

9. Client Installation

The Client software is installed using the provided Windows installer Stratus.EEG.Client_Major.Minor.build.rev.msi. The software is installed in %programfiles%\Kvikna ehf\Stratus EEG Client.

System Requirements

The table below represents the minimum specifications for installation of Stratus EEG client software which comprises Centrum, Review and Team Monitor modules:

<u>Recommended Operating Systems</u>	<u>10 (64-bit)</u>
<u>Processor</u>	<u>2.0GHz</u>
<u>Memory</u>	<u>4GB</u>
<u>Hard Drive</u>	<u>50GB of available space</u>
<u>Screen Resolution</u>	<u>1366 X 768</u>

Antivirus Requirement

Windows Defender with default configuration of firewall and real-time protection. The key antivirus requirements are the following exceptions:

- DNS Server address
- Path: %programdata%\Kvikna\
- Path: %programdata%\Kvikna ehf\
- Path: %windir%\TEMP*.keeg
- Path: %windir%\TEMP*.ieeg
- Path: %windir%\TEMP*.edf
- Path: %windir%\TEMP*.avi

Additional Requirements

- (a) Microsoft .NET Framework 4.5.2
- (b) Visual C++ Redistributable for Visual Studio 2017 (X64)

Network Requirements

The table below represents the network requirements for optimal communication with a Stratus EEG Server from a client system:

Communication Requirements

<u>Bandwidth (Throughput)</u>	Upload: 5 Mbps Download: 20 Mbps
<u>Accessible Firewall Ports</u>	HTTPS/443, HTTPS/8443

Windows .NET Applications Requirement

The following Windows .Net application must be running for background operations such as exam upload:

1. Kvikna.Streaming.Server.exe (Upload service)
 - a. Connection to the Patient Management Server and Signum Reader Server for background EEG upload

Software Installation

The following steps are required to successfully install the client Software:

1. Log on to the computer with administrative rights.
2. Download and install all applicable Windows updates.
3. Double-click the downloaded Stratus EEG Client application

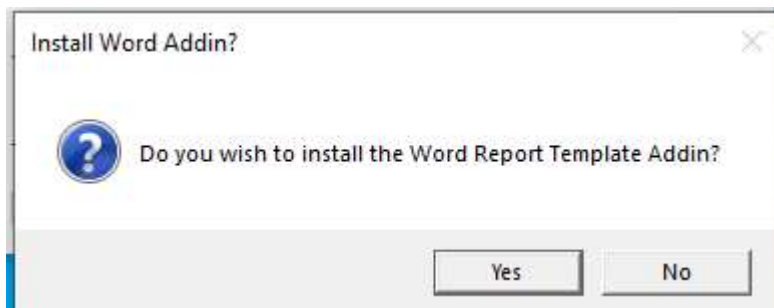


4. Click **YES** to continue with the installation



5. (Optional) At the prompt to install the word Add-in, click Yes or No (explained below).

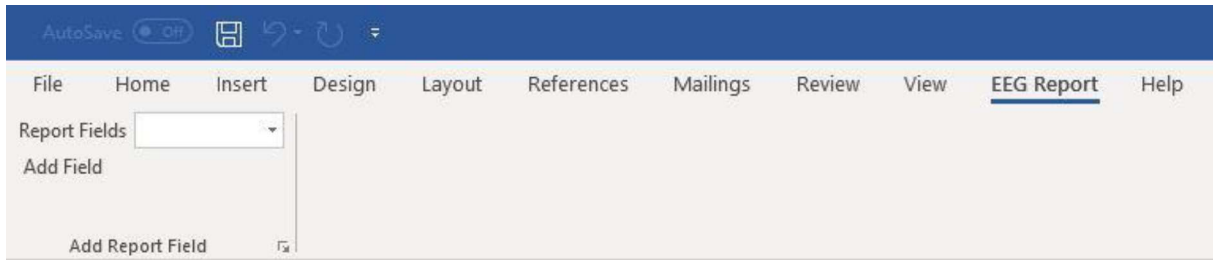
Word Report Template Add-in



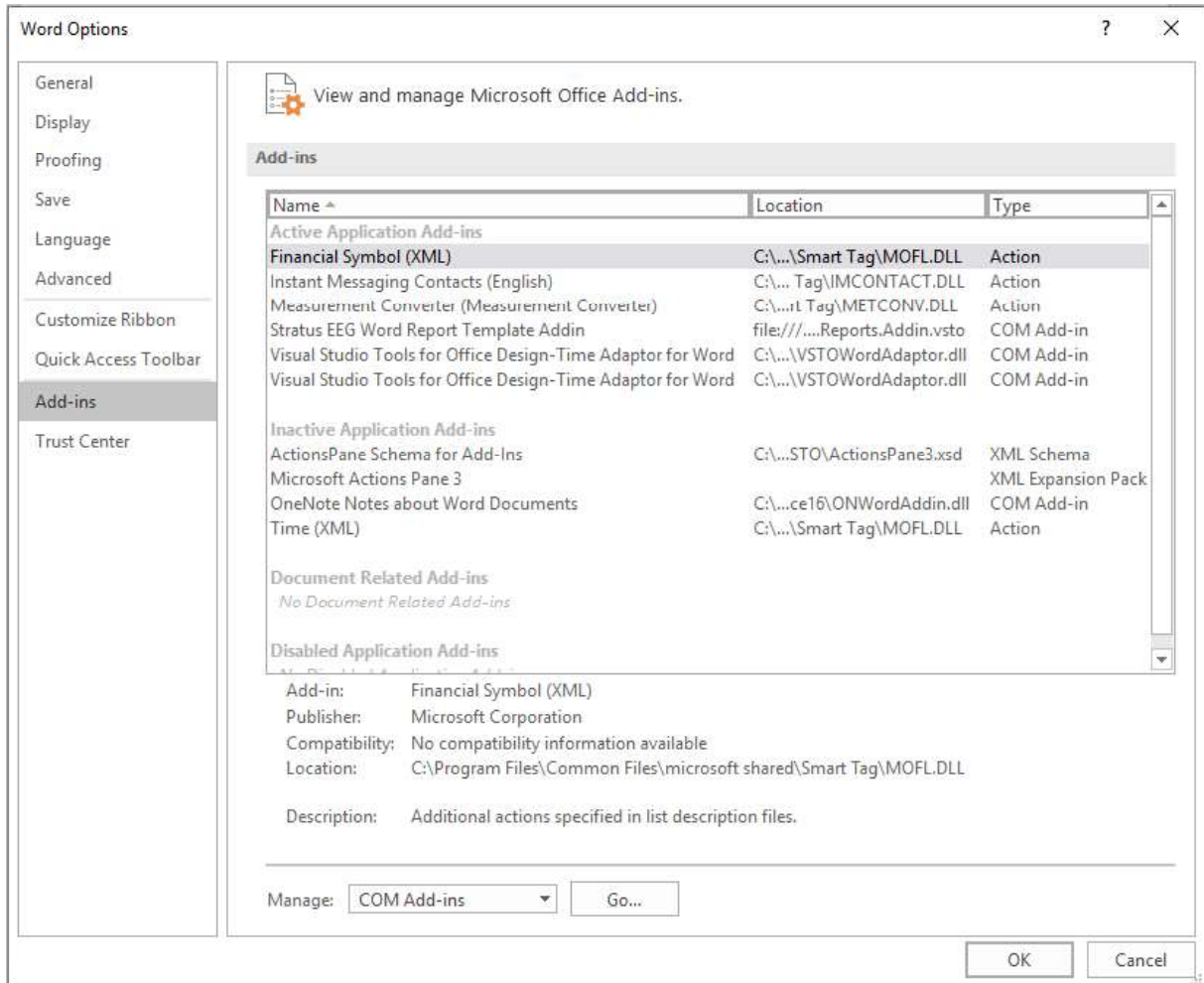
For users creating Word Report Templates, the Stratus EEG Word Report Template Add-in must be installed. Click yes to start the installation. A new ribbon item in the Word Ribbon control will appear next time the Word 2010 or later is launched.

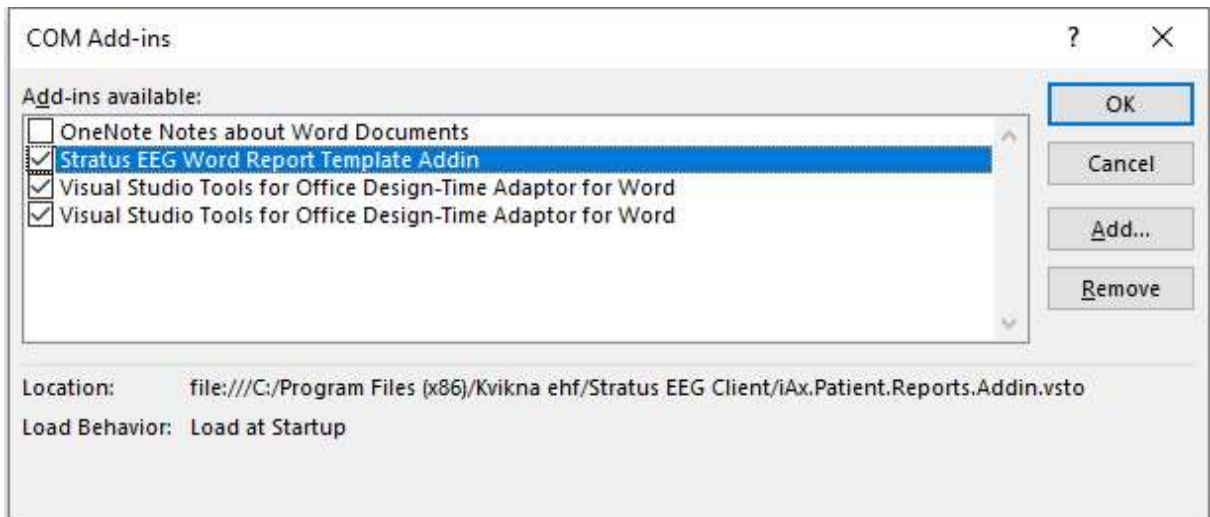
Note:

- To install the Word Add-in, a compatible Microsoft Word application must be installed in the system. The supported Microsoft Word versions are 2010 and above.
- Additional requirements may not be needed on a client system with the most recent Windows updates.



If the EEG Report tab does not appear on the Word ribbon, go to File → Options → Add-ins, select COM Add-ins in the Manage combo box and click Go...

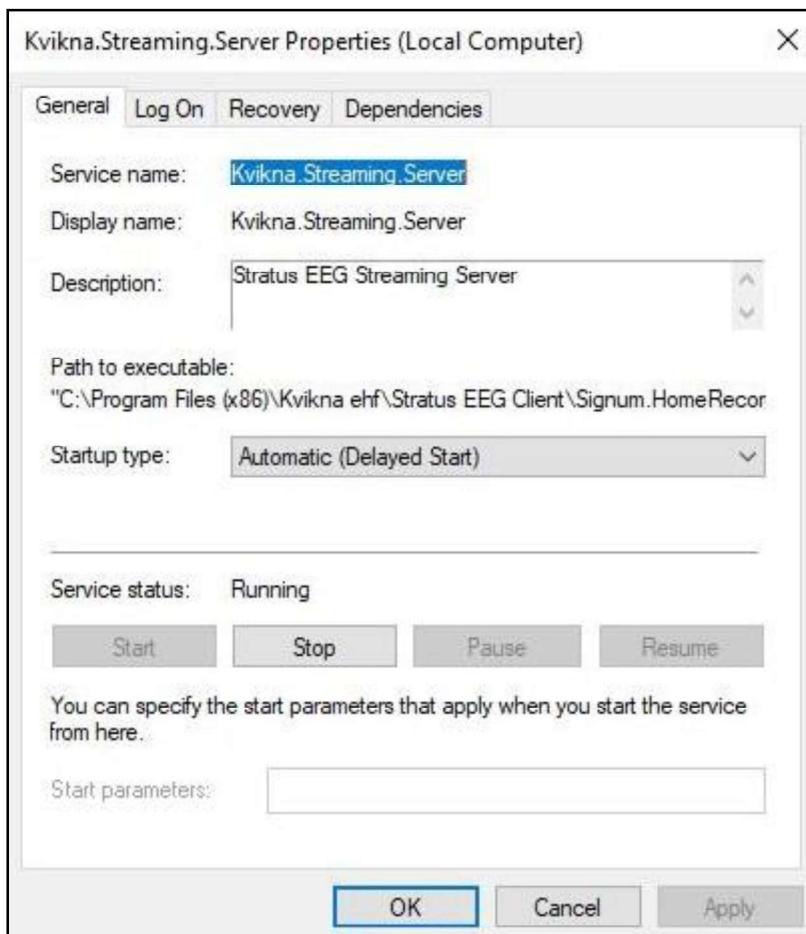




Make sure that Stratus EEG Word Report Template Add-in is checked and click OK.

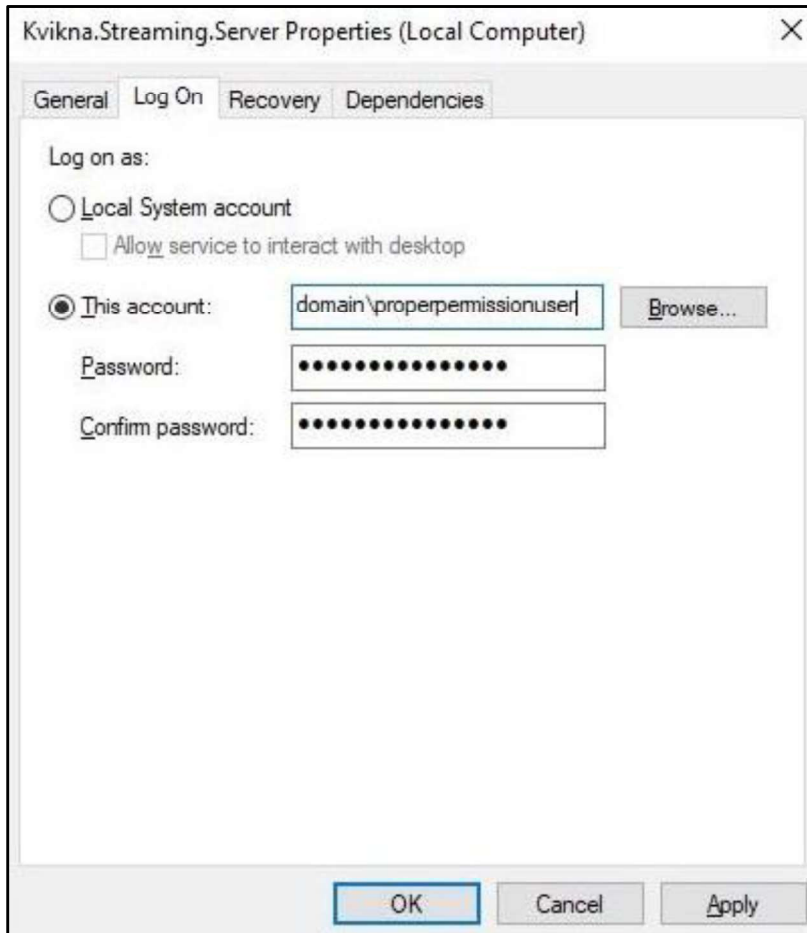
Automatic Import Service

The client software (not applicable to the Physician Client) provides an automatic import function. This function enables both online import while recording in PC or Dual mode and allows the user to log out before importing completes without interrupting the transfer. To facilitate this, the Kvikna.Streaming.Server Windows service is provided.



This service runs as the Local System account by default. If the Local System account does not have read and write permissions to the files to be imported, it will fail. In this case, either the Local System account should be given proper permissions or the service should be configured to run as a user that has them.

Note: If users will be importing from a mapped network drive, the user that this service is configured to run as must also have the network location mapped as the same drive letter.



Troubleshoot Video Playback

In some cases, extra steps are required to enable video playback.

1. Open an exam for review and check if the video picture is showing for exams that have video.
2. If video is not showing, restart Stratus EEG Review.
3. If the video picture is still not shown, download lav filters:
http://www.free-codecs.com/LAV_Filters_download.htm
4. Run the installation program.
5. If the video picture is still not shown, download the xvid codec:
<http://www.xvid.org/Downloads.15.0.html>

6. Run the installation program.
7. Under normal circumstances the video should now work. If it still does not work, try:
 - a. Computer reboot.
 - b. Make sure there are no server-side problems.
 - c. Try playing back the exam video file directly from Windows Media Player.
8. The software contains two different video players. It is possible to switch between those by opening the My Settings tab in Centrum and select either Version 1 or Version 2 from the Video Player Version dropdown. A restart of Review is required for the change to take effect.

Settings



Configure Connection

The configuration of the Client involves connection to a designated Stratus EEG Server. The Client can be configured to connect to multiple Stratus EEG Servers, however there can only be one active connection session at any time from a client station to a Stratus EEG Server.

The steps below outline the process for configuring a Stratus EEG Client to connect to a Stratus Server:

1. Click the Start button



2. Type Centrum

3. Click on Centrum



4. Click Manage Connections



5. Click Add



6. On the right hand of the displayed window, enter the following:

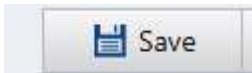
Name: *Distinguishable name for the Server*

Host: *click dropdown and select https*

Host: *Enter the IP Address or DNS name of the Stratus EEG Server*

A form with three fields: "Name" containing "myconnection", "Host" with a dropdown set to "https" and a text field containing "myconnection.stratus EEG.com", and "Port" containing "443".

7. At the bottom of the page click Save



8. To confirm successful configuration, click on the name assigned to the connection (from previous step) to login to the assigned Stratus EEG Server



9. To access assigned records available on the Stratus EEG Server, enter the assigned User Name and Password, then click OK

A login form with the "StratusEEG" logo at the top, followed by "User Name" and "Password" labels and input fields, and "OK" and "Cancel" buttons at the bottom.

Client Acceptance Test

Before performing the acceptance test, restart the operating system and make sure you are logged in as a standard user (not admin user).

Acceptance testing requires a StratusEEG Client that is not on the same network as the StratusEEG Server.

- Log on to Centrum.
- In the Upload tab, select a compatible data to upload (EEG and video)
- Save the new patient record.
- Click Upload to start the data transfer process
- Navigate to the Processing tab and monitor the transfer process to completion
- Navigate to the Patient tab and review the uploaded exam
- Make sure it is possible to play the video
- Add an event to the exam
- Navigate to the Menu tab and save the changes
- Close the exam.
- In Centrum, review the same exam to verify that the changes were indeed saved.
- Calibrate the screen: Go to Settings>>My Settings.
Use a ruler to calibrate the screen correctly and save the changes.
- Go back to the EEG and set the timebase to 30 mm/s (3 cm/s) and use a ruler to verify that the length between major gridlines is 30 mm (3 cm).
- Right click on a channel label and set the Sensitivity to 10 $\mu\text{V}/\text{cm}$ (1 $\mu\text{V}/\text{mm}$) and the Deflection to 10 mm.
- Use the ruler to verify that the channel deflection (from top to bottom) is 2 cm (20 mm). Calibration must be performed on each monitor using the system.
- Auto page the exam and note roughly the highest auto paging speed the system can maintain.
 - < 15x
 - 15x
 - 30x
 - 50x
 - 100x
 - > 100x