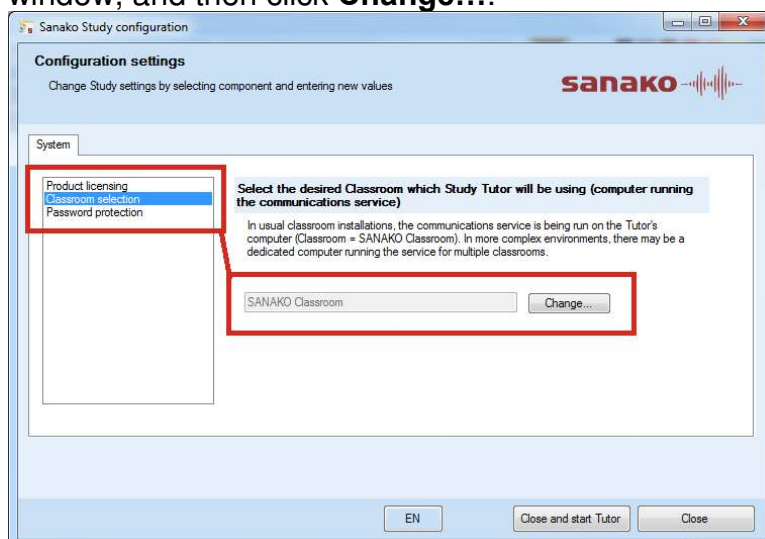


EDITING CLASSROOM NAMES AFTER INSTALLATION

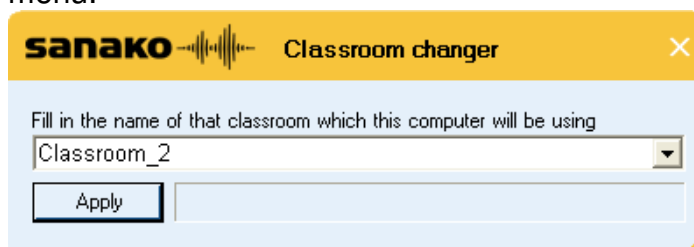
The classroom that Study computers belong to is set during the installation. However, you can change the classroom affiliations of tutor and student applications after the installation.

To change the Tutor application classroom, select **Classroom selection** in the **Sanako Study configuration**

window, and then click **Change....**

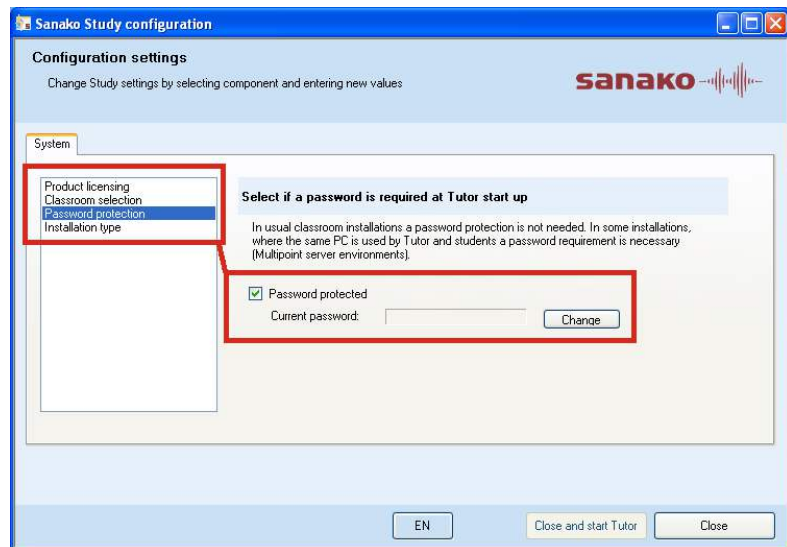


To change the Student application classroom, open Windows Explorer, go to the **Program Files / Sanako / Study / Student** folder and run the **SetClassroom.exe** application. Running SetClassroom.exe opens a dialog where you can select a new classroom in a drop-down menu.

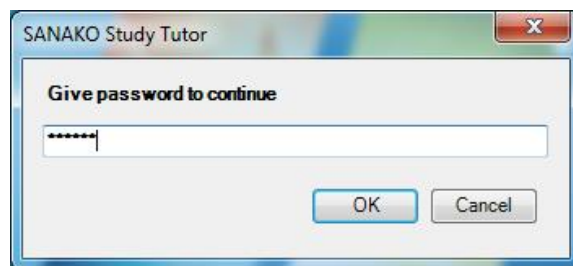


PASSWORD PROTECTION FOR STUDY TUTOR

If needed, you may set a password for the Study Tutor application. Password protection is normally only used in instances where the same workstation is used both as a teacher and student computer. Most commonly this occurs in multipoint server environments (see 'Installation type' below)

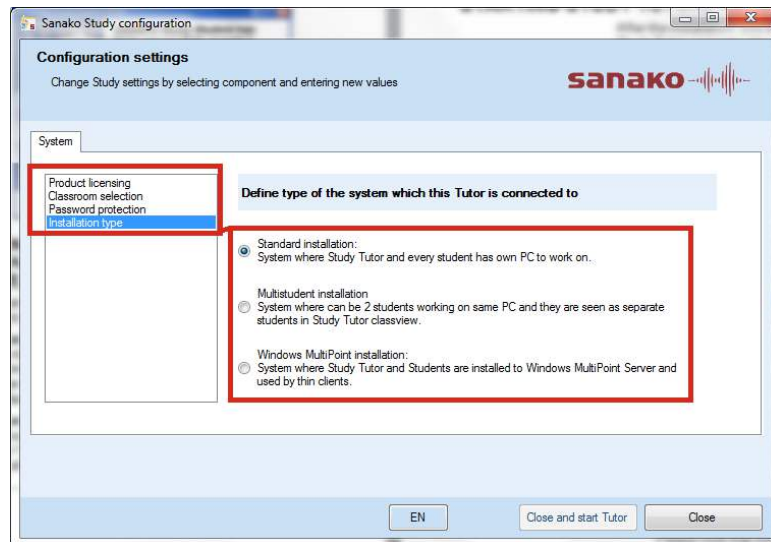


To enable password protection for the Study Tutor application, select **Password protection**, check the **Password protected** option and then click **Change** to enter a new password. This password will then be requested every time the Tutor application is started.



INSTALLATION TYPE

Teachers and students most often have their own separate computers in a Study setup. However, in case of different configurations where Installation type allows you to define your system configuration in special cases where you either have student pairs sharing workstations or employ shared computing resources in the classroom.



Standard installation

This is the default option in which teachers and students all use their own computers.

Multistudent installation

Select this option if you have two students sharing student workstations.

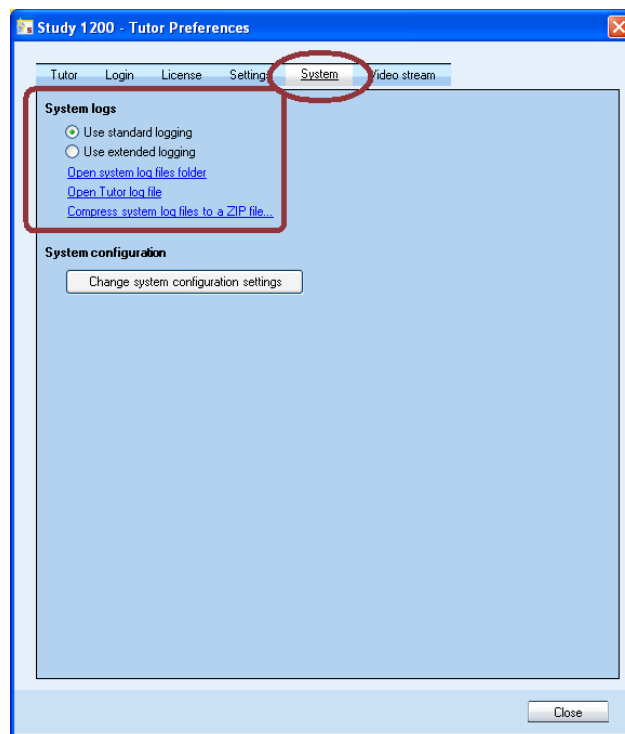
Windows MultiPoint installation

Select this option if the system is installed onto a Windows MultiPoint setup where the teacher and students are connected to the same resource with thin clients.

STUDY SYSTEM LOGS

LOG FILE OPTIONS AND TUTOR LOG FILES

The **System** tab in **Study Preferences** allows you to access log files in which Sanako Study automatically makes a record of the activity in the system. You can choose whether to employ **standard logging** or **extended logging**, which creates more detailed log files.

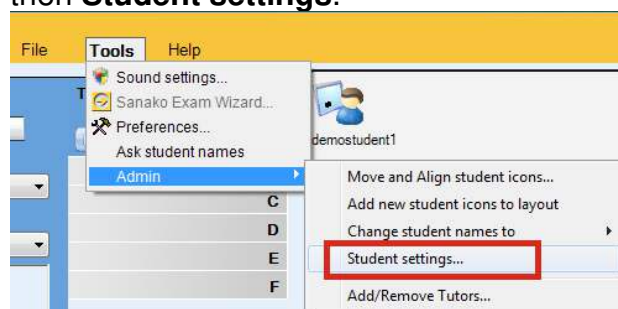


There are also separate student log files recording the activity on each student computer. For instructions on how to access them, see below.

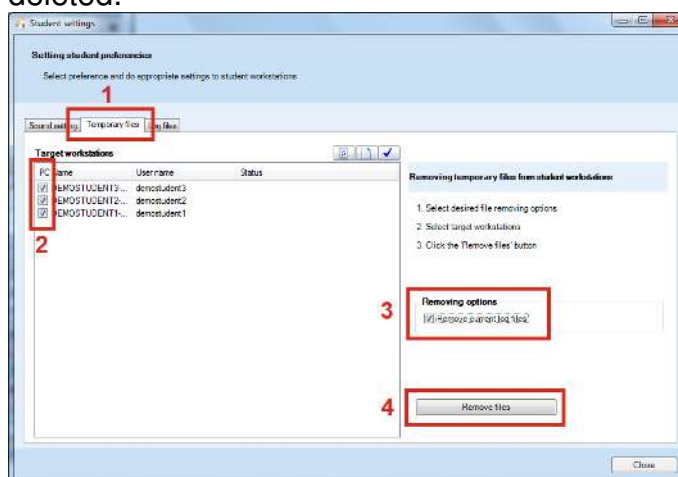
REMOVING STUDENT LOG FILES

To remove student log files, you need to access the Student settings window. Open the **Tools** menu, select **Admin** and

then **Student settings**.

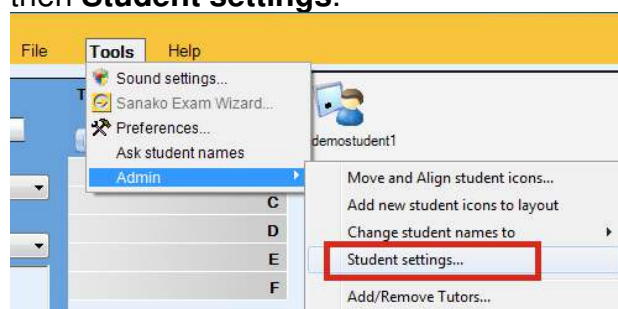


1. In the **Student settings** window, select the **Temporary files** tab.
2. Check the student computers where you want to remove log files, or click ☒ to select all students.
3. Check the **Remove current log files** option
4. Click **Remove files**. The student log files are now deleted.



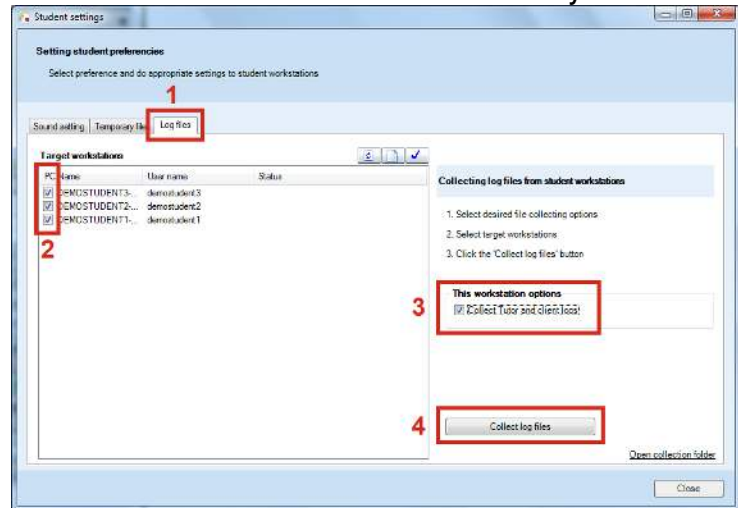
COLLECTING STUDENT LOG FILES

To collect student log files, you need to access the Student settings window. Open the **Tools** menu, select **Admin** and then **Student settings**.



1. In the **Student settings** window, select the **Log files** tab.
2. Check the student computers where you want to collect log files, or click ☒ to select all students.

3. Check the **Collect Tutor and client logs** option
4. Click **Collect log files**. The student log files are now collected to the location defined in Study Preferences.



VIEWING PRODUCT INFORMATION

Open the Tutor or Student **Help** menu and select **About** to open a window displaying product information, your software version, and the Study modules that you have installed.

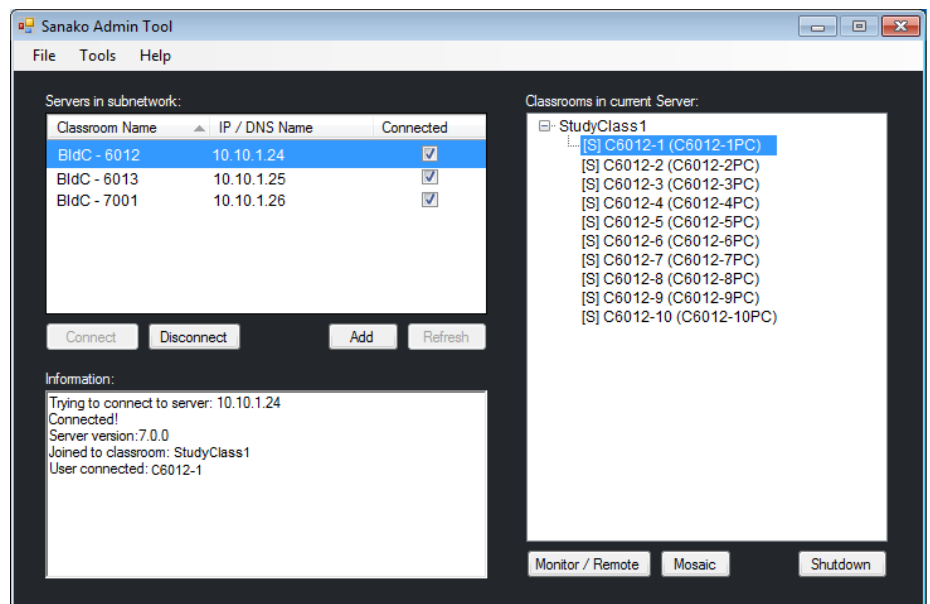


SANAKO ADMIN TOOL

WHAT IS ADMIN TOOL?

Sanako Admin Tool is an additional module available for purchase that allows system administrators and IT staff to remotely monitor, control and perform maintenance tasks on Study classrooms and workstations. Admin Tool eliminates the need to physically visit each classroom for administrative and maintenance tasks.

Note: Admin Tool is installed with a separate installer found on both the Study download page and the product DVD. Admin Tool also requires a separate software token.



INSTALLATION OF ADMIN TOOL

Sanako Admin Tool software is available on the Study product DVD and the Study download site.

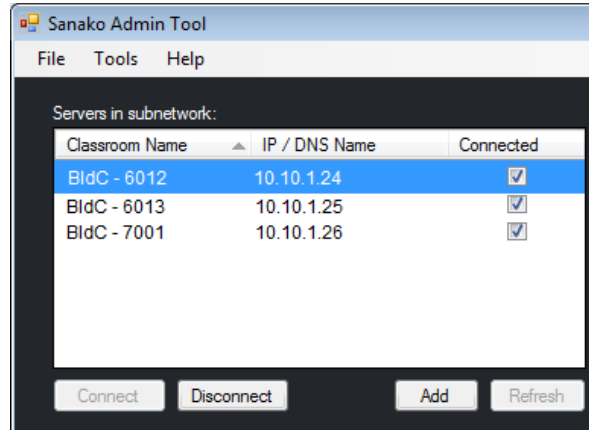
To install Admin Tool, run the **StudyAdminSETUP.exe** file found on the Study DVD and enter your Admin Tool software token information during installation.

Please note that the Admin Tool must be installed in the same subnet as the Study classrooms that will be monitored.

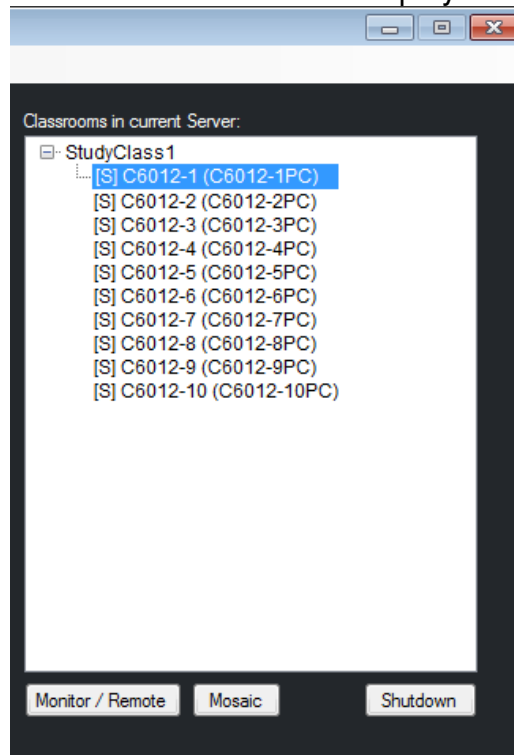
USING ADMIN TOOL

Admin Tool automatically locates all Study servers installed in the current subnet.

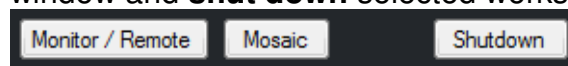
1. Select a server and click **Connect**.



2. The classrooms and computers connected to the selected server are now displayed on the right.



3. You can now select a computer and either **monitor** the computer screen or take **remote control**. You may also view multiple screens simultaneously in a **mosaic** window and **shut down** selected workstations.



SANAKO STUDY OFFLINE ACTIVATION

WHAT IS OFFLINE ACTIVATION?

Instead of a printed product license, Sanako Study customers receive a license activation token by email. The token is entered during Study Server software installation to activate the software license. However, the activation process requires that you have an active Internet connection.

In case the computer where you are installing Study Server software does not have an Internet connection, you may complete an **offline activation** process in order to finalize your installation.

Please note that part of the offline activation process needs to be performed on a computer with an Internet connection. This computer may be located anywhere.

WHAT IS REQUIRED FOR OFFLINE ACTIVATION?

- Sanako Study software
- USB flash drive
- Teacher/Server computer (offline)
- Computer with Internet connection (may be located anywhere)

HOW TO COMPLETE AN OFFLINE ACTIVATION

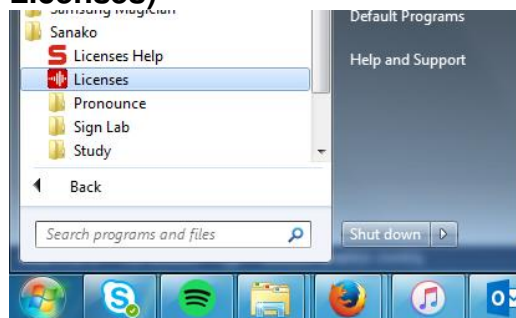
The offline activation process of a Study license has three parts.

- Software installation and creation of a license request file
- User account registration and creation of license activation file

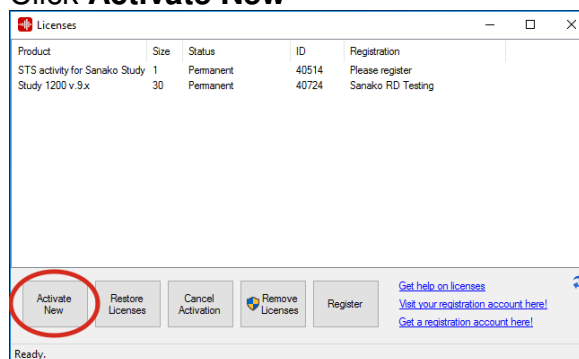
- Activation of Study license token

SOFTWARE INSTALLATION AND CREATION OF A LICENSE REQUEST FILE

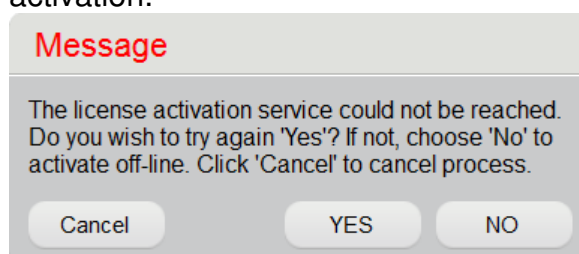
1. Start and proceed through Study software installation normally without entering a license token.
2. After installation, the Sanako License Manager opens. You can also open the **Sanako License Manager** manually (**Start – All Programs – Sanako – Licenses**)



3. Click **Activate New**

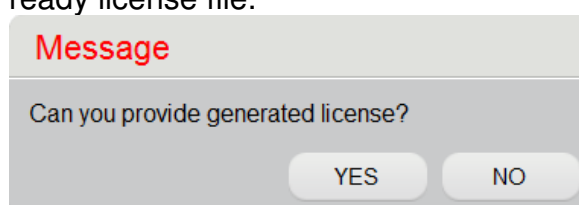


4. License Manager will inform you that the computer has no Internet connection available for license activation.



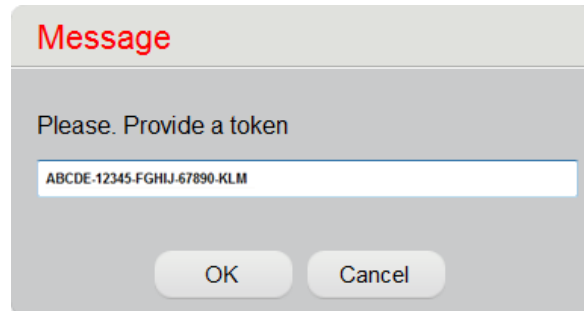
Click **NO** to initiate the offline activation process

5. The program will next ask you if you already have a ready license file.



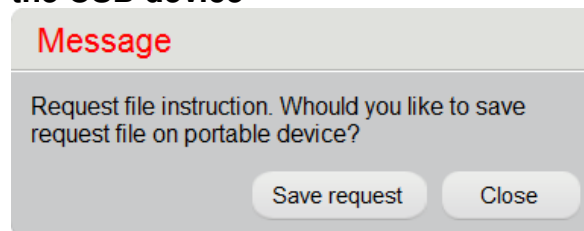
At this point we do not have our license file yet, so click **NO**.

6. Enter your Sanako license token information and click **OK**.



A message dialog box with a title bar that says "Message" in red. The main text inside says "Please. Provide a token". Below the text is a text input field containing the placeholder text "ABCDE-12345-FGHIJ-67890-KLM". At the bottom of the dialog are two buttons: "OK" and "Cancel".

7. The installation program will now ask you where to save a **'license request file (.req)'**. Enter your USB flash drive, click **Save request** and **save the file onto the USB device**



A message dialog box with a title bar that says "Message" in red. The main text inside says "Request file instruction. Would you like to save request file on portable device?". At the bottom of the dialog are two buttons: "Save request" and "Close".

We have now saved a **'license request file (.req)'** onto a **USB flash drive**. Before the software can be used, you need to **register a user account** and acquire a **'license activation file (.xml)'**. The next part will explain how this is done.

USER ACCOUNT REGISTRATION AND CREATION OF LICENSE ACTIVATION FILE

Before the installed software can be used, you need to log on to the Sanako online registration site, create a user account and then use the **'license request file (.req)'** to download a **'license activation file (.xml)'**.

8. Take the USB flash drive with the **'license request file (.req)'** to any computer with an Internet connection
9. Open an Internet browser and go to the Sanako registration site at the following address <http://registration.sanako.com/tokens>

10. Click **Registration** to create a Sanako user account



The image shows the Sanako Login page. It has a title 'Login' in red. Below it are two input fields: 'Login' and 'Password'. There is a checkbox for 'Remember me' and a 'Login' button with a red key icon. At the bottom, there is a link for 'Forgot password?' and a 'Registration' link which is highlighted with a red rectangle.

If you already have an active user account, simply enter your details and skip items 11 and 12 in the instructions below.

11. Enter your information in the registration window and then click **Save**

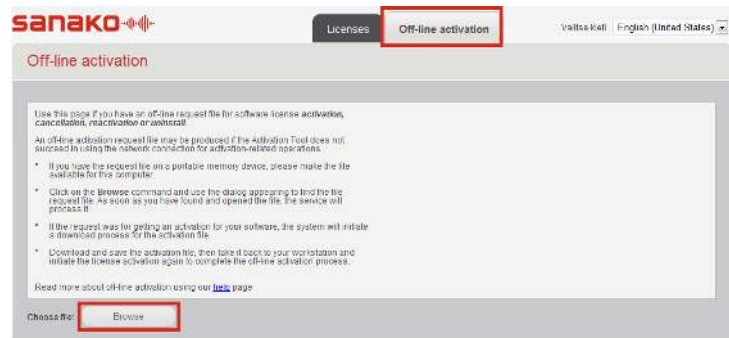


The image shows the Sanako Registration page. It has a title 'Registration' in red. At the top right, there is a language selector set to 'English (United States)'. The form contains several input fields: 'First Name', 'Last Name', 'E-mail address' (with a note 'It will be used as login name'), 'School or institution name', 'Street address' (Optional field), 'Postal code' (Optional field), 'City/State', and 'Country' (set to Finland). There are two checkboxes for receiving news and product information. At the bottom, there are 'Save' and 'Cancel' buttons.

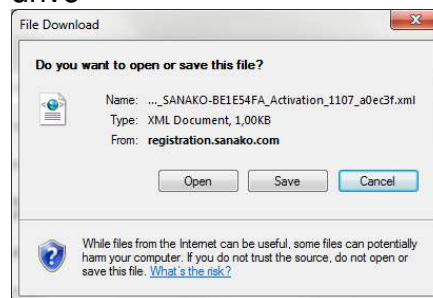
12. You will receive your username and password to the email address provided during registration and a link to the login page of the Sanako registration site. Follow the link to the login page to confirm your registration and then log in to the Sanako registration site.



13. In the Sanako registration site, select the **Off-line activation** tab and click **Browse**.



14. Locate and select the 'license request file (.req)' on the USB flash drive. The off-line activation tool will now download a 'license activation file (.xml)'. Save the 'license activation file (.xml)' onto the USB flash drive

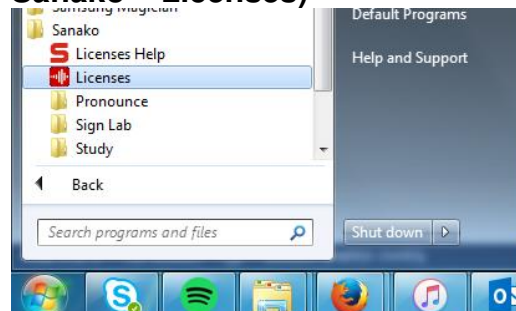


Next, you need to go back to the offline computer where the Sanako software has been installed and activate the license on the computer with the 'license activation file (.xml)' on your USB device.

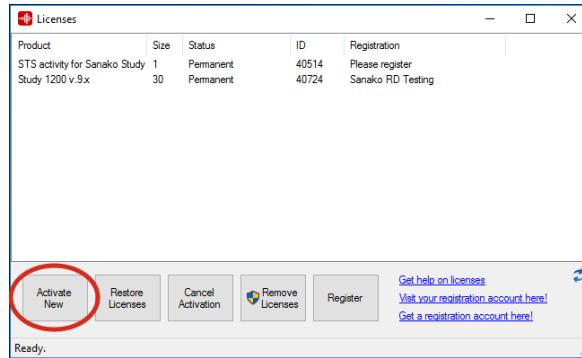
ACTIVATION OF STUDY LICENSE TOKEN

When you have downloaded a 'license activation file (.xml)' onto your USB flash drive, the final part of the offline activation process is activating the license token on the offline computer.

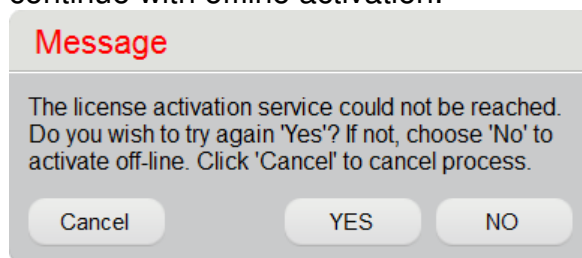
15. Enter the USB flash drive onto the computer where Sanako software has been installed and open the **Sanako License Manager (Start – All Programs – Sanako – Licenses)**



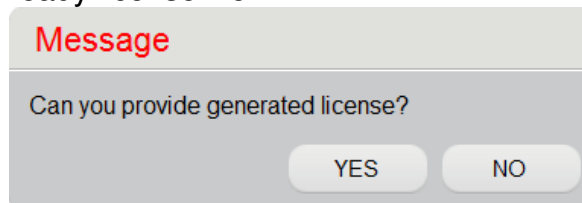
16. Click Activate New



17. The message informing you that the computer has no Internet connection appears again. Click **NO** to continue with offline activation.

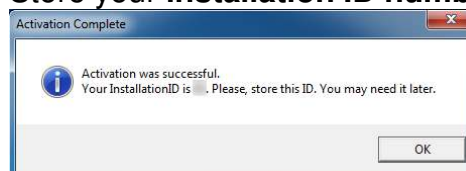


18. The program will next ask you if you already have a ready license file.



Click **YES** and then locate and select the '**license activation file (.xml)**' on the USB flash drive.

19. You have now completed the offline license activation. Store your **installation ID number** for later use



STANDALONE INSTALLATION FOR TRAINING

INSTALLING A TRAINING SYSTEM

You can install a standalone Study system for user practice. The training system will include the teacher application and three student applications on the same computer. Since all applications are on the same workstations, audio features are not operable, however, all other Study features are available.

Installing a training version of Study on a personal laptop or into a teachers' lounge will allow teachers to get familiar with the software and try out selected features before using them in actual teaching. Teachers may sometimes be hesitant to use features they are not fully familiar with and may not have time to practice in the actual classroom.

The standalone installation is done with a separate installer on the Study product DVD and download site. Please note that a standalone training version of Study cannot be installed onto a computer that already has any of the Study software components (Server, Tutor or Student) installed.

INSTALLING FROM MSI PACKAGES

PRE-REQUISITES FOR MSI INSTALLATION

If you want to install Sanako Study using MSI packages, please check that the following requirements are met to ensure a successful installation.

Installing Study with MSI packages requires that Microsoft .NET Framework 4.0 or later have been installed onto the computer before installing any of the MSI packages. Please note that .NET 4.0 should be applied via Group Policy as there is no MSI package available from Microsoft.

Additionally, the following packages must also be installed onto the computer to ensure successful execution of the programs:

- mdxredist.msi – Installs DirectX managed extensions
- vcredist_x86.exe

The .exe Study installation package includes the above components. If the .exe Study installer is used, only .NET Framework needs to be installed beforehand.

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