

## Getting Started Using Statistical Software Inside the UIowa Virtual Desktop

For a Live Demo, see video introducing Mplus!

**Step 1a. If you are off-campus**, you will need to have the VPN running in the background. You can download the application and instructions here: <https://its.uiowa.edu/support/article/1876>

As explained better on this page, when the window pops up for you to log in, you will enter your HawkID name and password. The box called “second password” refers to a two-factor authentication method. If you type “sms” it will tell you that you could not log in, but ignore this. Enter your same HawkID and password, and then for the second password enter one of the six-digit codes that should have appeared in a text message. Alternatively, you can type “push” and it will ping your two-factor program for approval.

**Step 1b. If you are on-campus**, you will need to be connected to the eduroam UIowa network. To do so, your username is your **HawkID@uiowa.edu** (i.e., it is a combination of your HawkID name and an email-address-like ending, not your actual email address).

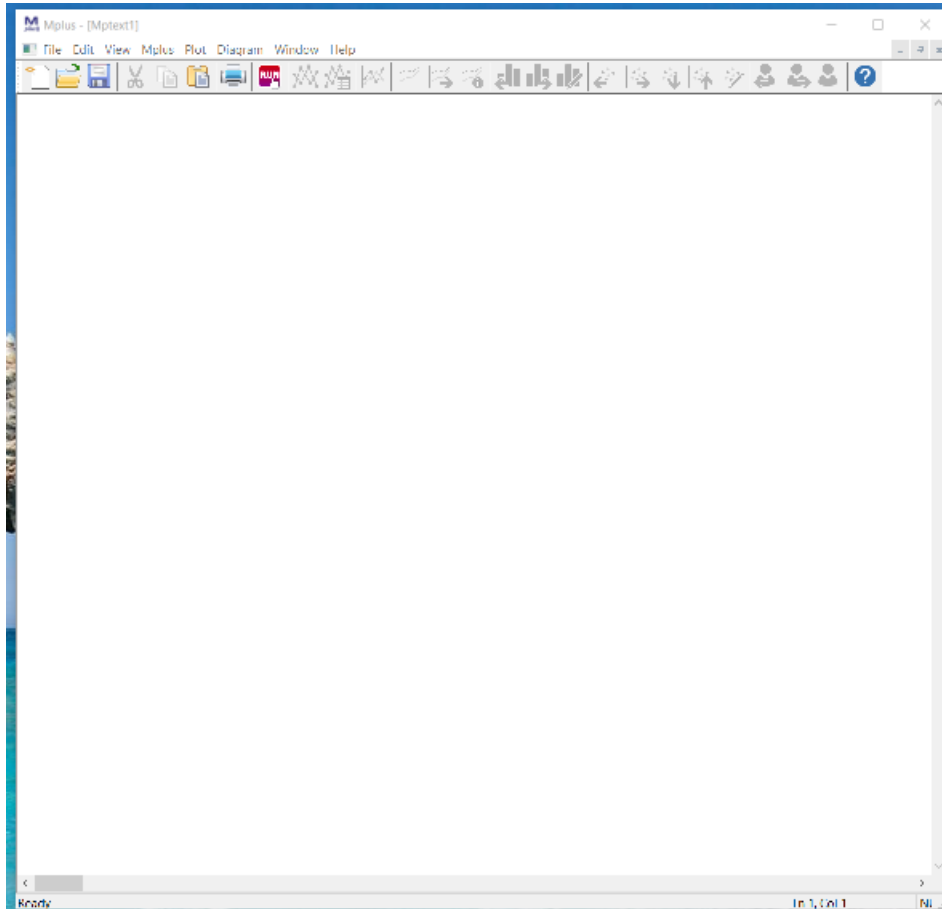
**Step 2.** If you haven't already do so, **map your H: drive to your computer**, which is a campus network drive that will be the most easily linked to the Virtual Desktop software. (You don't have to use it, but previous students have had the most success putting files here). Instructions to do so for both Windows and Mac are here: <https://its.uiowa.edu/support/article/104047>

**Step 3.** Download and unzip (extract) the intro to Mplus files linked here:

[https://www.lesahoffman.com/PSQF6249/PSQF6249\\_Mplus\\_Intro.zip](https://www.lesahoffman.com/PSQF6249/PSQF6249_Mplus_Intro.zip)

It will be easiest if you put the example folder inside your university H: drive (but any folder can be used). The folder includes an Excel data file (.xlsx extension), a comma-separated-values version of the Excel data file (.csv extension that will be used by Mplus as the data file), and two examples of Mplus program syntax (.inp extension) and output (.out extension) so you can see what each example program does. I also included the Mplus syntax guide I wrote to go along with the Mplus examples for my *Longitudinal Analysis* textbook (the first half of which will be relevant in learning Mplus).

**Step 4.** After completing steps 1-3, you can access the UIowa Virtual Desktop here: <https://virtualdesktop.uiowa.edu/Citrix/VirtualDesktopWeb/> Enter your HawkID name and password for the domain IOWA. Under Apps → statistical software, you can find Mplus v 8.4. Click on Mplus and it will open after a few minutes in a new window:



**Step 5.** Under the “File” menu, select “Open Program” and navigate to this file: Example\_Syntax\_TYPE=BASIC.inp. You should be able to run the file (red button) and generate output. You can then open the other input file (Example\_Syntax\_With\_MODEL.inp) and run it as well. The output has already been provided for you (but will be written over when you run it yourself. I will describe the syntax and output in the video.

**To edit your syntax files outside the program,** I strongly recommend using a plain-text editor, such as WordPad for Windows or TextEdit for Mac. I like the program TextPad, Here is a link: <https://www.textpad.com/download>