



UNIVERZITA KARLOVA

**Basic methodology for taking  
the state final examination remotely (distance form)**

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## Options for organizing state final examination remotely

The COVID crisis act allows state examinations to be held remotely, and they do not need to be public as long as they are recorded. Based on an extraordinary measure of the Ministry of Health (the “MoH”) dated 30 April 2020, the presence of persons at universities is allowed up to a maximum of fifteen persons. This change relates, for example, to individual consultation or examinations, especially state final examinations.<sup>1</sup> With respect to the capacity and possibilities of selected instruments, the use of on-site testing should be considered when planning final examinations.

For remotely taking a state final exam or a part thereof, a state PhD exam, and dissertation defences (the “state exam”)<sup>2</sup>, the following three options are possible based on the above-stipulated act and the extraordinary measure of the MoH:<sup>3</sup>

- 1) The state exam is held with participation of the public (without recording);**
- 2) The state exam is recorded (without participation of the public);**
- 3) Combined, i.e. some of the participants are on-site (max. of 5 persons) and some participate remotely.**

As a part of distance testing for state exams, the following tools, supported by Charles University (CU), were selected:

- 1) Microsoft Teams;**
- 2) Adobe Connect.**

With respect to legal, security, and technical requirements (typical for output video and security), CU currently does not allow the use of other tools during distance state exams that need to be recorded. A [comparison of the tools](#) (pros and cons) together with the option of training for work with these tools is available on the pages of the [Lifelong Learning Centre](#). You can find the instructions for the tools and technical assistance on the pages of the [Centre for the Support of E-Learning](#). If you use other tools that are not supported by CU, you must ensure all of the important conditions of a distance state exam, e.g. valid output video when recording and the reporting duty,

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<sup>1</sup> Or rigorosum examinations for students of the programmes of study General Medicine and Dentistry. The COVID act does not apply to rigorosum examinations that are not a part of studies, i.e. they cannot be held remotely.

<sup>2</sup> Article 8(1 e and f), Article 9 and Article 11 of the Code of Study and Examination of Charles University.

<sup>3</sup> If needed, it will be amended after passing of the act and its interpretation.

which is a student right. The reporting duty means informing the student at the start of the state exam or in another demonstrable form, for example together with sending a link to the state exam, that the disclosure of data to a third party and outside the EU area could occur while using this tool.

Should you have any other experience that you would like to share with us, advice, or questions, please contact us at the following e-mail address: [distancnizkouseni@cuni.cz](mailto:distancnizkouseni@cuni.cz).

## 1) State examination with participation of the public

- To ensure participation of the **public** in a state exam, you must include **a link to the videoconference (url) created in advance** on the faculty's web pages, typically placed in the same location as the terms for the state exams. The url structure and the option of access to an online meeting differ depending on the selected tool.
- The administrator of the state exam is entitled to approve an additional participant. If another participant enters the meeting during the exam, the administrator does not have to accept the participant and can remove them from the videoconference (similar to an on-site state exam; only in exceptional cases can a person be admitted into the room after the exam has started).
- When there is participation of the public, the state exam is not recorded.
- It must also be monitored whether the present guest has not started, intentionally or by mistake, recording the exam (relating to MS Teams). Nevertheless, there is a risk that the recording will be made in another manner, outside the system used.
- When choosing this method, the GDPR must be taken into account, and the proof of identity part (see commencing the examination) must take place exclusively between the committee and the examinee without the presence of the public.

## 2) Recording of state examinations

- A state exam is **recorded** (or an audio or audio-visual recording is made) and the recording is then **stored for a period of five years**. The recording can only be provided to government authorities, upon request. This request must be saved together with the recording.
- If the state exam is recorded, there is no need to ensure participation of the public.
- When recording the state exam, all parts of the exam must be recorded, i.e. the theoretical and practical parts.

- When recording, the recording must be **stored in the file service system (ESSS CU)** – see the instructions in the appendix, **for a period of five years and then it must be destroyed as a part of a shredding procedure.** We will provide more information on this issue in a special methodological procedure for these cases.
- The technical parameters for recording are presented in an appendix to this document.

### 3) Combined state examinations

- Based on the extraordinary measure of the MoH dated 15 April 2020, it is possible to organize a state exam where:
  - 1) A part of the committee and the student are present and the other participants in the exam (the committee or the public) are connected remotely;
  - 2) Or a part of the members of the committee are present and the student and the other participants in the exam (the committee or the public) are connected remotely.
- When using this form, it is important to have only a maximum of fifteen people physically present at the exam.
- The detailed instructions and organizational measures of the MoH must also be followed.<sup>4</sup>
- Moreover, the exam follows the rules according to selected state exam options:
  - 1) While upholding the public principle (without recording);
  - 2) Recording of the exam (without the public).

In all cases of distance testing for the state exam, it is necessary to ensure transparency and fair treatment and to try to prevent cheating. Any alternative methods of assessment in individual subjects should require a study load comparable to the original methods. Distance exams are full-scale exams, although not the same as on-site exams. The transformation from on-site to distance testing should not reduce the workload of students disproportionately or significantly increase it. The state exam is intended to demonstrate primarily professional knowledge and orientation in the examined subjects. It is, therefore, important to try to prevent cheating, but also to put your trust in the students.

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<sup>4</sup> See <https://koronavirus.mzcr.cz/od-20-4-2020.pdf>.

# General rules for organizing and holding state examinations

## Phase 1: Organizing the examination

As a part of distance state exams, more emphasis should be placed on communication with the student, not only due to sufficient advance notice when announcing terms, but also the method of technical support for the exam. Prior to commencing a state exam, the following steps should be taken:

- 1) **Set the term and manner** for holding the state exam and inform students and the committee sufficiently in advance;
- 2) **Check the technical conditions** prior to commencing the state exam.

## Terms and method of holding the state examination

When announcing the terms, the deadlines set out in the Special Rules for Studies at CU must be upheld<sup>5</sup> and any adjustment to the rules for the state exam that the dean has established based on these Special Rules.

- The administrator<sup>6</sup> of the exam creates the **online meeting** in the selected tool. When selecting the tool, the capacity and possibilities of the tool must be taken into account, e.g. reserving the virtual room in Adobe Connect sufficiently in advance. When planning the term, it is also important to consider sufficient breaks between the exams (to account for complications during registration, tuning the settings for ideal transmission, slowness of the transmission, etc.).
- Students register for the exam via SIS based on the announced terms.<sup>7</sup> It is important for the student to be **aware when registering for a specific term that it is a distance exam and what tool is being used.**
- Students must also be informed of what will be needed for the state exam (technical equipment, Internet connection, etc.)

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<sup>5</sup> We are waiting for registration. The link will be provided.

<sup>6</sup> The administrator can be the programme guarantor, a member of the committee, or the secretary of the workplace, who will supervise in particular the technical side of the exam (e.g. participation of the public or setting up the recording process and checking for unsolicited manipulation of the recording, etc.).

<sup>7</sup> Registered terms for distance exams count towards the minimum number of terms registered by a faculty.

- The administrator sends the registration link to the student by e-mail to the student's address provided in SIS and also shares with the student the necessary information for holding the state exam (or instructions for installing the tool).<sup>8</sup> It is also recommended to set the term of the test call in the selected tool.
- Prior to the exam, it is recommended to acquire the telephone contact for the student. This measure is used as an emergency contact in the event of technical difficulties during an exam.

### **Inspection of technical conditions**

To ensure the technical aspects of meetings, the selected videoconference software/application must be installed, ideally on more than one device (notebook, phone). Due to the technical requirements of both of the above software, the software must be installed on the side of the **examiner and the examinee**. To prevent technical problems, it is recommended that all exam participants (administrators, committee members, and exam takers) do the following:

- Prior to testing, check that the selected software is functioning and up-to-date (so that it does not start to update when the videoconference starts);
- Check the camera, microphone, and earphones (earphones are preferred to speakers because they produce less audio feedback which worsens the sound quality); check the Bluetooth connection for the earphones, etc.;
- Check software controls, switching of windows, opening a chat window for resolving problems, feedback, etc.;
- Make a test call in the software sufficiently in advance verifying all key functions (sound, picture, sharing desktops, and recording).<sup>9</sup>

For recording videos, it is recommended to use **OBS Studio**. This must be installed by the administrator (or a person who is responsible for making the recording) – see the instructions for installation and setting up OBS.<sup>10</sup> In this software, a separate recording will be started at the same time after starting the test in the selected tool. When set correctly, the output format will be suitable for saving to ESSS CU without further modification. In addition, a double recording

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<sup>8</sup> Note: If you decide to test in a tool that does not have an agreement on the processing of personal data, you must always inform the student that there is a possibility of sharing their data with a third party or outside the European Union.

<sup>9</sup> In the settings, MS Teams allows you to make a test call without connecting, but with respect to tuning any possible technical deficiencies, it is recommended to make a test call between the administrator and the student.

<sup>10</sup> .

prevents potential problems when making recordings (typically a Wi-Fi outage, a damaged recording in the test tool, etc.).

If a student does not have appropriate technical equipment (e.g. a laptop with a video camera, microphone, and speakers, Internet connection), they may contact the Carolina Centre to borrow such equipment: [centrumcarolina@cuni.cz](mailto:centrumcarolina@cuni.cz) (however, the capacity of the Carolina Centre is limited).

## Phase 2: Commencing the examination

The following procedure is adapted for testing that is not preceded by individual student preparation, and the exam begins with verification of identity. If individual preparation (so-called wristbands) is necessary, the procedure differs slightly, depending on the options of the selected testing tool.

- I. The student and committee members (or also the administrator) connect to the planned online meeting.
- II. A designated committee member commences the state exam according to the exam type:
  - A. **If the exam is recorded**
    - A designated committee member informs the student that the exam will be recorded and that nobody may manipulate with the recording process. **The member then turns on the recording of the distance exam.** The exam is recorded in two places simultaneously – in the selected tool and also in **OBS Studio**.
    - The examiner **requests that the student turn on the microphone and the video camera and identify oneself** by stating their first name and surname and also, for example, by showing their state or student ID to the camera.
    - The examiner requests that the student show the environment around them using their video camera (circling the room with the camera to ensure that nobody else is in the room and that there are no textbooks or other devices, etc. behind the computer or the desk).
  - B. **If the exam is public**
    - The examiner **requests that the student turn on the microphone and video camera and identify oneself** by stating their first name and surname and also, for example, by showing their state or student ID to the camera.



- **ATTENTION!** The part for verifying one's identity must take place between the committee and the examinee only without the presence of the public! Thus, in the case of the public, it is important that this part take place first and only after should access be allowed to the public.
  - The examiner requests that the student show the environment around them using their video camera (circling the room with the camera to ensure that nobody else is in the room and that there are no textbooks or other devices, etc. behind the computer or the desk).
  - The administrator allows access to the public (waiting in the tool's lobby), and thus no longer allowing additional members to join.
- III.** Due to the subsequent documentation, the examiner must always state the **exact date and time for the start of the exam.**
- IV.** The examiner requests that the student share the entire screen of their computer, not just one application (verify the visibility of the Windows/MacOS/Linux main application panel).
- V.** The examiner requests that the student turn off all active applications or applications running in the background, except the application in which the exam is running (possible to check using Task Manager).
- VI.** If it can be verified that the student has cheated, this is considered a disciplinary offence.<sup>11</sup>

### Phase 3: Holding the examination

- **Drawing questions:** If questions need to be drawn, we recommend following the regular rules. The drawing can be done in this case by the examiner. However, the credibility of the process must be verified (e.g. show that set of questions is complete and will be drawn in front of the camera; drawing by an electronic tool guaranteed by the faculty, etc.). Drawings may be organized, for example, by using Microsoft Forms.
- The examiner can view the transmission primarily from the student's camera and check if the student is trying to cheat (frequent movement of eyes when the student is trying to read something; whether other voices are not heard in the room; whether the camera does not film another person, etc.).
- Designated committee members should also check the shared desktop of the student's computer.

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<sup>11</sup> For more information, see, for example, Section 64 of the Higher Education Act and the Code of Ethics of Charles University: <https://cuni.cz/UK-9490.html>.

- For the entire period of testing, the student should only have the exam application displayed or a text editor with their preparations for the exam, or other permitted applications if required by the nature of the exam.
- For a more natural environment for the student, it is recommended that the examiner turn on their camera. In this way, the student may respond more naturally to the questions.
- It is recommended that the committee members who are not speaking turn off their microphones and turn them on only when speaking. If noise disturbance occurs during the distance exam, the examiner will turn off all microphones except for their own and will inform all present persons of the disturbance, including the student, and request that it be corrected. After being corrected, the examiner requests that the student turn on their microphone again and then let's the student speak again.
- **If the connection is lost or if there is a technical difficulty** that leads to the exam being interrupted, the examiner must first and foremost attempt to reconnect with the student. If the exam is definitively interrupted, it is in the competence of the committee to determine whether the current progress made in the exam is sufficient for verifying the student's knowledge. Either studies will be evaluated in a standard fashion (e.g. if a substantial part has already taken place, and based on this, it is possible to evaluate the student) or the student will need to be tested again, or a substitute question will be asked. A term cannot be missed due to technical problems, either on the part of the student or the examiners. The faculty may specify the rules according to the tool and the process of controlling the study of a subject, but it must acquaint the students with them in advance.
- After answering all of the questions, the examiner **ends the exam**, and if a state exam is being recorded, the examiner **stops** the recording.
- The voting process is not recorded. Various options are used to secure the **voting of the exam committee**, typically according to the selected application for testing, e.g.
  - a) In addition to the exam, the committee may also open an online chat in which it may discuss/vote. In such a case, it must be verified that it is actually a chat outside the exam and that the student is not present during the voting.
  - b) Another option is an Excel file created in advance with the names of the examinees in rows and the members of the examination committee in columns. This file will be available and shared in advance only with the members of the examination committee. When saving the file on a shared space in Office 365, it is possible to edit this document simultaneously by all committee members.
  - c) The student is disconnected from the group (according to the possibilities of the tool), and after voting, is reconnected and then informed of the results.

It is important to ensure with all of the methods that the student is not present during the voting or that the voting table was not shared with the student.

During the defence of a dissertation and state PhD exam, a record and the results of voting must be kept, in accordance with Article 11(13) of the Code of Study and Examination of Charles University. Thus, this record must be stored even for distance examinations, e.g. taking a snapshot of the screen (printscreen) during the online voting in a chat or archiving the shared table with a record of the voting.

- In the case of recording a state exam, the recording is resumed and the committee communicates the result to the student. After communicating the result to the student, **the recording is ended.**

## **Phase 4: After the examination**

If in accordance with the regulations, a protocol must be created for the examination, it must be created in the same manner as in the case of an on-site examination (in a non-editable format, such as pdf) that the committee approves (e.g. per rollam). It is recommended to proceed according to the standard rules for creating protocols as a part of on-site examinations.

- For examinations allowing the participation of the public, you must make sure that everyone leaves the online meeting (or that the exam administrator removes the participants).
- If the examination was recorded, you must ensure that the video is downloaded according to the selected tool. In addition, the recording made in OBS Studio must be correctly saved in ESSS CU – see instructions below.

## **Holding examinations in MS Teams**

These instructions complement (but do not replace) the general rules for preparing and holding state examinations with respect to the specific characteristics of MS Teams. For ensuring all functions, it is recommended to have the MS Teams application installed as the desktop version.

### **Phase 1: Organizing the examination**

#### **Creating a term for the examination**

MS Teams has many options for creating online meetings. We recommend creating a meeting via the calendar and the button “New Meeting” (see instructions for Creating and Scheduling Meetings in MS Teams). When planning the terms, you can consider the number of students taking the exam, and according to preferences, create an online meeting using two methods:

- I. Create a separate online meeting/exam** for each examinee (i.e. each student will have their own online meeting corresponding to the term and time schedule of the state exam).
  - The advantage of this method is that each student has their own unique link to the meeting. No other student on the waiting list will be able to access it and thus no interruption will occur.
  - Another advantage is that, when recording, only one video is available to the student (to view – see below).
  - In the case of participation of the public, care must be taken to ensure that links to all online meetings are published.
  - The committee and other participants in the exam must always register for a new meeting.
  
- II. Create a joint online meeting/exam** for all examinees in one term (i.e. all students will connect to the joint meeting).
  - An indicative time schedule must be provided for student registration.
  - A disadvantage is that, when recording, you must create separate videos for each student. Also, all videos are accessible to all conference participants.
  - With the participation of the public, only one link needs to be published for the state exam.
  - The committee and the other exam participants are only in one meeting for the entire time.

### **Inspection of technical conditions**

The examiner/administrator **set it up in Meeting options** so that only the student and the examiner are in the role of presenter and can share the desktop, manage the meeting, etc. and also so that only people from the organization can be automatically allowed entry from the lobby (so that an anonymous person without an invitation does not connect to the meeting) – see the instructions Creating and Scheduling Meetings in MS Teams.

In addition to the **general rules** (see above), you should **inform the student** of the following in the invitation to the online meeting:

- The student must install the MS Teams application in advance.

- The student must be logged in to the local MS Teams application via their Office 365 account [IDnumber@cuni.cz](mailto:IDnumber@cuni.cz), (e.g. [12345678@cuni.cz](mailto:12345678@cuni.cz)) – see [instructions for logging in to MS Teams](#).
- The student may try the test call themselves in MS Teams (see [instructions](#)) – this call does not replace the option of a test call with the exam administrator. The instructions for setting up the camera and microphone can be found [here](#).

**Note:** You can also connect to the meeting in a supported web browser, Chrome or Edge, but the student will not be able to also use the camera and share the content of their computer's screen. Thus, it is highly recommended to install the MS Teams application in advance. When allowing participation of the public, participants other than the committee and the student do not need to install the application.

**RECORDING:** If you are recording in MS Teams, the recording is automatically saved to the Microsoft Stream service in MP4 format and made available even to the student. After finishing the recording in MS Teams and saving it to the Stream service, the meeting administrator needs to remove the student's access to the recording or the administrator needs to download the recording from the Stream service and then deleted it in Stream, making the recording inaccessible to the student. Instructions for working with Microsoft Stream can be found here: <https://docs.microsoft.com/en-us/stream/>.

The recording also takes place simultaneously in OBS Studio on the local computer of the administrator/examiner to prevent the recording from being intentionally or unintentionally switched off by the student or the examiner or to prevent any technical difficulties with the processing of the recording on the part of Teams.

## Phase 2: Commencing the examination

### 1. Separate online meeting/exam

- The committee members must log in to the specific online meeting of the examinee.
- **The student connects** to their planned online meeting/exam in MS Teams.
- In the case of arranging a student's preparation for the exam, it is possible for two simultaneous online meetings to take place at the same time:
  - One student prepares in their online meeting "in wristbands".
  - The other student is being tested in another online meeting.

**One of the examiners/the administrator** joins the online meeting, who will ensure the initial verification of the student's identity, check the settings on the side of the student, have the student draw a question (see general rules of the state exam), and supervise the

student during preparation. Meanwhile, another student's exam takes place in another online meeting.

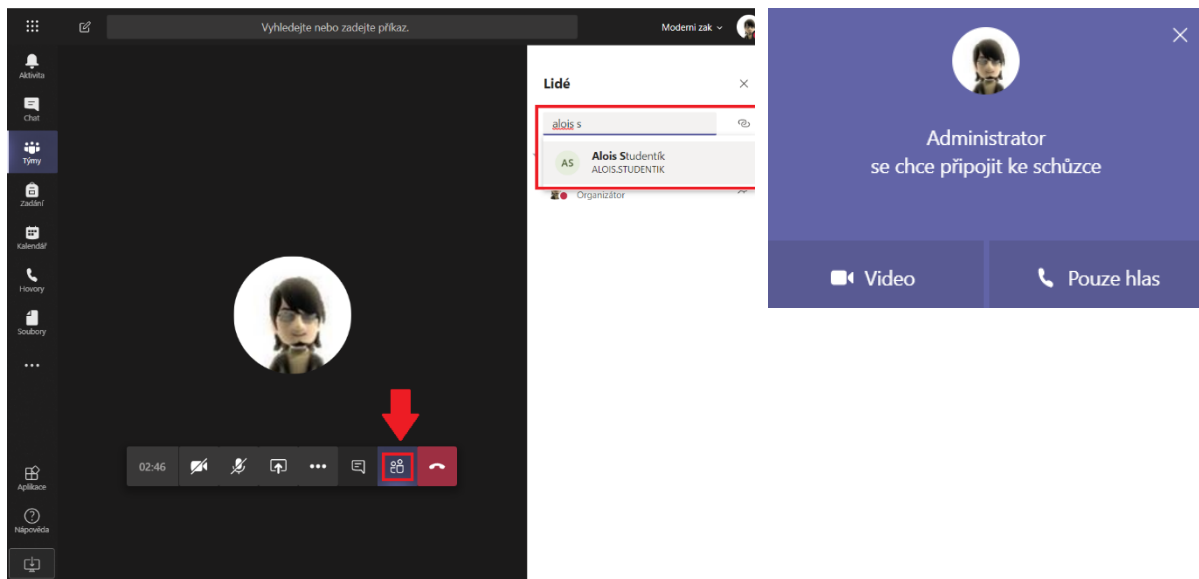
- In the event of recording, the examiner informs the student that the exam will be recorded and that the student must not manipulate the recording (in order for the student to share their screen, they must be in the role of presenter, thanks to which they have the right to turn on/off the recording in Teams).
- Note: After finishing the testing of one student, the committee must log in to the other meeting.

## 2. Joint online meeting/exam

- **The committee members connect** to the created online exam on the specific day.
- **The students connect on a gradual basis** according to the schedule agreed to in advance or they may be invited to the meeting in stages – see below.
- Student are invited to the distance exam.
- In the case of arranging a student's preparation for the exam, it is possible for two simultaneous online meetings to take place at the same time:
  - One student prepares in the "preparatory" online meeting.
  - The other student is tested in the "main" online meeting.

The student first logs in to the "preparatory" online meeting where one of the examiners/the administrator joins the online meeting, and who will ensure the initial verification of the student's identity, check the settings on the side of the student, have the student draw a question (see general rules of the state exam), and supervise the student during preparation. Meanwhile, another student's exam takes place in the "main" online meeting. After finishing the preparation, the student logs in to the "main" online meeting and takes the exam.

- This method is not recommended when recording a state exam, because two different videos would need to be created – preparation and testing. In the event of recording, the examiner informs the student that the exam will be recorded and that the student must not manipulate the recording.
- **Inviting students to the distance exam:** After the preparation, it is possible to invite the student ad hoc to the "main" online meeting, where the student will be tested. The student will then be notified in MS Teams that the examiner is trying to connect to them via an online meeting and will accept the invitation.



### Phase 3: Holding the distance examination

- For a more natural environment for the student during distance examinations, it is recommended that even the examiner turn on their camera. In this way, the student may respond more naturally to the questions and not feel separated from reality (online exams without visual contact could be confusing/stressful for people who are not used to it, which could affect their exam performance). If a student has problems with the quality of their Internet connection, turn off the incoming video of the examiners in Teams (Turn off incoming video).
- If there is sound interference during the distance exam, the examiner turns off everyone's microphone except their own (Mute all), informs everyone present, including the student, asks them to correct it if the cause of the interference is on their side, asks the student to turn their microphone back on, lets the student speak again.
- The examiners may also use chat during an exam, e.g. it is possible here to speak or ask another question.
- If there is a need among the examiners to **vote on the results of an exam**, it is not recommended to use chat/audio in an online meeting of an exam for this, because the student can also see/hear this.

The examiners may consult each other using a private chat in Teams OUTSIDE the meeting.

- After informing the student of the results, the examiner **turns off the recording** in MS Teams and also the local recording in OBS Studio.

## Phase 4: After the examination

- It is recommended to **leave a time reserve between the individual exams of students** (e.g. 5 to 10 minutes) for resolving technical problems on either side, etc.
- The records of online meetings/exams recorded in Teams are available in the Stream service. Note: If the exam was recorded in Teams, it is not desirable for the examinee to have access to the exam record. The meeting administrator or examiner who initiated the recording in Teams must remove the student's right to the record in the Stream service so that the student cannot access the record. **Alternatively, the meeting administrator or examiner who initiated the recording may download the recording, making the recording inaccessible to all participants in the online meeting.**

*Note:* Although the student in the default setting has the right to see the exam record (it is automatically shared with the student), the student is not entitled to download the record from the Stream service, provided the student has not initiated the recording themselves (see note on the ban on manipulation with the record by the student in the text above).



## **Checklist – State final examinations in MS TEAMS**

### **Organization of the state examination**

- Preparation of the meeting/terms of the exam in Microsoft Teams according to the assigned terms in SIS.
- Informing the student of the time of the exam and preparations in MS Teams.
- Sending instructions for installation.
- Making the test call.
- Inspecting the technical parameters.
- Inviting the student to the online meeting for the state exam (according to the registered terms in SIS).
- (In the event of participation of the public, publishing the link for logging in.)

### **Holding the state examination**

- All committee members and the student logging in to the online meeting.
- (turning on recording)
- Verifying the student with an ID card, inspection of room and tech parameters (+ inspection of application), sharing of screen.
- (In the event of participation of the public, confirming the exam participants, waiting in the lobby.)
- Informing about the exam.
- After the exam, the committee decides on a mark and communicates the results to the student = completion of the exam.
- (ending the recording of the state exam)

### **After the examination**

- Downloading the record in MP4 format from Microsoft Stream (or removing the rights for participants of the state exam, including the student).
- Saving the record from OBS Studio.
- Saving the record to ESSS CU.

## Holding examinations in Adobe Connect

These instructions complement (but do not replace) the general rules for preparing and holding state examinations with respect to the specific characteristics of Adobe Connect.

### Phase 1: Organizing the examination

#### Creating a term for the examination

If selecting this tool, it is important to pay attention to the **timely reservation of a conference room**. This reservation must be made prior to announcing the term for the state exam. For making a reservation, contact the Centre for the Support of E-Learning: [tomas.nikl@ruk.cuni.cz](mailto:tomas.nikl@ruk.cuni.cz). You can use the following room for testing purposes: <https://el.lf1.cuni.cz/test/>.

After confirming the reservation, you must create and set up in the Adobe Connect environment the parameters for the conference room – see [here](#). By creating a conference room, you secure the space where testing can take place at various times on various days until the meeting organizer closes the conference room. This means that the students ALWAYS log in to one meeting using the SAME link, based on a schedule created in advance. Therefore, you should ensure sufficient time reserves between the individual exams.

In the settings for the meeting, select “Only for registered users or approved guests”: this access allows automatic log-on using a link sent to each user who has access to CAS. The conference organizer, i.e. the host, can also approve anyone who logs on using the link, even without log-on data for CAS.

If you select the option of recording the exam (without the presence of the public), you can also choose the access : “Only for registered users (guest access is blocked)”. This option ensures that only users with a CAS account can log in to the conference room.

#### Inspection of the technical conditions

In the invitation to the online meeting, **the student must be informed of the general rules** (see above) and the following:

- The student must install Adobe Connect in advance.
- The student logs in to the created conference room in Adobe Connect with their CAS user account.

The examiner/administrator (the one who created the room) is the “host” and has the most rights for setting other options. The host may:

- ✓ **assign** rights to other meeting participants (can change a guest to a speaker or host);
- ✓ **turn on video recording or stop/turn off video recording** (no other meeting member can manipulate the video);
- ✓ **Allow other participants access** to the conference room during the meeting (or remove a participant from an exam).

**RECORDING:** When recorded in Adobe Connect, the recording is automatically saved in the Adobe Connect service (web interface) and made accessible only to the creator of the room. The instructions for turning on the recording can be found [here](#).

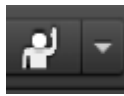
Recording takes place simultaneously in OBS Studio on the local computer of the administrator/examiner to prevent the student or the examiner from intentionally or unintentionally turning off the recording, or possible technical difficulties with the processing of the recording by Adobe Connect.


## **Phase 2: Commencing the examination**

- The host, i.e. the person who created the meeting, logs in to the conference room via the link.
- The committee members log in to the conference room via the link (using a CAS account).
- The host assigns the host right to committee members.
- According to the schedule set out in advance, the student also logs in to the conference room via the link (using a CAS account).
- In the event of recording, the responsible person in the role of host turns on the recording in Adobe Connect and also in OBS Studio on their local computer.
- In the case of participation of the public, participants who are not committee members will be approved by the host after the initial verification of the student (according to ID card or student card, which does not takes place in the presence of the public).

### Phase 3: Holding the distance examination

- During the exam, the examiner may also use chat, either in a **group** where messages are seen by all of the participants in the room (e.g. for asking additional questions) or **privately** where individuals are selected or subgroups of participants. As a rule, messages are sent to a group chat. For commencing a private chat, we select in the main menu **“Panel” - “Chat” - “New Chat”** – and the chat opens in a new window where we choose the option of the drop-down triangle (upper right-hand corner) and select **“Start chat with”**, where you can select either a group or an individual.



- Using the button , you can set a word log-in. You can also send a request for a louder/quieter or faster/slower call.
- If there is a need to vote on the results of an exam among the examiners, you may remove the student from the exam, and after voting, invite the student back to the environment. It is possible to use the distribution of users into groups/sections and to separate these sections. Communication then takes place separately. While the student is alone in the group, the hosts are in another group and communicate with each other – the student does not hear or see their communication.
- After informing the student of the results, the examiner **turns off the recording** in Adobe Connect and also the local recording in OBS Studio.
- After finishing the exam, the host removes the student from the conference. The room is now prepared for other exams.

### Phase 4: After the examination

- It is recommended to **leave a time reserve between the individual testing of students** (e.g. 5 to 10 minutes) in order to resolve any technical problems on either side, etc.

## **Checklist – State final examinations in Adobe Connect**

### **Organization of the state examination**

- Preparation of the meeting/reservation of terms for the exam in Microsoft Teams and subsequent assigning of the terms for the state final exams.
- Informing student of the time of the exam and its preparation in Adobe Connect.
- Sending the log-in link to the student.
- Sending the instructions for installation.
- Agreeing on the time for the test call.
- Inspection of the technical parameters.
- (In the event of participation of the public, publishing a link for log-in – see the general rules for the state exam.)

### **Holding the state exam**

- All committee members and the student logging in to the conference room.
- (turning on recording)
- Verifying student with an ID card, inspecting the room and technical parameters (+ inspection of application), sharing screen.
- (In the event of participation of the public, confirming the exam participants, waiting in lobby.)
- Informing about the exam.
- After holding the exam, the committee decides on the mark and communicates the result to the student = end of exam.
- (Ending recording of the state exam)

### **After the examination**

- Saving the recording from OBS Studio.
- Saving the recording to ESSS CU.

## Appendices

### Specification for making and storing audio/video recording of state examinations

When recording a state exam, the output format<sup>12</sup> of the recording must be as follows:

**For audio recordings in the form:**

container: mp4  
codec: mp4a-40-2 (AAC LC)  
sampling frequency: 48000 Hz  
number of channels: mono  
bitrate: 128 kb/s  
bitrate type: CBR

**For video recordings in the form:**

container: mp4  
codec: H264 (isom/iso2/avc1/mp41)  
resolution: 720x576  
number of frames/s: 25  
Colorspace: YUV  
Bit depth: 8  
bitrate: 1000 kbit/s  
bitrate type: CBR

Of these parameters, the format and codec are binding. Other parameters are recommended and affect the quality and data size of the output file.

It will only be possible to upload files for storage **in this format** for a period of five years according to law as **part of the student's type file**. After five years, the record will be destroyed as part of the shredding procedure.

Along with the tool in which the state exam is conducted, the OBS Studio tool will also be used to make a recording. The tool ensures a backup of the record in case of a crash of the platform used for testing (Adobe Connect, MS Teams ...). In addition, it is possible to set the specific parameters of the recording mentioned above in the tool. With the correct settings, it will be possible to transfer the output record from OBS Studio directly to ESSS CU. The procedure of working with OBS Studio, as well as the instructions for transferring to ESSS CU, are regulated by a separate methodology.

The faculty designates the person for saving the file in the student's type file (typically an employee of the department, registrar's office, etc.)

In the electronic file service system (ESSS CU), a separate component of the student's type file was created "**Documentation for distance exams**", where you can save recordings of state exams. Together with this, an "**emergency**" **modification of the Filing and Shredding Plan of CU** was made:

File no. D/III/3

Subject group: Documentation for distance exams (type file component)

---

<sup>12</sup> The file with the output format is the file that will be saved in ESSS CU.

Shredding number and period: S/5

If a government authority requests the recording, this request is saved together with the video.

**Should you have any problems saving the file to ESSS CU**, you may contact the following person:

[josef.pisecky@ruk.cuni.cz](mailto:josef.pisecky@ruk.cuni.cz)

**Should you have any problems with converting the video**, you may first contact your local IT support. Problematic issues relating to conversion may be consulted at the following address: [andrej.farkas@ruk.cuni.cz](mailto:andrej.farkas@ruk.cuni.cz)

**The maximum size** of the saved file is **1.5 GB**.

Due to the fact that the record contains a lot of biometric data, **more permanent storage on employees' devices is not allowed**. Storage will be provided **only** through ESSS CU. **If you have any questions about the protection of personal data**, please contact: [gdpr@cuni.cz](mailto:gdpr@cuni.cz)

In **SIS**, the (non-mandatory) **option to insert a link** will be added to the record of the state final examination, on which it will also be possible to download the record saved to ESSS CU.

To ensure compatibility, technical support, and regulatory compliance, it is recommended that you primarily use Adobe Connect and Microsoft Teams for recording state exams.

# Repository of recordings of distance state examinations in ESSS CU

- Maximum size of attachments of recordings in ESSS CU is **1.5 GB** (for **audio recordings** in the form: container: mp4, codec: mp4a-40-2 (AAC LC) and for **video recordings** in the form: container: mp4 codec: H264 (isom/iso2/avc1/mp41))<sup>13</sup>

## Procedure for storing records of distance state exams in ESSS CU:

1. Creation of an outbound document (highlighted in yellow).



2. Record in ESSS CU is completed as follows:

- In the field “**Agenda**”, you select “CU – Studies” and in the field “**Document type**”, you select “Record of distance exam”

Zařadit do sběrného archu

Agenda: UK - Studium | Druh dokumentu: Záznam distanční zkoušky

Věc: Záznam distanční státní zkoušky studenta

Značka ČJ: [input]

Typ dokumentu: digitální dokument

Adresát: Student UK

Identifikátor osoby ID studia: [input] | Hledat ve WhoIS

---

Počet listů	Druh příloh	Počet příloh
1	písemné	0

Způsob vypravení: nedoručuje se | Obálka: bez obálky

Datum vytvoření: 22.04.2020 9:49:55 | Datum vypravení: [input]

Lhůta: 30 | Vyřídít do: [input]

Datum doručení: [input] | Datum právní moci: [input]

Důvod nedoručení: [input] | Datum nedoručení: [input]

Poznámka: [input]

Věcná skupina: [input]

Spisový znak: D/III/3 Dokumentace distančních zkoušek (součást typového spisu) - S/5

Přílohy

Soubor: Procházet... | Soubory nevybrány

Uložit | Zavřít

<sup>13</sup> ESSS CU rejects other formats.



- In the field “**Subject**”, it is possible to add the first name and surname of the student after the automatically added text “Record of the distance state examination of the student”
  - In the field “**Document type**”, you can check the value of the digital document
  - In the field “**Addressee**”, you can check the value of the “CU Student”
- Searching for student by:
    - “Personal Identifier” or “Study ID”:**  
You enter the personal identifier or the Study ID and confirm by clicking on “Search in WhoIS”. The data of the student is automatically completed in the record – see image

Adresát  
Student UK

Identifikátor osoby ID studia  
12345678

Hledat ve WhoIS

Adresát  
Student UK

Identifikátor osoby ID studia  
12345678 584120

Hledat ve WhoIS

Oslovení

Titul před Příjmení Jméno Titul za Datum narození  
X Y

Emailová adresa  
xyosoba@email.cz

Ulice č.p. č.orient.  
Uliční 0

PSČ Město/obec Datová schránka  
12345 Město

Stát Jiné

Rekomando Odesílací pošta

Adresář ARES PSČ ISDS Vyčistit

- **B) First name and surname:**  
You enter the first name and surname of the student and confirm by clicking on “Search in WhoIS”. The data of the student is automatically completed in the record.

Adresát  
Student UK

Identifikátor osoby ID studia

Hledat ve WhoIS

Oslovení

Titul před Příjmení Jméno Titul za Datum narození  
X Y

Emailová adresa

Ulice č.p. č.orient.

PSČ Město/obec Datová schránka

Stát Jiné

! In the case of multiple studies – The specific Study ID associated with the final exam must be selected (see image below). The data of the student is then automatically completed in the record.

Adresát  
Student UK

Identifikátor osoby ID studia

Hledat ve WhoIS

Oslovení

Titul před Příjmení Jméno Titul za Datum narození  
X Y

Vyberte odpovídající osobu 3 záznamy

ID STUDIA	WHOIS	PŘÍJMENÍ JMÉNO	FAKULTA	TYP STUDIA	STUD. PROGRAM	STUDIUM OD / DO
<input type="radio"/>	438620	19588818 XY	FF	B	B7310 Filologie	03.09.2014 29.09.2015
<input type="radio"/>	625649	19588818 XY	FF	N	N0322A120002 Archivnictví a pomocné vědy historické	23.09.2019
<input type="radio"/>	623637	19588818 XY	FF	B	B6145 Humanitní vědy	23.09.2019

Identifikátor osoby: 12345678 | ID studia: 625649 | Hledat ve WhoIS

Oslovení:

Titul před: X | Příjmení: ? | Jméno: Y | Titul za: | Datum narození:

Emailová adresa: xyosoba@email.cz

Ulice: Uliční | č.p.: 0 | č.orient.:

PSČ: 12345 | Město/obec: Město | Datová schránka:

Stát:  | Jiné:

Rekomando:  | Odesílací pošta:

Adresář | ARES | PSČ | ISDS | Vyčistit

- In the field “Attachment type”, you enter “electronic” and in the field “number of attachments”, you enter the quantity of attached files.
- In the field “Dispatch method”, you check the values “not to be delivered” and “no envelope”.
- You fill in the “Creation date” by clicking on the clock on the right (see image below).

Datum vytvoření: 20.4.2020 10:48:42 | Datum vypravení:

Lhuta: 30 | Vydít do: 20.5.2020

- In the field “File number” you check the entered file number **D/III/3 – Dokumentation for distance exams (S5)**.
- You confirm the record by clicking on “Save”.
- A window then opens with a menu of the components of the student’s type file; you will add it to the file “Dokumentation for distance exams” (see image below)

Zařazení do typového spisu

Vyberte součást, do které bude dokument vložen 3 záznamy

NÁZEV
<input type="radio"/> Dokumenty trvalé hodnoty
<input type="radio"/> Dokumenty dočasné hodnoty
<input checked="" type="radio"/> Dokumentace distančních zkoušek

- When adding, there could be a delay. Wait for it to upload.

Zařazení do typového spisu  
pracuji, čekejte...

Dokončit Zavřít

- The saved record is in the status “Missing delivery”. You can find it in overview of your documents (the “person” icon – see image below)



- Due to the volume of the uploaded file, an attachment to the record must be added after saving the record.
- You add an attachment by clicking on the “file” icon (see image below). A new window appears and you click on “Add”.



UKRUK/124840/2020

PŘIDAT

Přílohy - Obrázky 0 záznamů

Přílohy - Ostatní 0 záznamů

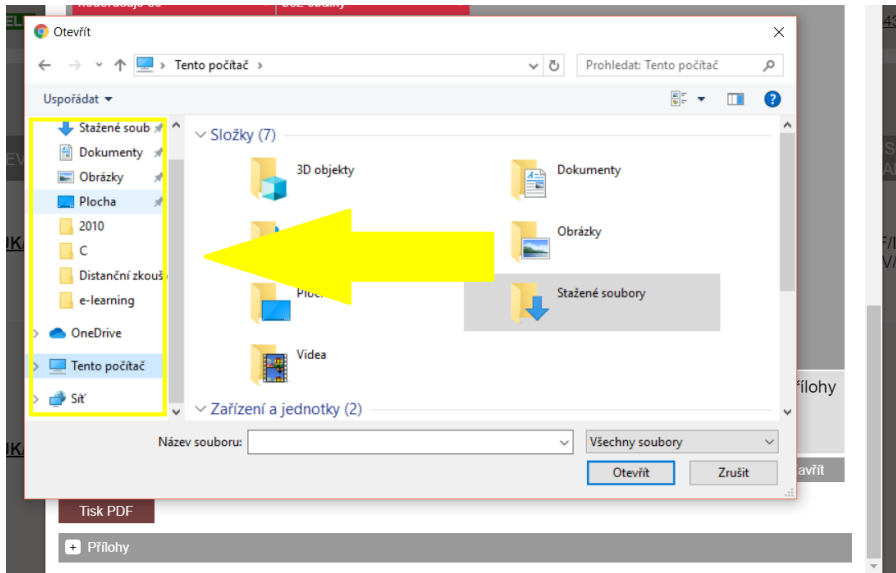
Pro novou verzi dokumentu použij ikonu editace na příslušné příloze !!!

Zavřít

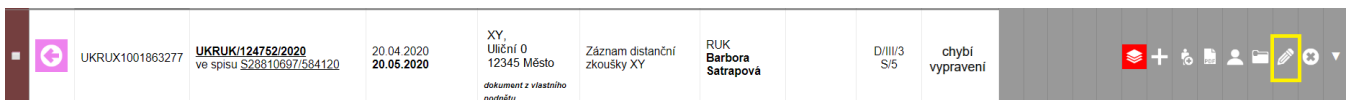
Niže jsou uvedeny přílohy pro konkrétní příjemce. Upload přílohy konkrétnímu příjemci je možný v editaci dokumentu.

Celková velikost souborů je 0B

- The maximum size of a video is 1.5 GB (for audio recordings in the form: container: mp4, codec : mp4a-40-2 (AAC LC) and for video recordings in the form: container: mp4 codec: H264 (isom/iso2/avc1/mp41)). With respect to network operation and system, uploading the file could take several minutes. ESSS CU is equipped with a functionality that controls whether the file format is appropriate for long-term storage.
- The system component is opened and you upload the file. If there is more than one file, mark them using your mouse and holding the Ctrl button.



- After uploading the file for the recording, click on the “pencil” icon (see image)



- In the details of the record, fill in the “Date of delivery” (click on the clock on the right). In the field “Reason for non-delivery”, you select “Own record” and fill in the “Date of non-delivery” (click on the clock on the right).

- The record is now in the status “Completed, for closing”



- Detail of the document in the type file

PID spisu: S 12345678 /584120  
 (šablona typového spisu: Typový spis studenta)  
 Zobrazit obsah typového spisu

Údaje o čj./spisu

LISTŮ	PŘÍLOH	LHŮTA PRO UZAVŘENÍ	DOSTUPNOST	ROK ZAČÁTKU ARCHIVACE	REŽIM	ULOŽENO V REGISTRATUŘE/SPISOVNĚ	POZN
			Pro všechny oprávněné				

Historie Export do XML

Křížová vazba 0 záznamů

Přidat do tohoto dílu čj./arch

Přidat celý spis jinému útvaru nebo zpracovateli

Oprávnění k čj./spisu 0 záznamů

Přidat oprávnění

S 12345678 /584120 - Student XY - chronologicky 2 záznamy

Vytvořit nový odchozí dokument do sběrného archivu

SMĚR	JID	PID, EVIDENČNÍ, SPIS	DATUM PŘIJETÍ, K VYŘÍZENÍ DO	ODESÍLATEL, ADRESÁT	VĚC	VYŘIZUJE	VYŘÍZENO	SPISOVÝ ZNAK	STAV
	UKRUX1001863277	UKRUK/124752/2020 ve spisu S28810697/584120	20.04.2020 20.05.2020	XY Úřadní B. 12345 Město dokument z vlastního podnětu	Záznam distanční zkoušky XY	RUK Barbora Satrapová		D/III/3 S/5	vyřizeno, k uzavření

Spisový přebal: formát A3 Vytisknout spisový přebal

Spisový přehled: započítat přebal včetně poznámek v editovatelném formátu Vytisknout spisový přehled

The video can be saved only in ESSS CU. More permanent storage on employee devices is not permitted, given that the record contains a large amount of biometric data. After saving to ESSS CU, the video must be deleted from all other employee devices.

## Procedures for using OBS Studio for making recordings of distance state examinations

These instructions will help you prepare the record of distance testing. Given that MS Teams or Adobe Connect does not support video output in a format appropriate for long-term storage and subsequent electronic shredding from the Electronic File Service System of Charles University (ESSS CU), we have found a solution through the freely accessible program OBS studio.

This will record the desktop of your computer, which you will use to perform the test. This record is already in a format supported by ESSS CU. **Remember that your desktop is recorded, so please keep MS Teams or Adobe Connect in the foreground for the duration of the test and do not click on other content/windows.**

To simplify the complicated settings, we have prepared a recording profile for you, which you can download and import to OBS Studio according to the instructions. You will then check the settings and compare it with this manual, because different computers may have different configurations.

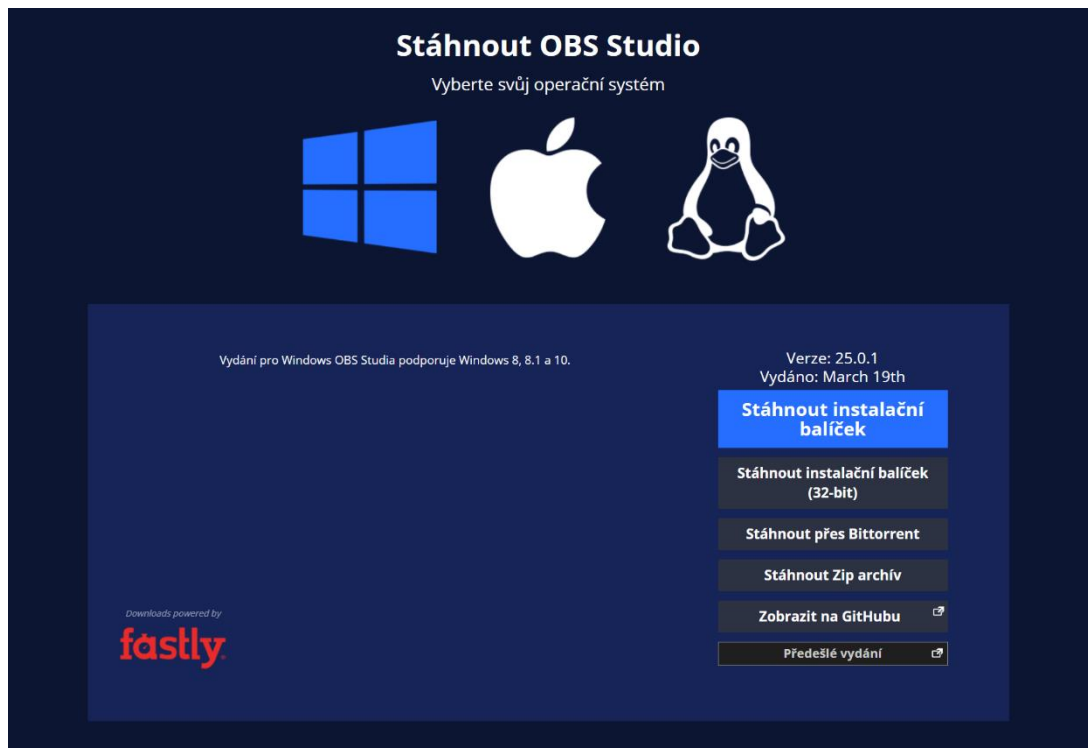
### To install this, you will need the following:

1. A computer in full configuration with an Internet connection (i.e. you have a microphone, camera, and other devices connected the same as on the day of the exam)
2. Access to the computer as the administrator
3. The program WinRar or another program for opening zip files (7zip...)
4. A file with a profile for OBS (Profil\_Statnice.zip); you can download it from this address: <https://cczv.cuni.cz/CCZV-283.html>

For better understanding, you can also watch the video instructions at the address: **(video je aktuálně v tvorbě, odkaz bude doplněn)**

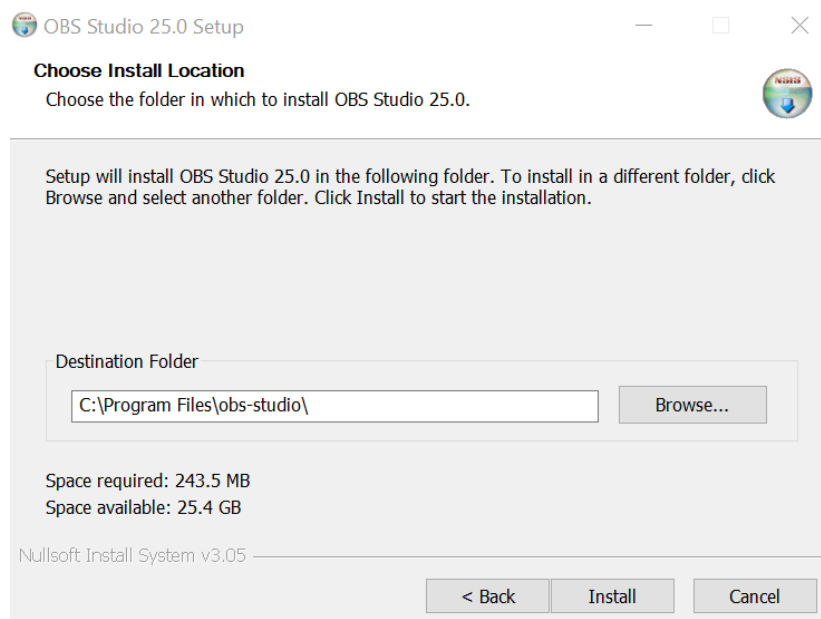
Should you have other questions or difficulties, you can contact the following person by e-mail: [andrej.farkas@ruk.cuni.cz](mailto:andrej.farkas@ruk.cuni.cz)

## 1. Installation of OBS Studio



At the address <https://obsproject.com/cs/download>, download the installation package OBS Studio for Windows by clicking on the blue button “Download the installation package”.

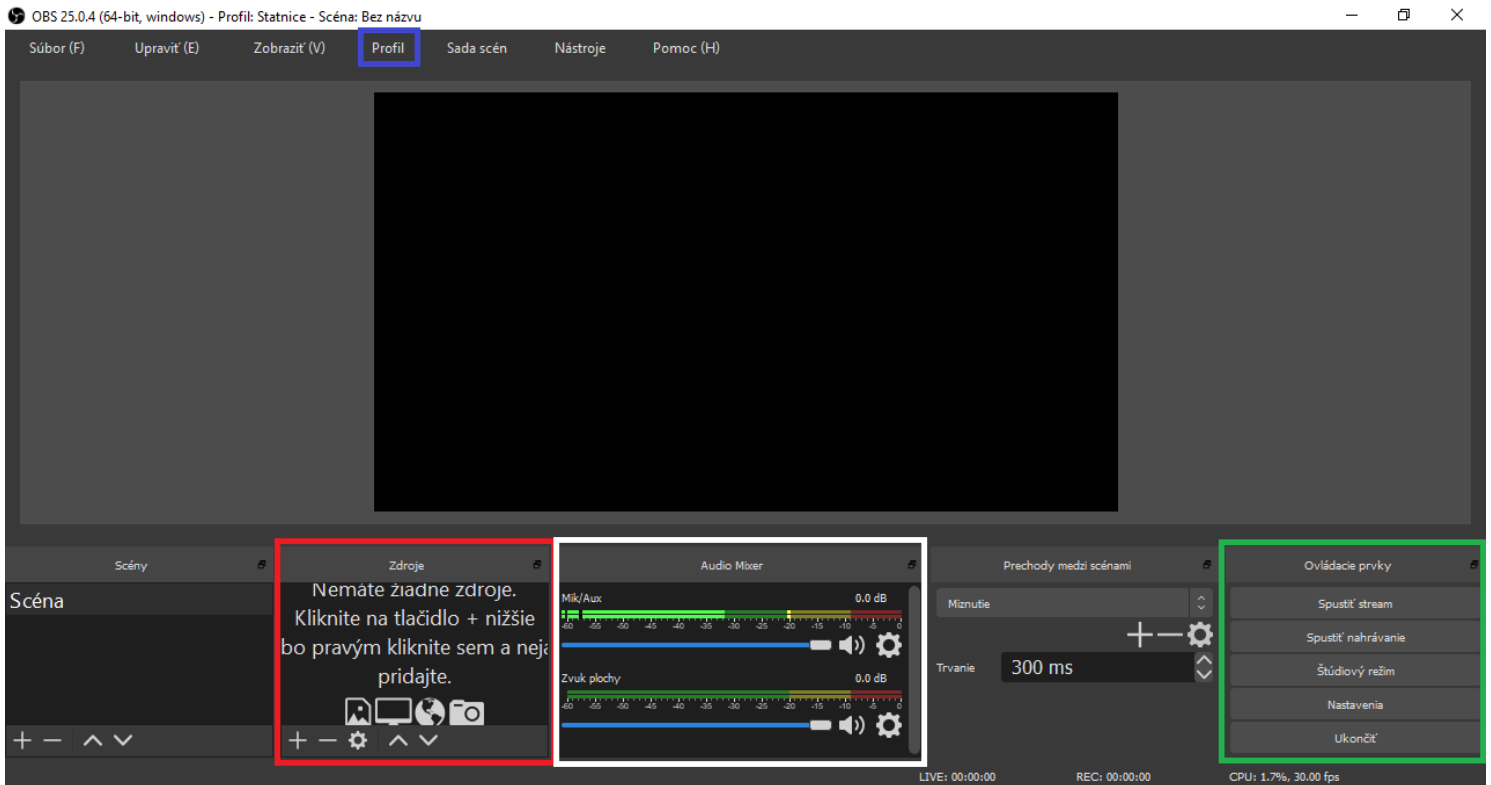
OBS Studio will be installed in the standard fashion. Just click on it. However, check the installation file “**...\Program Files\obs-studio**”.



## 2. Launching and settings for OBS Studio

The first time you start the application, you will be asked to start the wizard. This setting can be skipped.

By default, the application window is divided into an upper options bar, a preview of the future image in the middle, and a lower part for controls and settings.

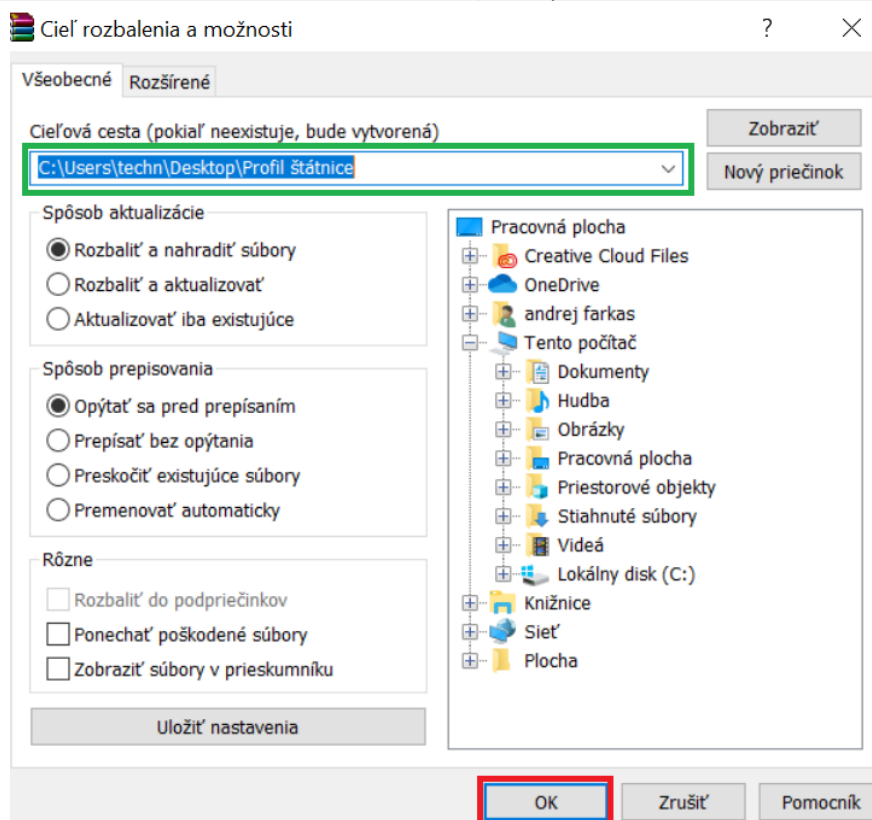
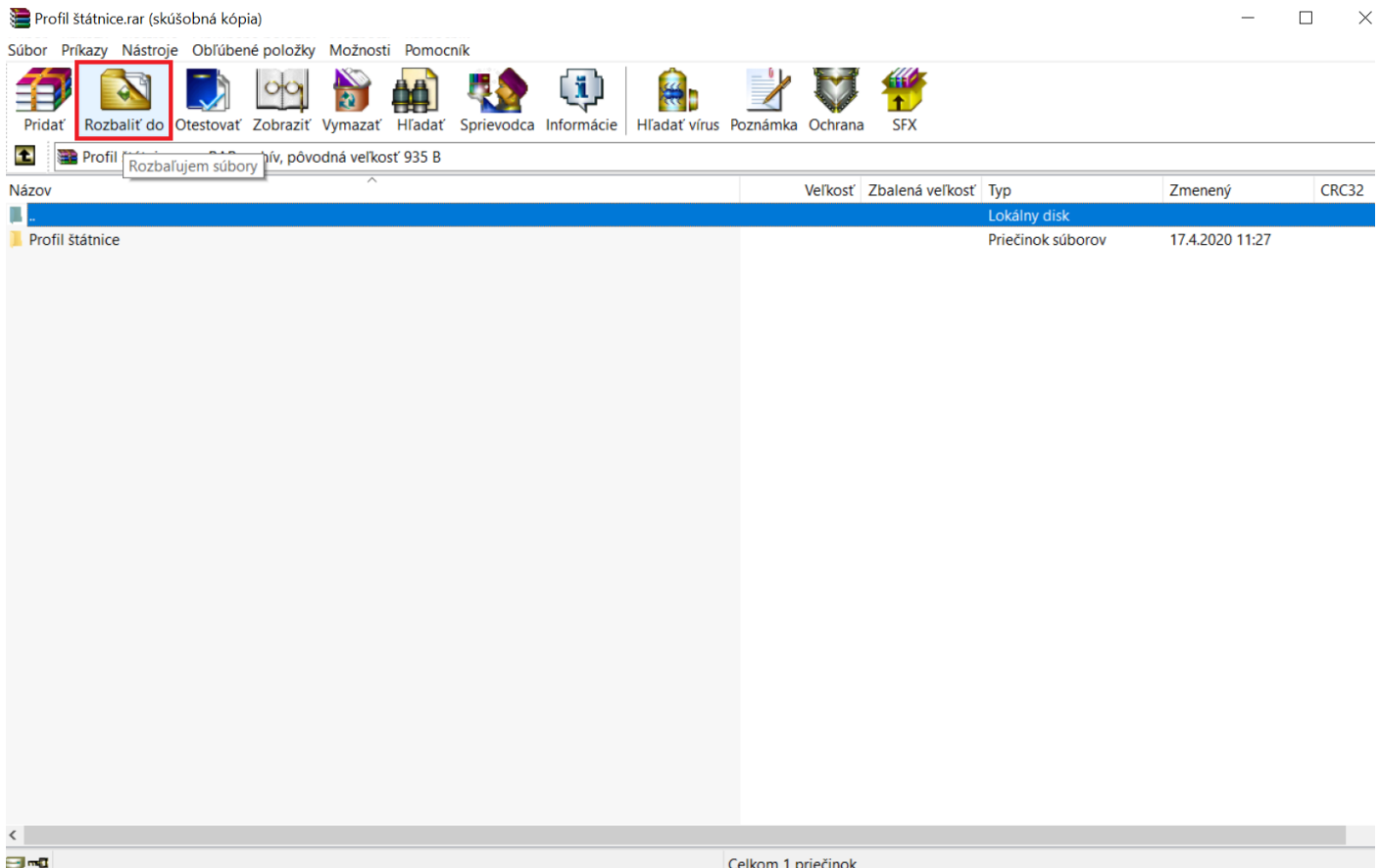


In the lower part, the important items for you are “Sources” (red), “Audio Mixer” (white), the group of buttons “Controls” (green), and “Profile” (blue) in the top bar. In the group “Controls”, there are the buttons “Settings” and “Start recording”. The essential buttons for us are highlighted.

Do not set anything in OBS Studio yet. First, insert the profile you downloaded. This will take care of most of the settings. To do this, we will use the WinRAR program or another program to open zip archives.

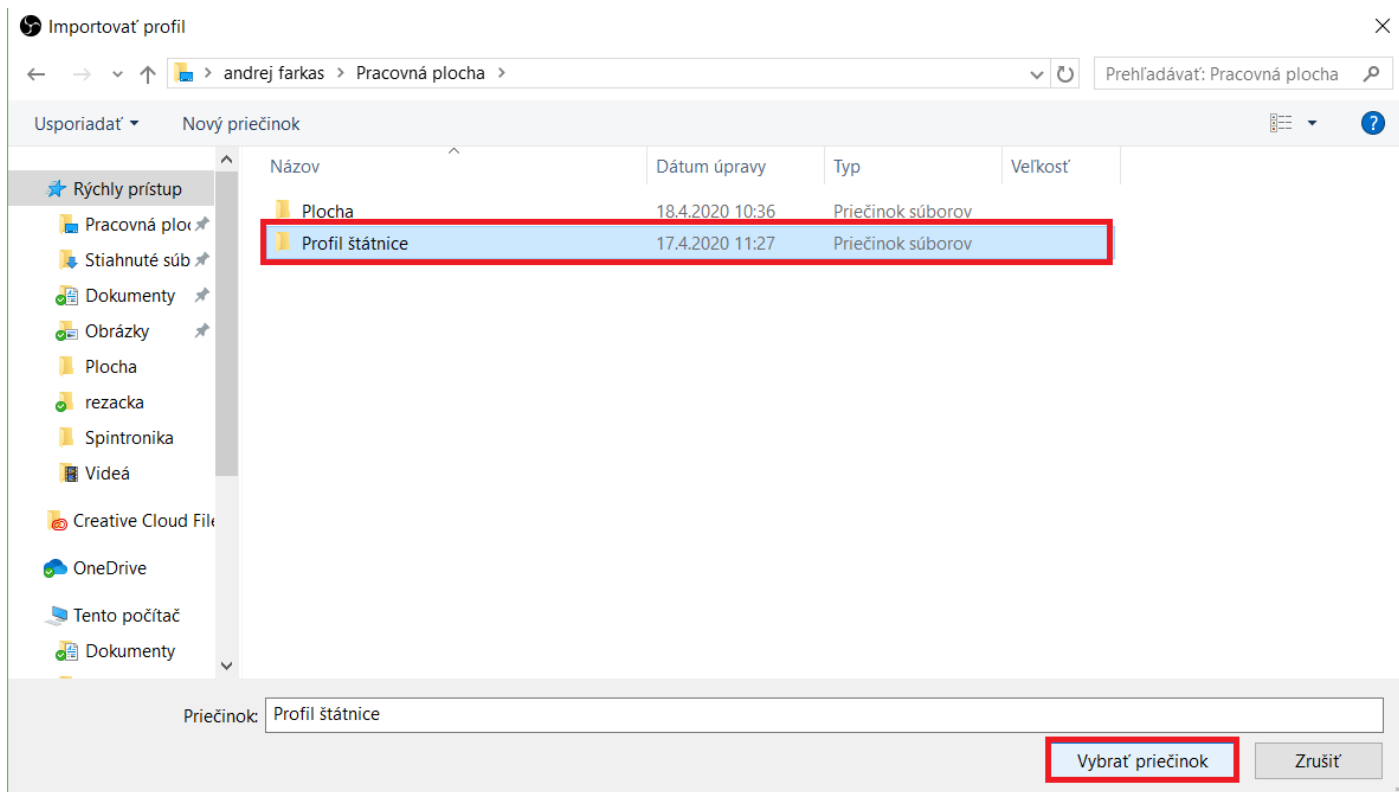
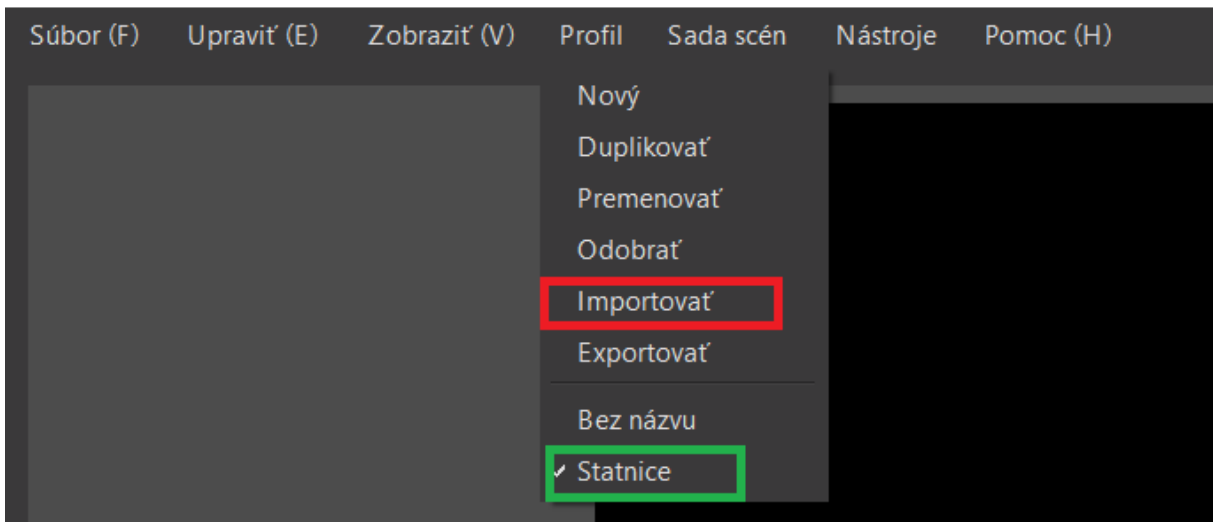


Open the file “Profil\_Statnice.zip” and extract it (Extract, red). In this way, you create the folder “State exam profile” in the location of the downloaded file “Profil\_Statnice.zip”. If you want to extract it in another location, change it in the green field.



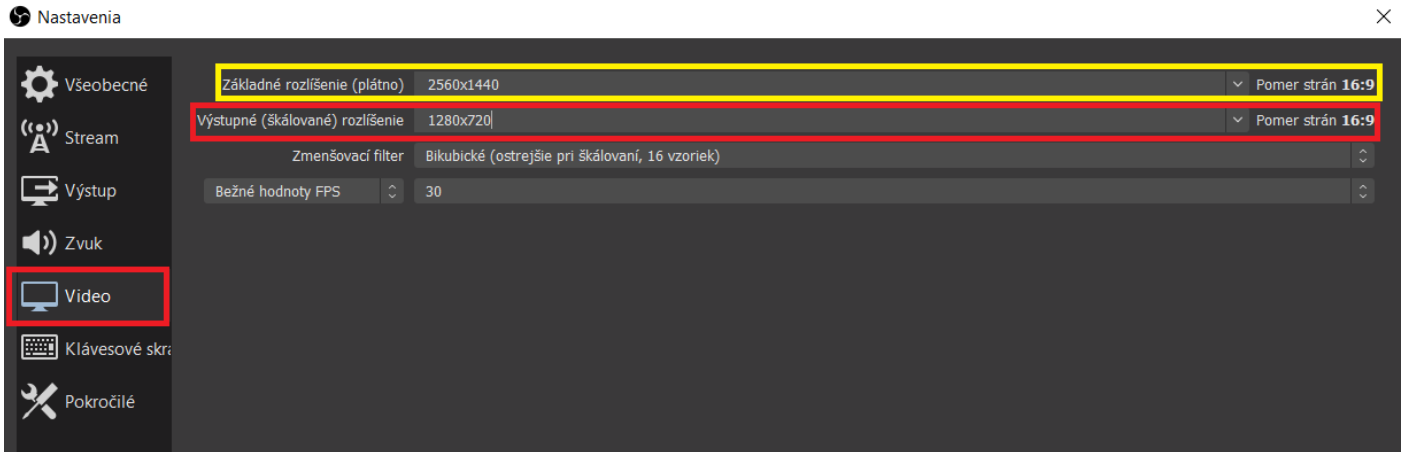
Now return to OBS Studio. Click on the “Profile” button in the top bar, then select the “Import” option (red). In the dialogue window, select the “State Profile” folder (red) that you extracted in the previous step. This configures the record to the required parameters. Then click on the “Profile” button again and select the “State Exam” profile (green) that you imported.

OBS 25.0.4 (64-bit, windows) - Profil: Statnice - Scéna: Bez názvu

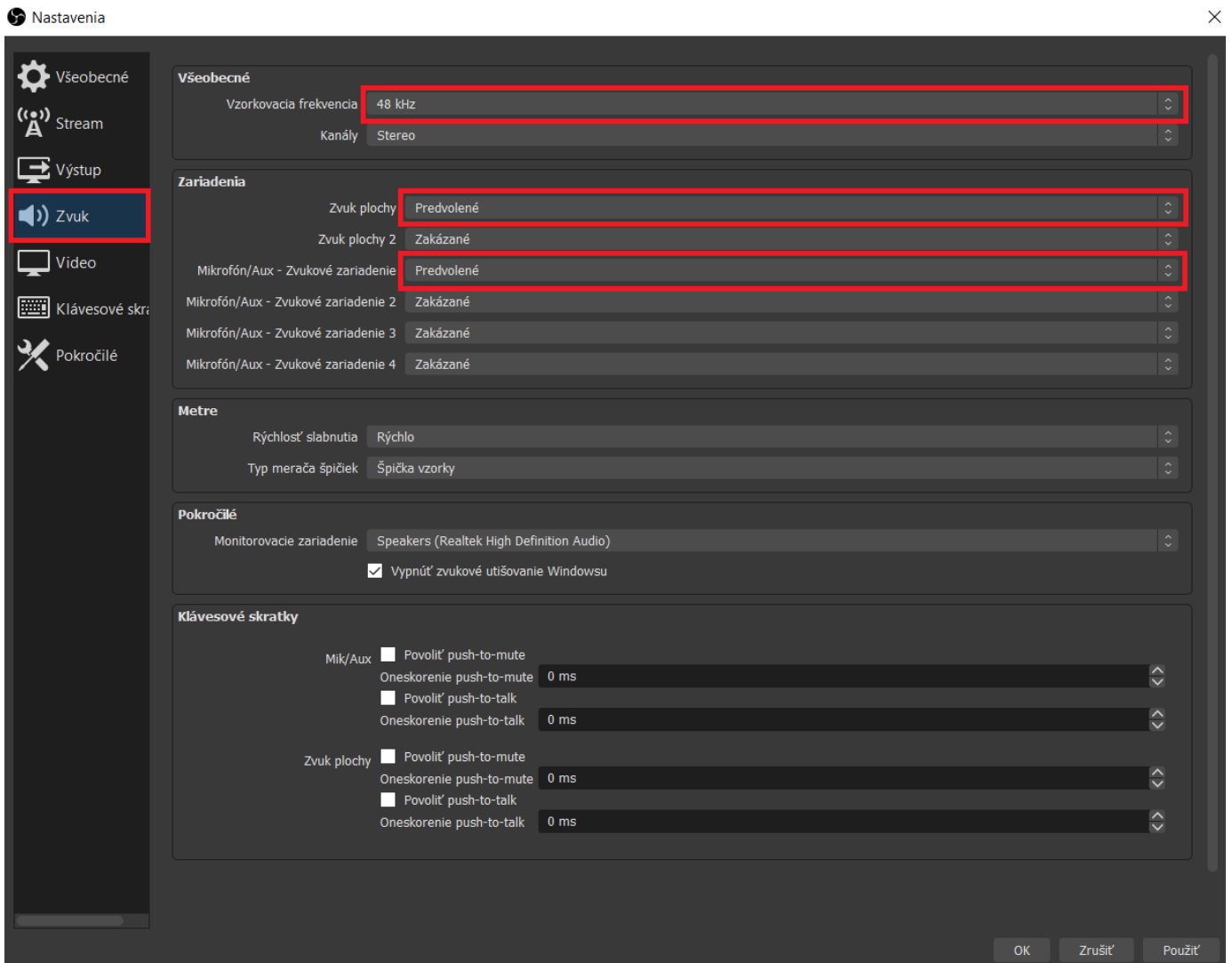


Then check that you have all the settings in order. In the “Controls” button group (far right), select “Settings”. You can compare all the items with the image at the beginning of Chapter 2.

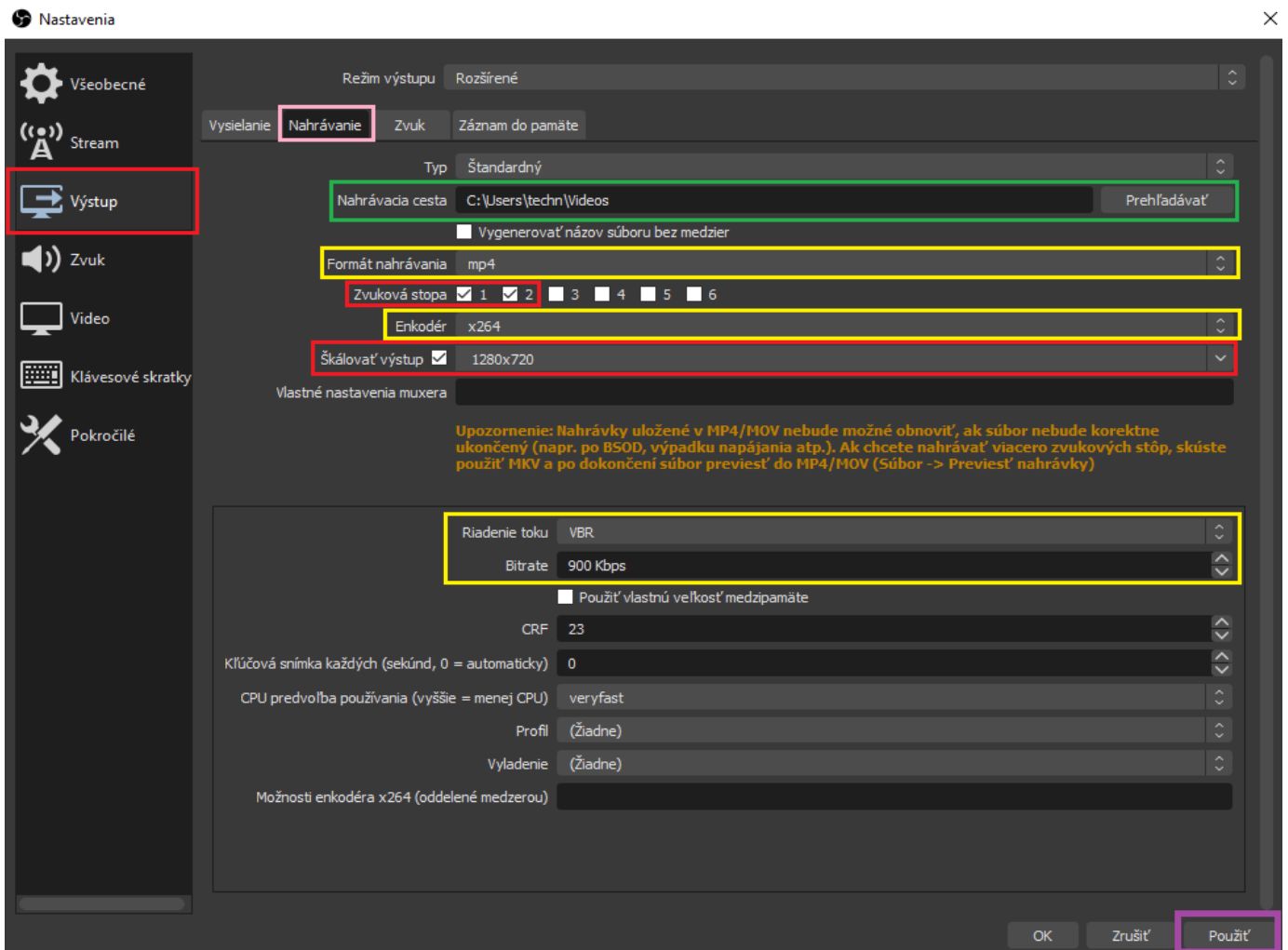
Select the “Video” section and check if the output resolution is 1280x720. The basic resolution should be the same as the resolution of your monitor (yellow). To check, you can click on Basic Resolution and select the highest item from the menu.



Now select the “Sound” section, in which you will check that you have selected “Desktop sound” as “Default” in the device options and similarly in “Mix/Aux”. In general, you should have the option “48 kHz” selected.

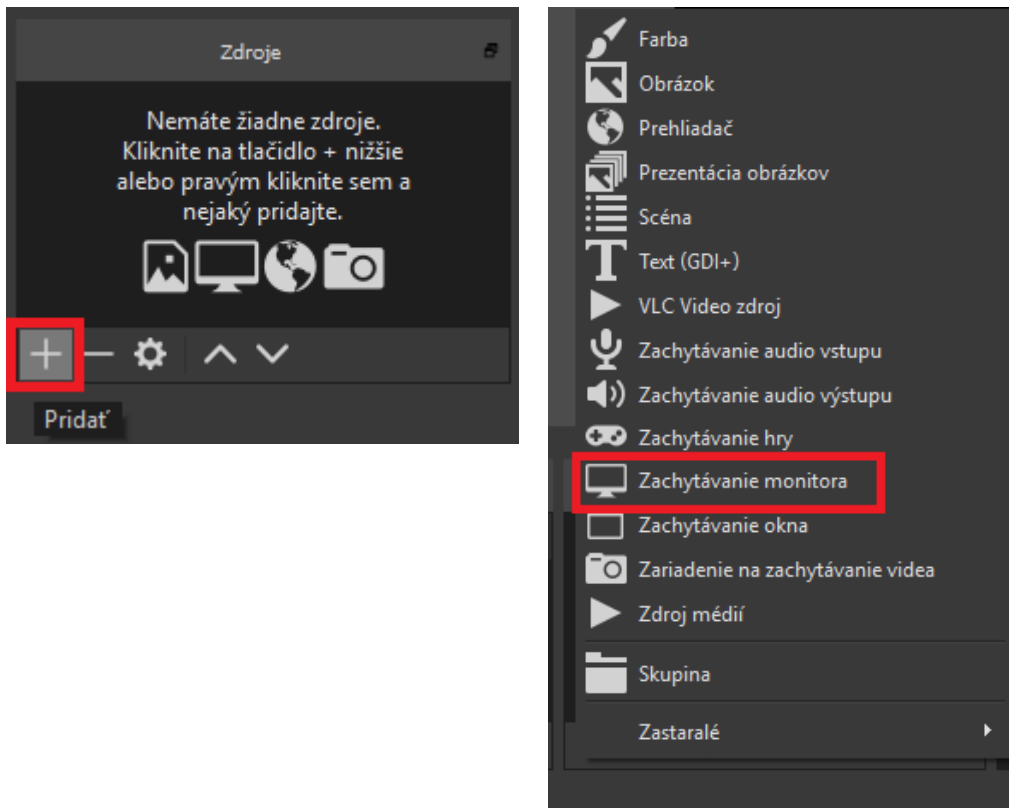


Last of all, check the “Output”. First, select “Output Mode” as “Advanced”. (blue) Select the “Recording” tab (pink) and select the folder where the recording will be saved. (green) Then make sure “Soundtrack” 1 and 2 is checked. (red) Compare the other settings with the image. (yellow)

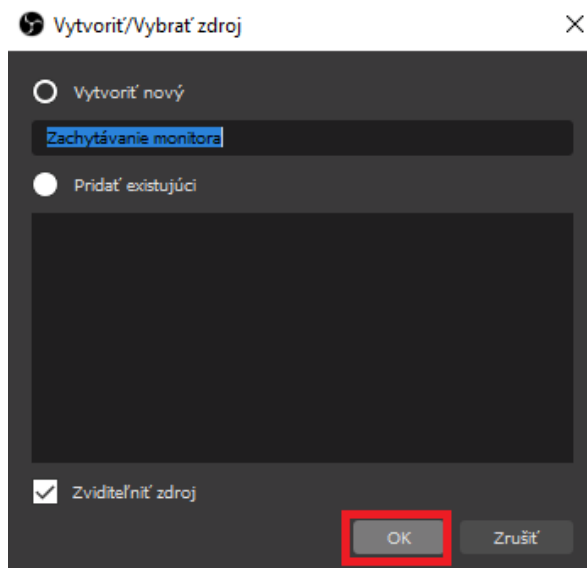


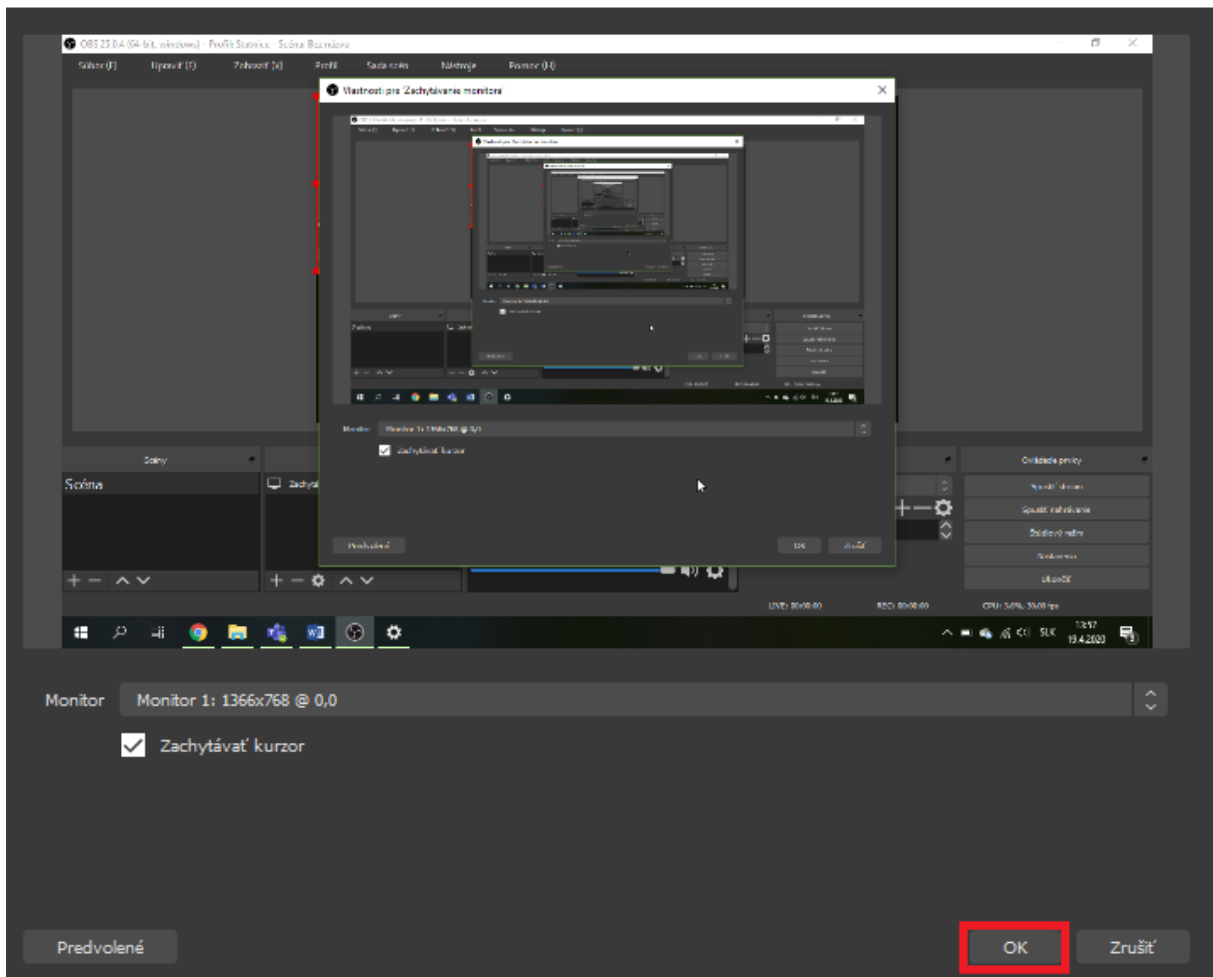
Now click on “Apply” (violet) and close Settings.

As the last step, set the source of the screen. In the “Sources” section (second item from the left), click on the button “+” and select from the menu “Capture monitor”.

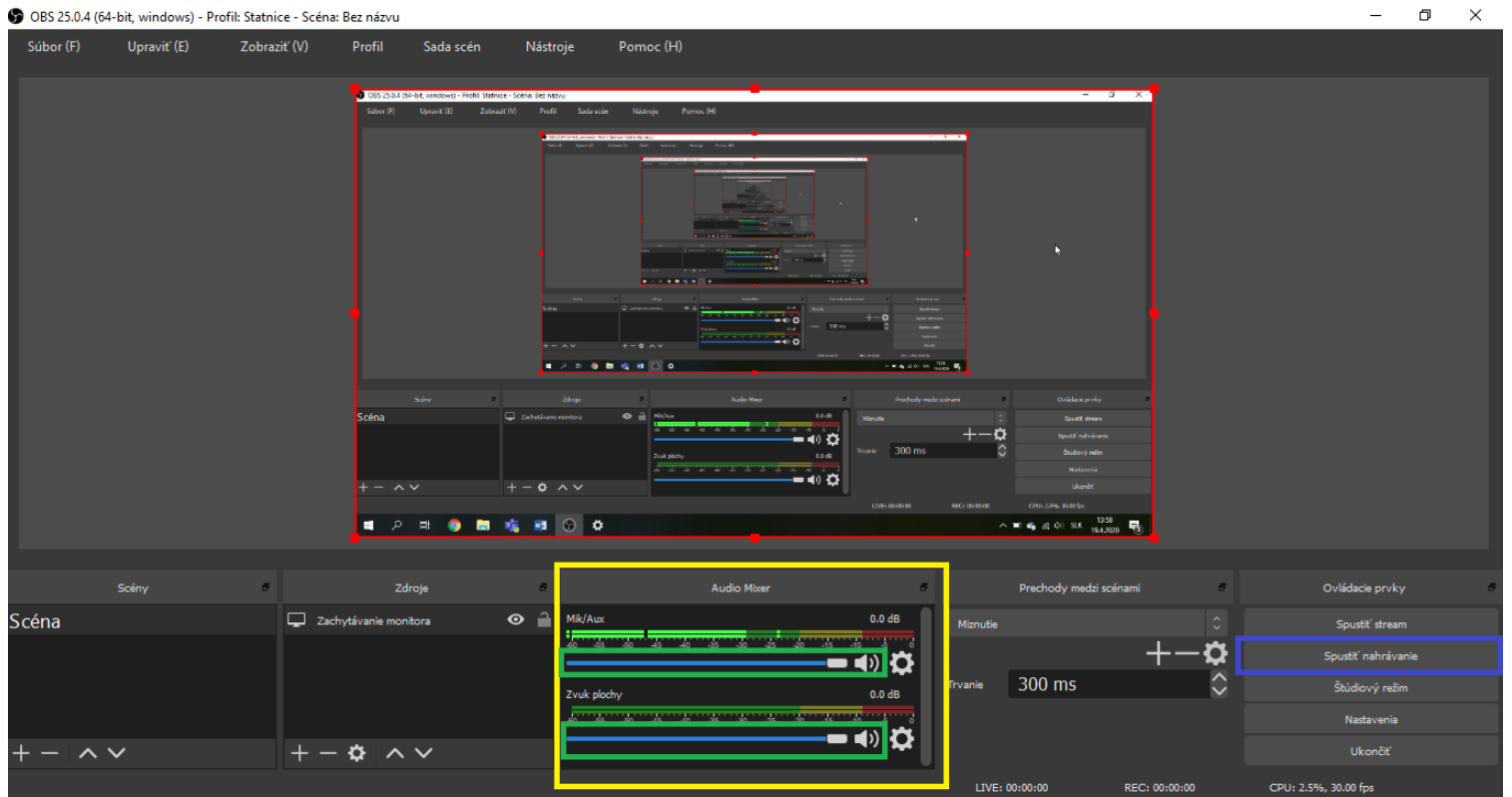


If you have a computer with only one monitor, all you have to do is click OK in both pop-up windows; if you have multiple monitors, you must select the one on which you will have the MS Teams or Adobe Connect window open.





Make sure that the image in the centre of the OBS window is completely filled with the image of your monitor. If not, use the red points in the corners to stretch it.



OBS Studio is now set up.

However, always test the connection with the student before recording. If both audio and video are working properly for you, return to the OBS program and, in the “Audio Mixer” section (yellow), adjust the volume level with the slider (green) so that the level is orange during normal speech. The top slider is your microphone, and the bottom is the student’s sound.

You can start recording with the “Start recording” button (blue) in the “Controls” section.