Bad Roads Well Built (BRWB) 2021
ZOOM - Install Guide

1 Introduction

For the online workshop BRWB 2021, the video conferencing software ZOOM will be used. It is the standard conferencing software at the Technical University of Darmstadt as well as in many other universities throughout the world. It is also used for the internationally renownded TRB Annual Meeting. It is quite similar to other tools like webex or teams.

In this document we try to describe how to make your equipment ready for participating in ZOOM meetings. In most cases it is quite easy. But we want offer some help also in cases that are not straightforward.

The following chart shows the different ways with their necessary steps to achieve this. The numbers refer to chapters of the document.
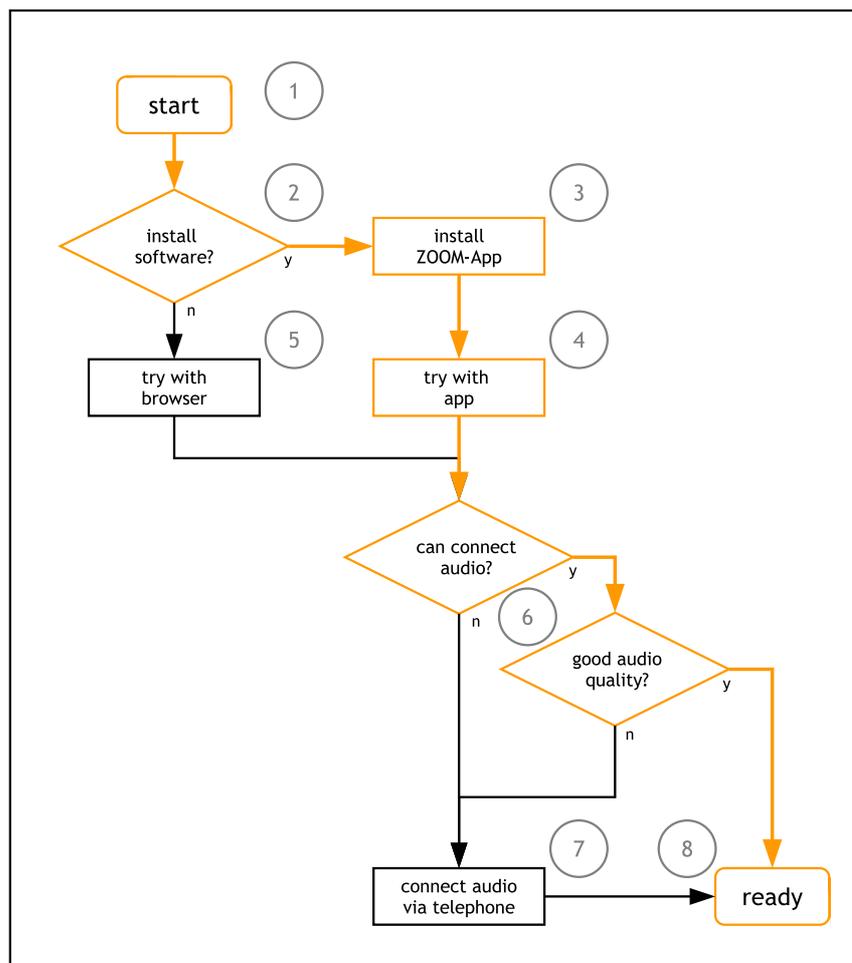

Figure: Flowchart for making your equipment ready for participating in ZOOM meetings.

brwb: installing ZOOM
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2   Are you able and willing to install a ZOOM App?

You will have the best user experience when using ZOOM with a specific application (ZOOM client). Such applications are available for many common operating systems: Windows, MacOS, Linux, Android, iOS/iPadOS.

If you can't or won't install specific software, ZOOM can be accessed via web-browser. For both options find more detailed instructions below.

The specific applications offer a wider range of functions and are more effective in the use of the computer resources. Unfortunately they require some sort of installation (with administrator privileges).

If you are able and willing to install an application, please proceed with chapter 3, if not, please proceed with chapter 5.

3   Installation and Usage of ZOOM Client App (Recommended)

For the mobile versions visit the appropriate app-store (Google Play or Apple AppStore). For the desktop versions visit https://zoom.us/download.

During the installation process you may be asked to enter an administrator password and/or whether you will allow access to the speakers, microphone or camera (for participating in discussions you should).

4   Try with App

To ensure that the installation was successful, a test meeting can be joined at https://zoom.us/test.

This link will open a webpage with some options and probably a dialog box asking for permission to open the app. To use the installed app, accept to open it or – if you are not prompted for – select the most prominent button "Launch Meeting". After some seconds you should be connected to the test meeting.

During the process you may be asked whether you will allow access to the speakers, microphone or camera (for participating in discussions you should try).

Continue with chapter 6.

5   Participation with Web Browser

If you can't or won't install a ZOOM client app, it is also possible to join meetings with an ordinary web browser. With most browsers you should be able to follow the presentations. Some of the browsers will be able to connect to audio also, with other you will need a separate telephone connection for audio.

Computer audio connection should be possible with:

- Google Chrome
- Firefox (newer versions)
- Chromium Edge (newer version of Edge under Windows 10)

You may test your options by joining a test meeting at https://zoom.us/test. This link will open a webpage with some options and probably a dialog box asking for permission to open the app. As you don't want to use the app, deny that permission. On the opened webpage you'll find some options: Ignore the most prominent button "Launch Meeting" (as this button would proceed to open the app). Try to find the link "Join from Your Browser" (normally it's written in small letters on the lower part of the website) and follow it.

A Conference window will appear, probably with a popup asking for connecting audio.

- If your browser supports audio connection, try it. You may be asked whether you will allow access to the speakers, microphone or camera (for participating in discussions you should try). Proceed with chapter 6.
- If your browser doesn't support audio, select the tab "telephone call" and note the information you need to connect via telephone (esp. telephone numbers for your country and the participants ID; meeting ID and passcode should be the same as on your invitation). Close the popup. Proceed with chapter 7.

6   Test your audio

The best way to connect audio is via app or via browser. If this is not possible or has a disappointing quality, it is possible to connect audio via telephone.

There are many ways to arrive at this part of the text. Therefore first of all, we must ensure, that your audio is not connected at the moment. For this reason please look at the following picture.

Figure: Example for a ZOOM-Window

It shows a typical ZOOM Window (app or browser). Most of the control elements of ZOOM are found at the lower edge of the window (perhaps visible only after mouse movement in that area). The button on the lower left is the audio button. Its label changes, depending whether you are connected or not, whether your mic is muted or not etc. In some configurations, on the right side of the botton a caret "^" is visible, the symbol for the audio menu.

- If the audio button doesn't show a headset with a green arrow upwards and a label "connect audio" (or similar), you are probably already connected. You may choose "test audio" from the audio menu (the caret "^" right of the audio button).
  - If you succeeded, proceed with chapter 8
- If the audio button shows a headset with a green arrow upwards and a label "connect audio" (or similar), then push that button (with the mouse). You should get a popup with to tabs: "telephone connection" and "computer audio".
  - If possible, choose "computer audio": Perhaps you'll be asked, whether you will allow access to the speakers, microphone or camera (for participating in discussions you should try). If that works, you may choose "test audio" from the audio menu (the caret "^" right of the audio button).
  - If you succeeded, proceed with chapter 8
- If you are still reading this chapter, you may have problems with computer audio (no connection possible or bad quality)
- If the audio button doesn't show a headset with a green arrow upwards and a label "connect audio" (or similar), try to disconnect by choosing "leaving computer audio" from the audio menu (the caret "^" right of the audio button).

- Now the audio button should show the headset with a green arrow upwards and a label "connect audio" (or similar) again. Push that button (with the mouse). You should see get a popup with to tabs: "telephone connection" and "computer audio".
  - Now try "telephone connection" and note the information you need to connect via telephone (esp. telephone numbers for your country and the participants ID; meeting ID and passcode should be the same as on your invitation). Close the popup.

7   Connect Audio via Telephone

Call one of the telephone numbers. You will be asked for the meeting ID and the participant ID, perhaps also for the passcode. Enter them with the keyboard of your telephone. Please be aware, that such a connection may cost (at least for the line to the access point, if you don't have a flat rate). In Europe, additional costs (to that of the line) have to be announced while connecting. But this is quite different throughout the world.

8   Ready for the Meeting

Now you should be able to see the conference video and have a audio connection (that you can mute or unmute at your discretion).

The next step is to try to connect your camera (that is not necessary to follow the workshop itself, but useful for discussions). Try to push the second-left button "start video". Perhaps you'll be asked, whether you will allow access to camera (for participating in discussions you should try). If the connection succeeds, you can use the button to switch the camera on or off.

During the presentations, your camera should be switched off and your mic should be muted to keep the data transmission amount low and to ensure a clear audio and video of the presenter.

Congratulation: You're done and prepared for the workshop.

If your equipment is ready for participating, it is quite easy to attend the workshop. Click on the appropriate invitation link, that we will provide shortly before the workshop.

Should a link be dysfunctional, you may follow "https://zoom.us/join". On that page you can enter the meeting ID and confirm. Then the process is similar to that described above except that you will be asked for the passcode.

In each case you should connect to audio in the way, that you had found appropriate for your equipment during the procedure described above (computer audio or telephone call). Please be aware, that while the telephone numbers should be the same throughout the time, meeting number, participant number and passcodes will change.

If you are curious, you may try to make some experiments with the program settings. E. g., the use of a second monitor / window may be helpful. But this is not really necessary.