

Digitize your lectures

This guideline is a translation of the following website of Hamburg University:

<https://www.uni-hamburg.de/elearning/werkzeuge/autorenwerkzeuge/obs-studio.html>

The translation was prepared with courtesy of Marcel Schäfer of DKFZ Heidelberg. Thank you very much!

Lecture recording with OBS Studio

Open Broadcaster Software (OBS) is a free, open-source software to record and stream videos. You can use it to record your screen resp. slides and give an audio presentation.

Required equipment

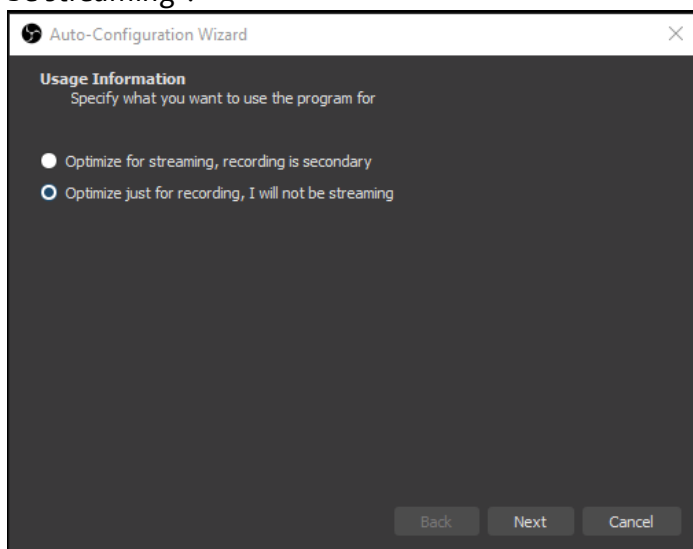
- A computer
- A microphone:
 - You can use the built-in microphone of your laptop, but that is not recommended due to the low sound quality
 - Better sound quality can be achieved by using e.g. a headset, a standing /table microphone
- A webcam, if you want to be seen in the video

Installation

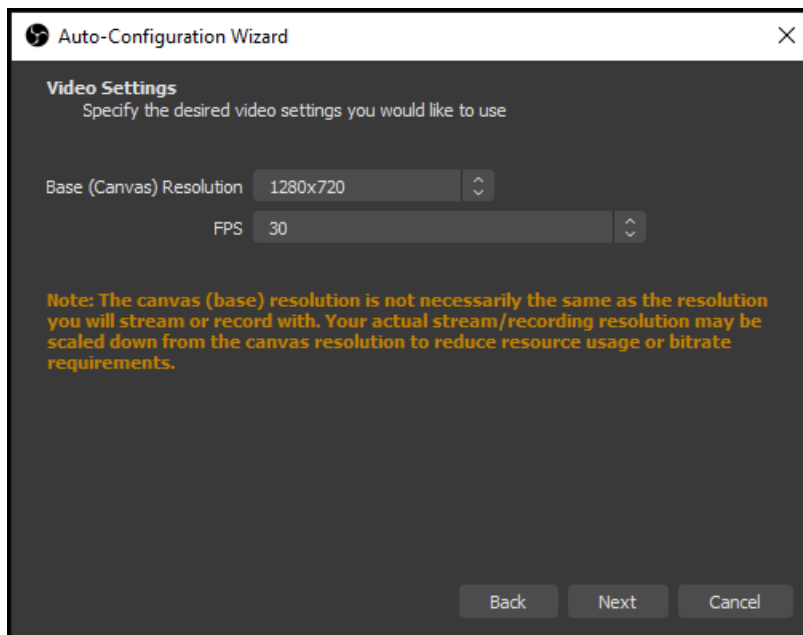
- Download the program from <https://obsproject.com>
- Choose between Windows, MacOS and Linux
- Follow the installation instructions
- Open OBS

Auto Configuration assistant

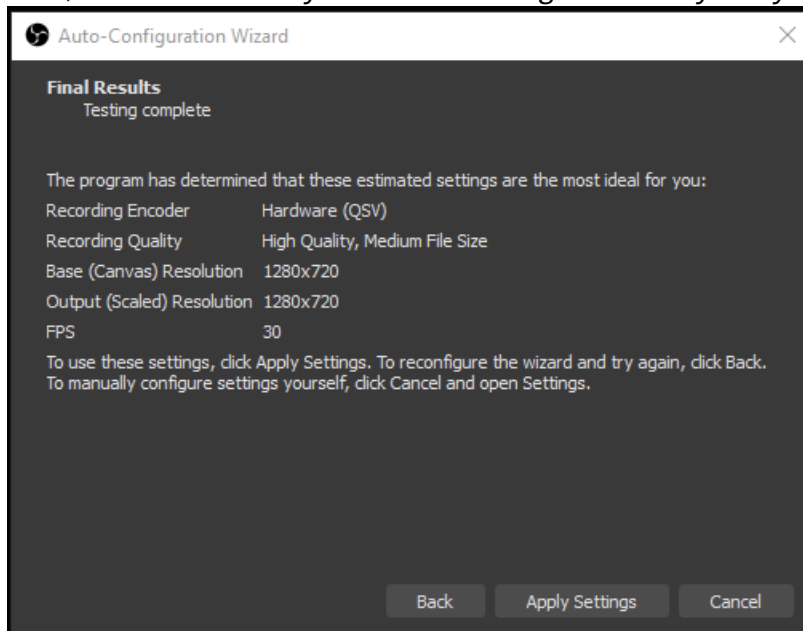
Upon first opening OBS, the auto configuration wizard helps you to find ideal settings. The assistant can be started from the button “Tools”. Choose “Optimize just for recording, I will not be streaming”.



Then choose the resolution 1280x720 and 30fps.



Now, the assistant analyses the best configuration for your system.



After analysis you can check and set the configurations.

Add system audio to OBS (only Mac users)

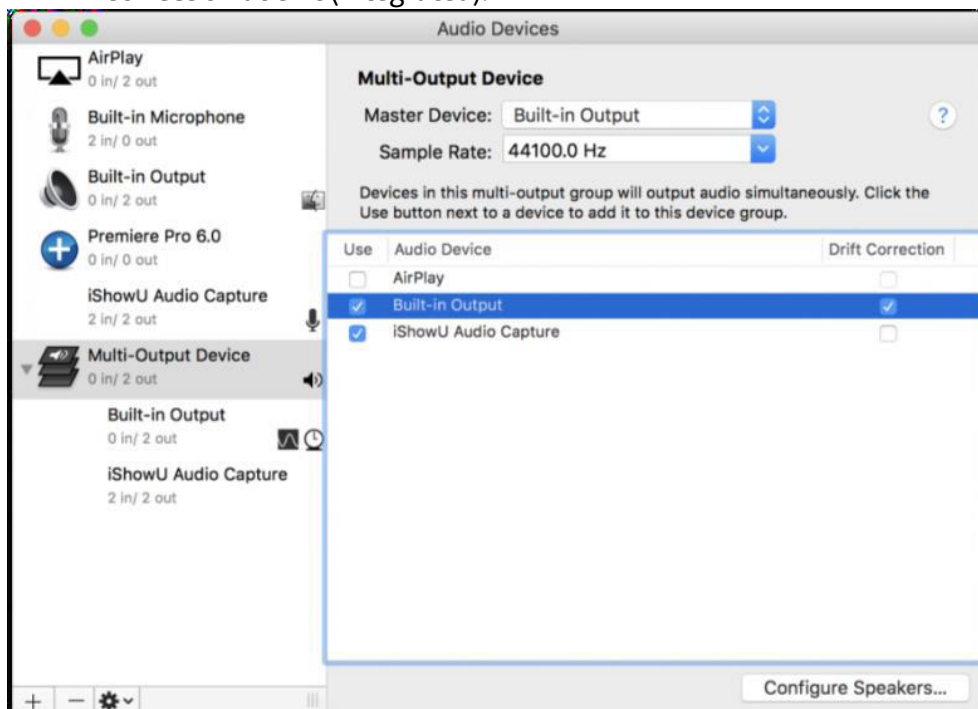
To “hear what you hear yourself” in OBS, you need to install the free tool “IShowU Audio Capture”.

- Download the program [here](#).
- Follow the installation instructions.

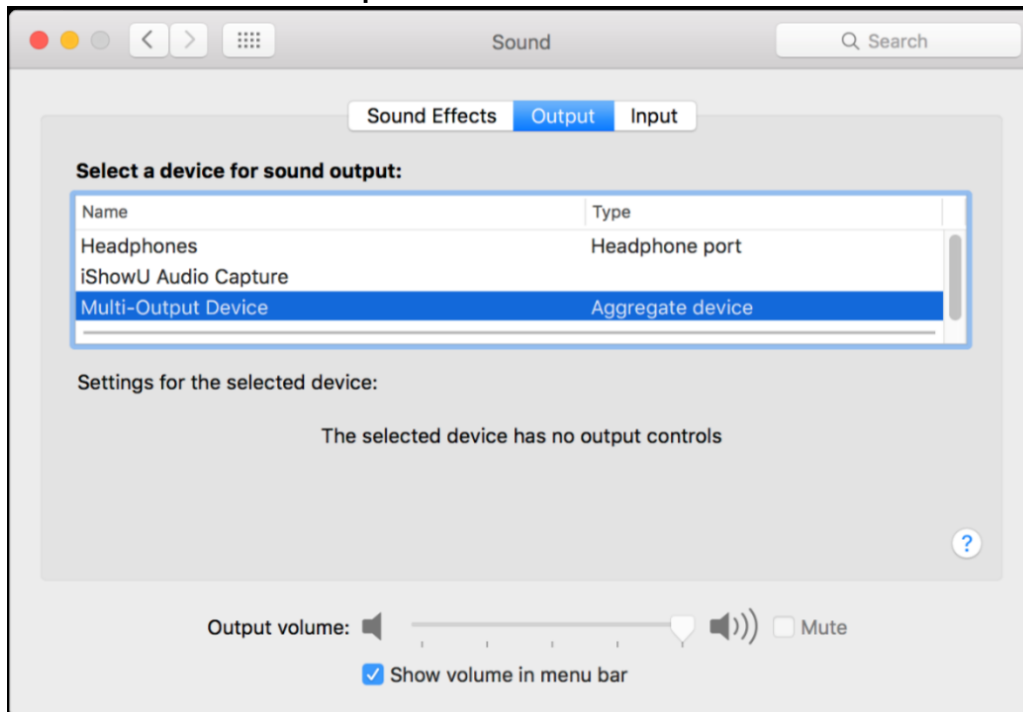
Subsequently open the sound settings (System settings > Sound) and choose **iShowU Audio Capture** as sound input.



- Start the app **Audio-MIDI-Setup** (Programs > Utilities).
- Here you create a new Multi-Output Device, so the system audio can be emitted synchronously from your **speakers/headset** and **OBS**.
- Click on the “plus symbol” in the bottom left corner and choose “New Multi-Output Device”. Mark “**Exit (integrated)**” as well as **iShowU Audio Capture**. Leave **Drift Correction** at exit (integrated).

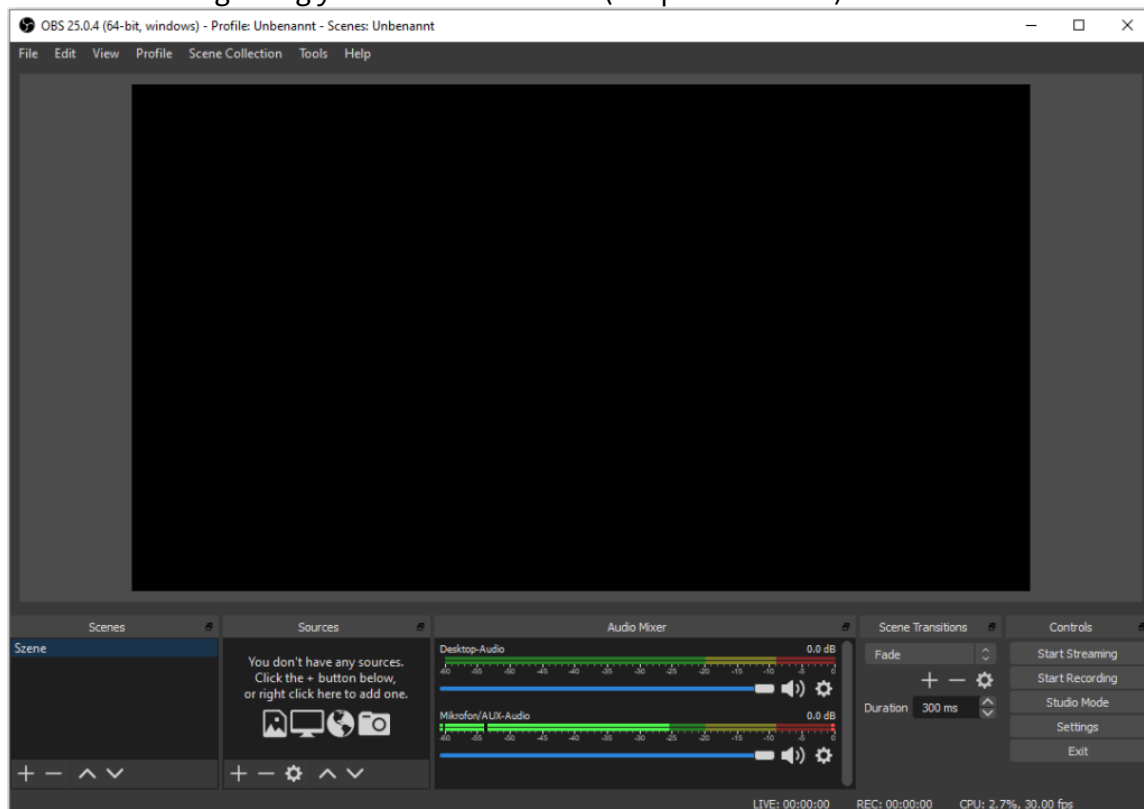


- Go back to **System settings > Sound**. Here you find the Multi-Output Device now. Before you choose the Multi-Output Device, you should adjust your volume, because that is not possible to adjust the volume of Multi-Output Devices.
- Select the **Multi-Output Device** now and close the window.



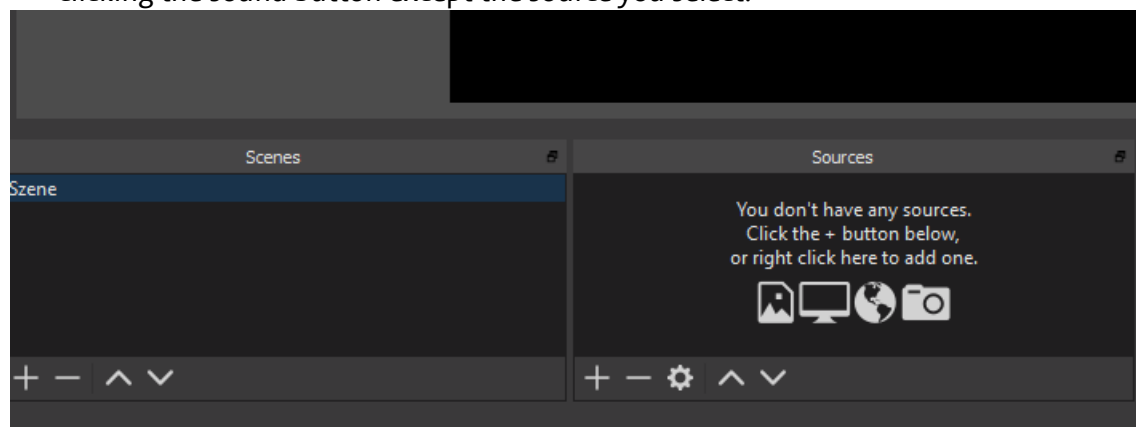
Setting the recording sources in OBS

- In the beginning you see a black screen (see picture below).

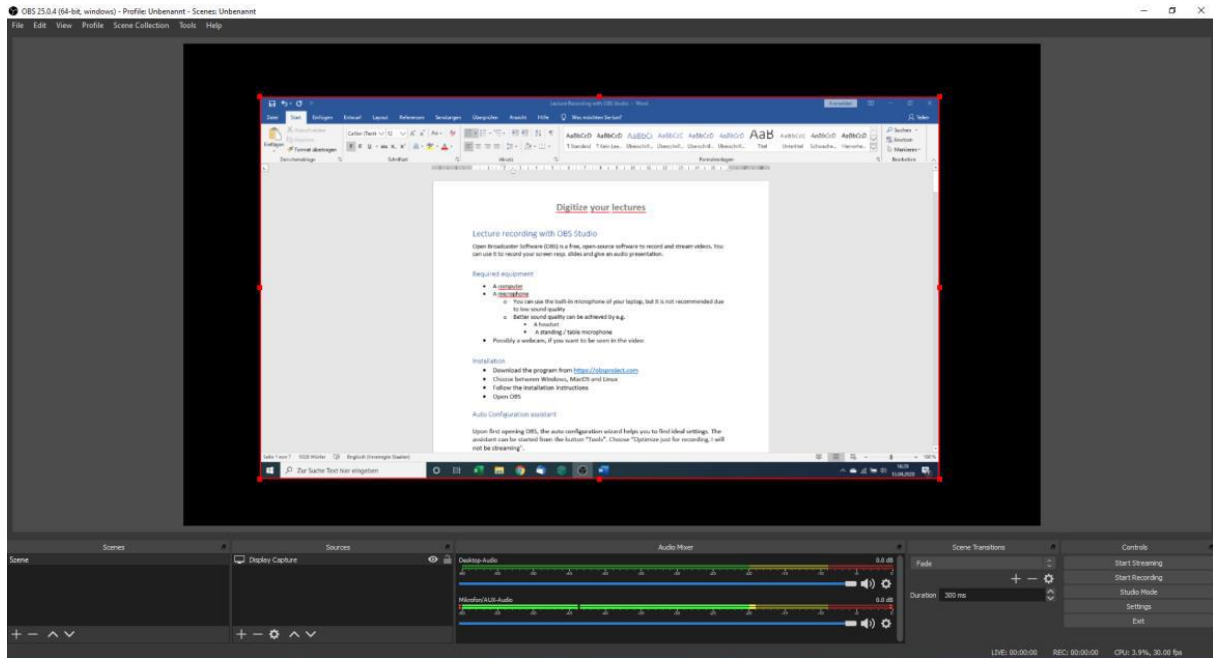


- First, you create a scene. A scene is a template with the preliminarily chosen sources.

- There is a default scene named “Scene” pre-created, but without sources.
 - You can assign several sources to a scene. You can record with the screen and an additional webcam.
- Possible **sources** are
- Audio sources
 - **Audio input recording**, e.g. a connected microphone
 - **Audio output recording**, e.g. the output (desktop audio)
 - Screen recording
 - Window recording
 - Here, only the window chosen as source will be recorded, even it is minimized
 - Video recording device
 - Recording by the integrated webcam or external camera
 - In the bottom middle of the screen you see the **Audio-Mixer**. Mute all audio sources by clicking the sound button except the source you select.



- Click the “+”-symbol in sources (see picture) to add sources to the default scene
 - To record the **screen**, choose “**Display Capture**” in the opening menu
 - Click “OK”
 - Choose the screen which you want to record as “Screen”
 - Click “OK”
 - To record an open **window**, click “**Window Capture**”
 - Click “OK”
 - In “window”, choose the window that you want to record, e.g. your presentation slides
 - Click “OK”
 - If you want to record yourself with the **camera**, choose “**Video Capture Device**” as additional source (by clicking the “+” symbol again)
 - Click “OK”
 - Choose the integrated webcam or an external connected camera in “Device”
 - Click “OK”
 - If you choose to show several **video sources**, you can reduce the size of the window by clicking on a video window. A red border appears. By clicking the edge and holding the mouse, you can change the size of the window (see picture).
 - With the arrow keys in the box “sources” you can move the **windows** further in the **back- or foreground**. The first window in the list is completely in the foreground, the following windows will be shown further back in this sequence.



- The connected **microphone** should be detected automatically by OBS.
- If not,
 - Choose **“Audio Input Capture”** as another source by clicking **“+”**.
 - Click **“OK”**
 - Choose your desired microphone as source in **“Device”** in the opening configuration window
 - Click **“OK”**

Configuration of video output and definition of shortcuts

- Go to the box **“Controls”** in the bottom right side, click on **“Settings”** and choose the following configuration:
 - In **“Output”**, choose the folder as **“Recording Path”** where you want to save your recording
 - In **“Recording”**, choose the **Recording Format: mp4**
 - Use standard values for the other settings
 - In **“Hotkeys”** you can define useful shortcuts, amongst others for **“Start recording”**, **“Pause / continue recording”** and **“Stop recording”**
 - It is useful to define a shortcut for pause / continue recording
 - Click **“OK”**

Recording

- When you want to start recording, click on **“Start Recording”** in the bottom right window **“Controls”**
- That’s better if you test the recording, especially for audio quality / volume.
- When you want to end the recording click on **“Stop Recording”** in the **“Controls”** window as well
- Open your screencast in the chosen path. It is named with the current time and date by default.

- If the sound is too low, increase the volume in the bottom center of the screen in “Audio Mixer”. If it is already at 100%, go to the gear symbol right of the audio channel and choose “Advanced Audio Properties” and increase the volume of the audio recording device to a value higher than 100%.
- If the sound is noisy go the section “Tips for better audio quality” below
- Test again
- If you are happy with the result, record your lecture or contribution

Tips for better audio quality

- Go to the audio source of your scene and do a right click with the mouse
- Choose the menu item “Filters” which opens a new window
- Click on the “+” symbol and choose “**Noise suppression**” in the menu
- Click “OK”
 - Set the “Suppression level” to -17 dB
 - Click on the “+” symbol and choose “Noise Gate” in the menu
- Set the “Close Threshold” to -44
 - Set the “Open Threshold” to -42
 - Click on “Close”