# A basic guide to run experiments in the LEMA

## Who can use LEMA

LEMA is a computer lab devoted to research in the behavioral sciences. Use of the lab must conform to all LEMA criteria; these are

- Lab use is for the purpose of conducting research (classroom use is not permitted).
- Research is conducted by a Smeal faculty or a student working under the supervision of a Smeal faculty. Penn State faculty and students outside of Smeal seeking access to the lab need request special permission from the lab director, Professor Tony Kwasnica (kwasnica@psu.edu).
- The research has been granted a valid Penn State IRB for use of human subjects.
- Subjects are paid monetary incentives based on their earnings (not just a flat fee) for participation.
- There is no deception involved in the experiment.

## Setting things up

**First you need to have completed the IRB training**. This is a requirement of Penn State (http://www.research.psu.edu/training/irb-basic-training).

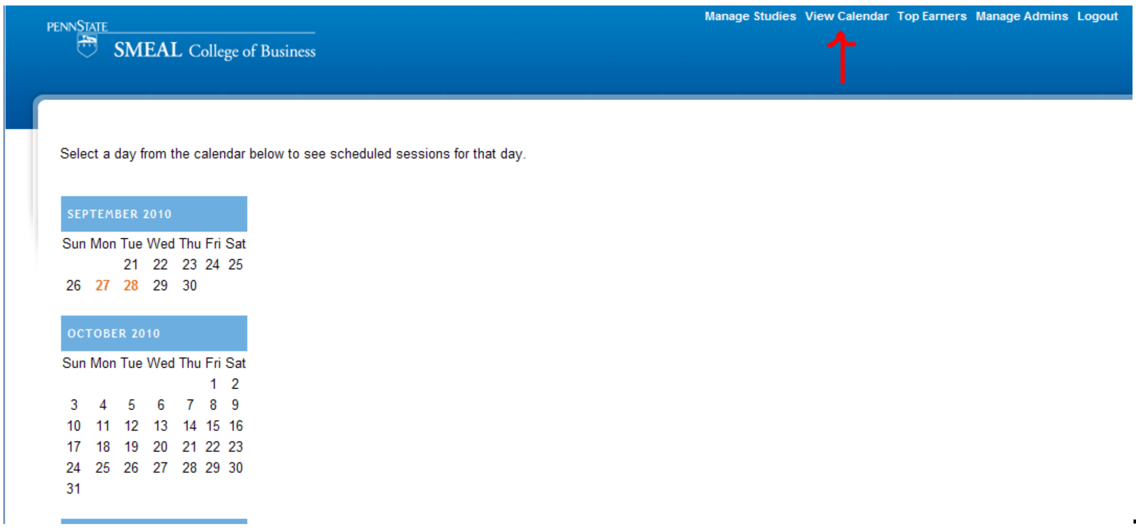
To gain access to the LEMA room and the online recruitment system, send an e-mail to lemara@psu.edu with your PSU ID number (the 9-digit number in the Penn State ID) and your affiliation. The activation of your card, so you can swipe it at the door of the lab to get in, usually takes between 1 and 2 business days. The access to the online recruit system is granted as soon as we read your e-mail.

## Using the online recruitment system

To create the sessions for your experiments, log in the following link: https://lema.smeal.psu.edu/recruit/admin/ .

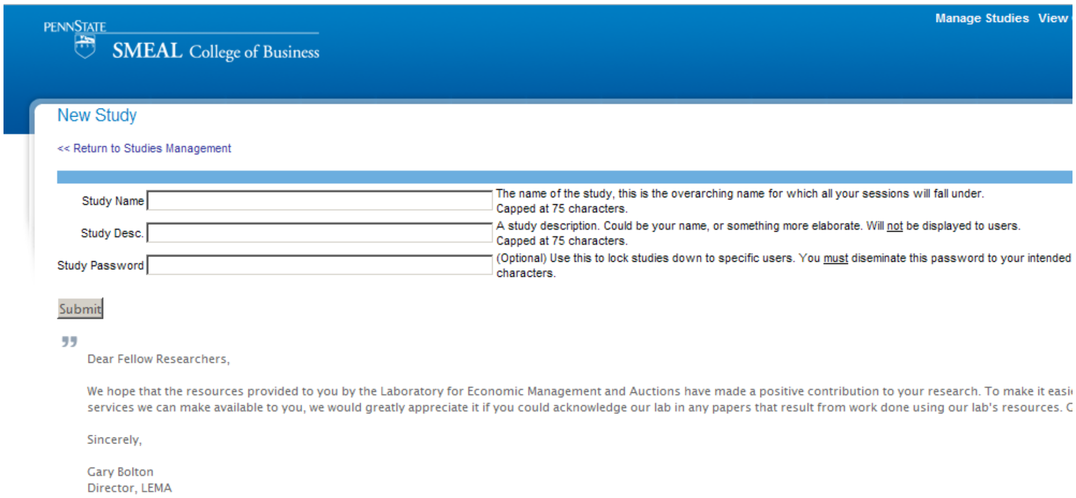
Please keep in mind that the norm in the experiments we run at LEMA, is to pay students for their participation, therefore, once sessions are available for signing up, subjects in our pool assume they will earn money. Also, they tend to prefer to receive cash to lioncash credit or gift cards. So please be VERY explicit about how you are going to pay them, when you send the invitation to participate in your sessions.

To check the lab availability click the “Calendar” link in the right top of the page (after you log in). If experiments are being run in a particular day, its number will be orange and you can click on it to see the hours and the room at which they are taking place in that particular day (it will say LEMA if they are run in the lab):

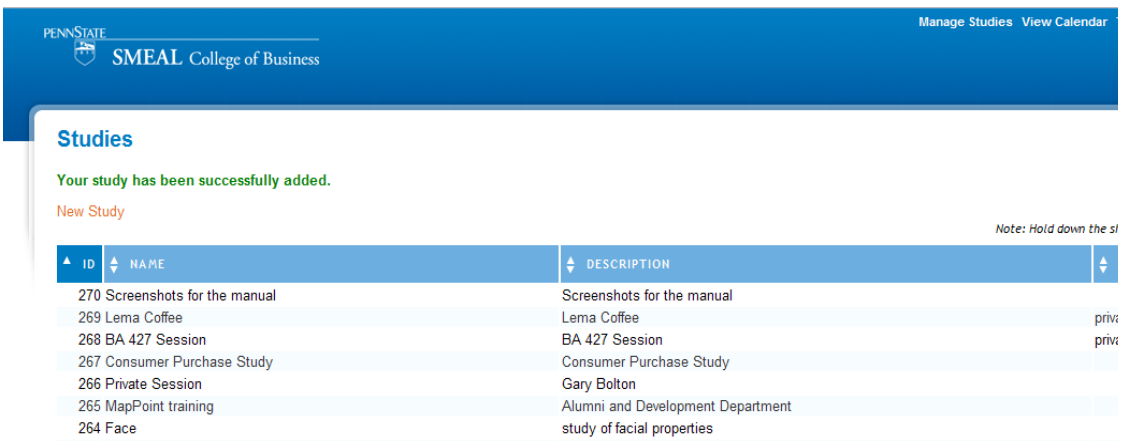



Once you are done reviewing the calendar, click “Manage Studies” in the top (to the left of the “View Calendar” link), and then click on the “New Study” link:

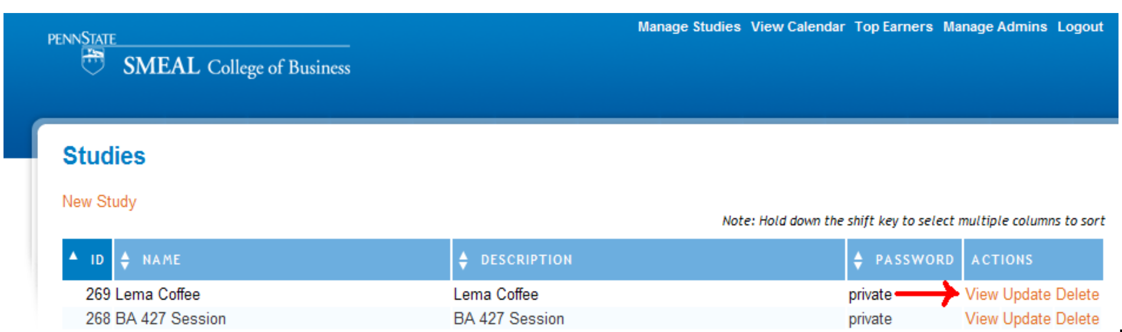

Next, you should see a page that asks you the name of your study, a brief description and whether or not the study is password protected. If you type something in the “Study Password” field, subjects will be asked to submit what you typed to be able to sign up for your sessions, so if you want your sessions to be public (meaning anyone with a PSU ID can register for them), leave that field blank. When you are done, click the “Submit” button.



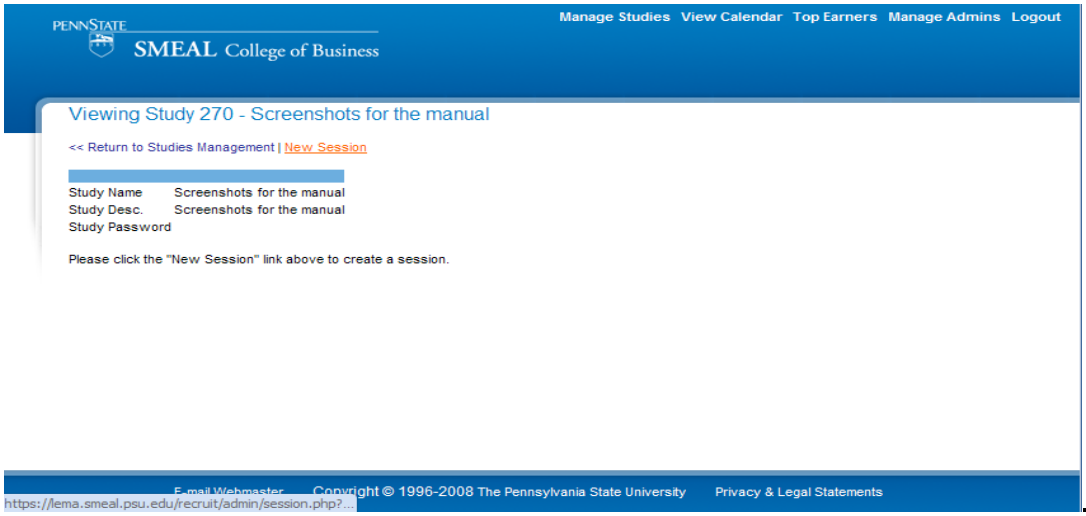

After that, you should get a green message that says the study has been added, and the study should be on the top of the list:



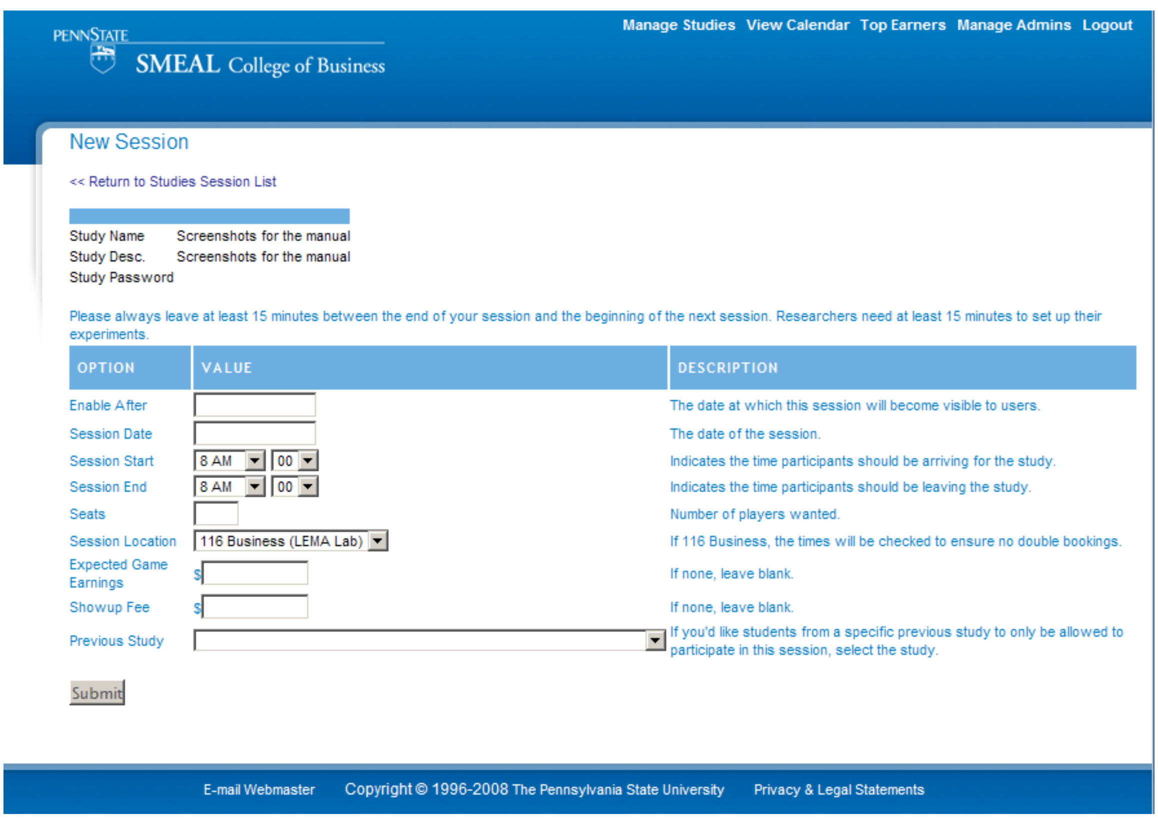

To add the sessions, click the "View" link, which is located on the column "Actions" (all the way to the right):



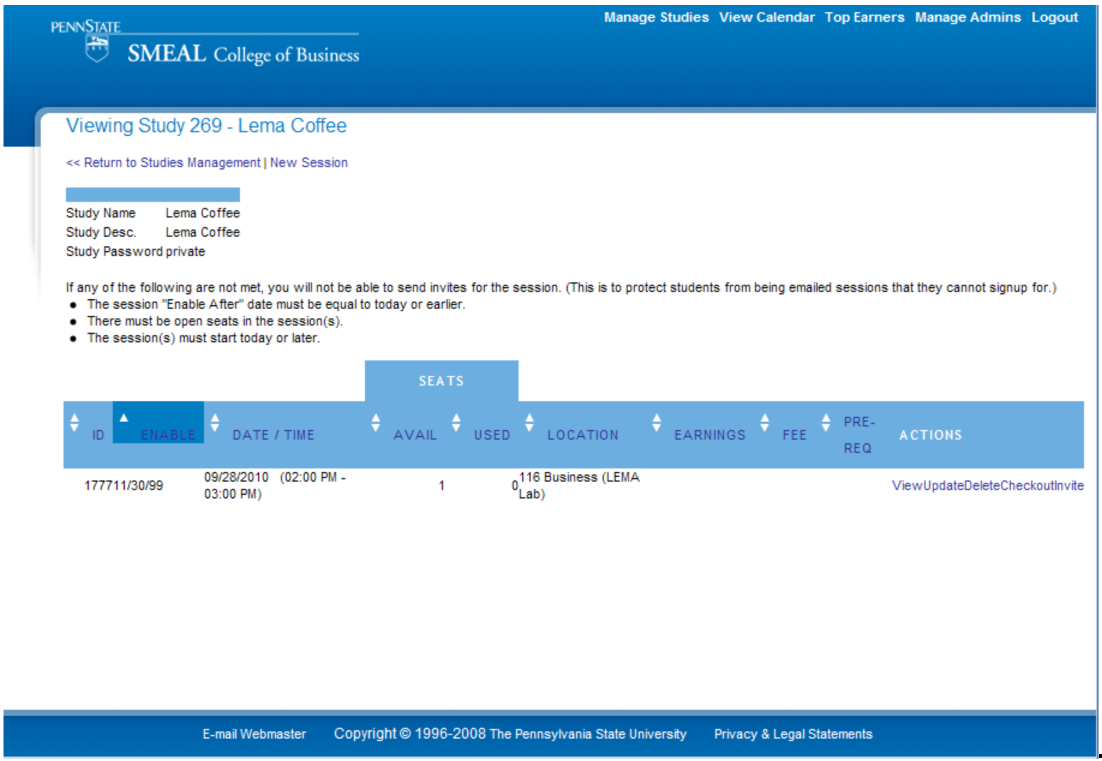

and then click on the "New Session" link:




Next you will need to enter the session information. The explanation of each field is written in the front. The "Showup Fee" is the money a subject gets if he or she shows up for the experiment, independent of participating. If you don't plan to pay people for just showing up, leave that blank. The field "Expected Game Earnings" is commonly used when subjects get a fixed amount, independent of their performance. If what they earn depends on how they perform in the experiment, we usually leave that field blank.

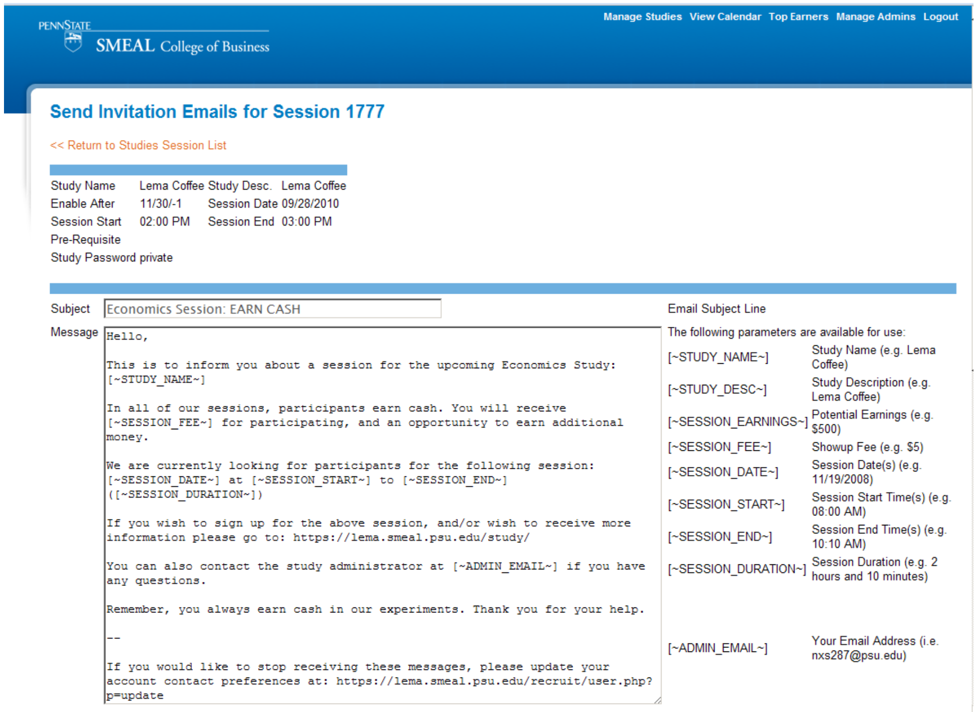


The number you enter in "Seats" establishes the number of spots available for people to sign up. We would like to tell you that if you put 20 and 20 people sign up, you'll have 20 subjects the day of the session, but that is not the case. If you absolutely need 20 subjects, you'll need to overbook (keep in mind that you'll have to pay the extras the show up fee). Once you are done entering the data, click "Submit", afterwards the session should be listed in the "Viewing Study" page:

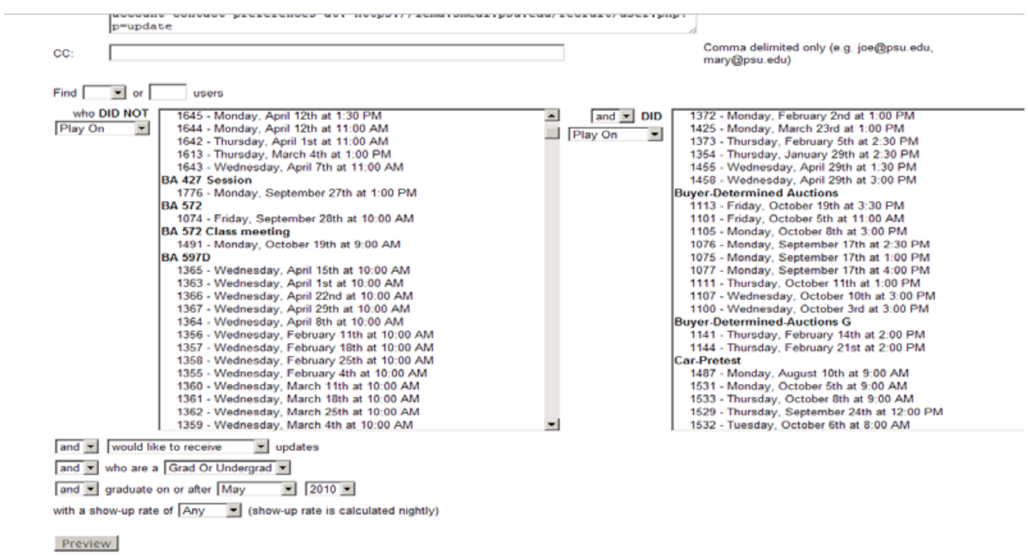



The columns "Avail" and "Used" under "Seats", tell you how many seats are empty and how many are used (so the sum of the two is the number of seats you made available for the session). The links below the "Actions" column work as follows: "View" shows you the list of people registered, you can add users manually by typing their psu user ids, "Update" shows you the information for the session (which you can edit), "Delete" deletes the session (you'll be ask twice, so no session is lost by a single click), "Checkout" produces a form for the financial office, that you need to print and subjects have to sign acknowledging the earnings they made in the experiment. It is imperative that every person that gets money from you signs the form (and it has to be the full signature, not the initials). Even the people you pay only the show up fee. "Invite" sends an e-mail to our subject pool advertising your experiments. If you want to use it, we recommend that you create all sessions in a study first, and then send the invitation e-mail just once, listing all the available sessions.

You can use the Invite template or you can write your own, but please make sure the information shown in the template is also in your own invitation e-mail:

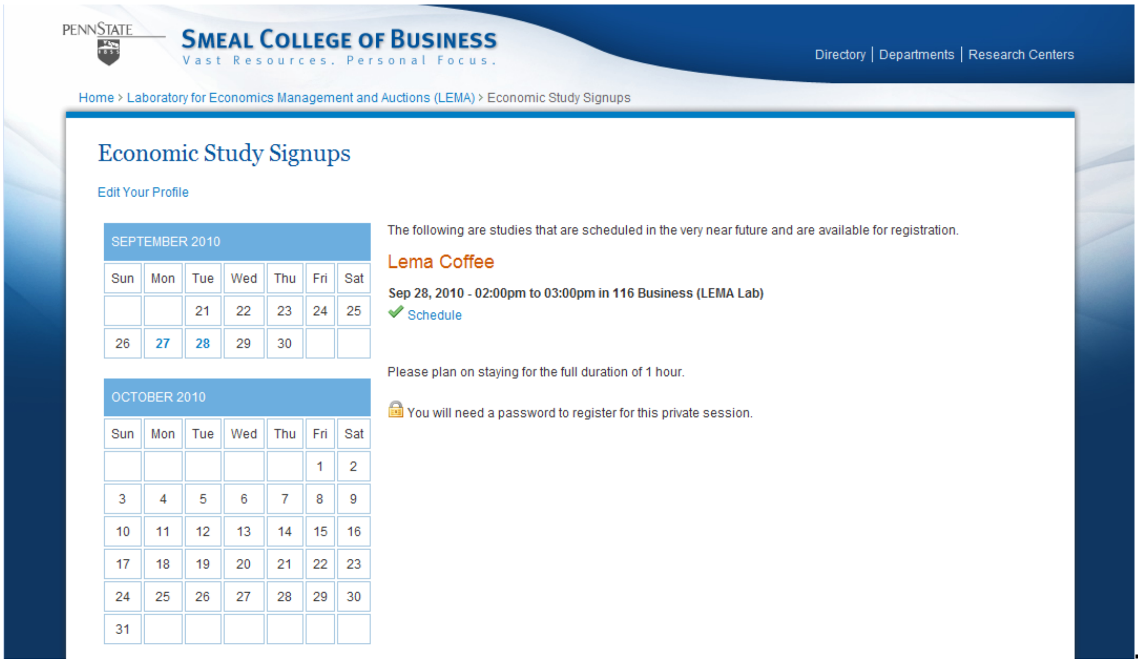



On the bottom of the page, you can select the number of people you want to send the e-mail to (we recommend using "All"). You can also specify if you want people that participated in past studies to receive (or not receive) the invitation. The next fields give you the flexibility to narrow the group you want to send the e-mail to:




After you are done editing the e-mail you can click on "Preview" and then on the "Send Emails" button. Once you click, it will take a little while for the message to be sent, so don't close the browser and please wait for it to be done. You should get a confirmation page and also an e-mail with the list of people that was invited to your sessions.

Once your sessions are online, subjects can sign up here https://lema.smeal.psu.edu/recruit/ (or https://lema.smeal.psu.edu/study/ ) , and they will see something like this (you can go to that link too, to make sure your sessions are visible):




If you want to see the status of your sessions, log in and then click "View" in the corresponding study. You'll get the list of the sessions with the corresponding used and empty seats.

Before running a session, make sure you have the items in the following check list:

- ✓ Check-out form for the financial office (remember to print it from the online recruitment system).
- ✓ Copies of the consent form for subjects.
- ✓ Copies of the individual check-out forms.
- ✓ Copies of the instructions.
- ✓ Payment for the subjects (they tend to prefer cash).

We provide the pens. You can find them in the cubicle behind the podium.

**After running a session, please go to its "View" link, and enter the attendance and participation information for each subject (with the corresponding earnings).** If a subject participated in the experiment please check both columns ("Attendance" and "Participated"), if a subject showed up, but didn't participate please check the "Attendance" link only. It is **crucial** that you do this as soon as you are done running the session, to prevent subjects for signing in other sessions of the same study. Also, the system updates the show up rates nightly, and it bans people with 3 non-shows, so please make sure you enter the information as soon as possible.

## Using the lab to run experiments

The lab has 30 computers that are connected to the Internet (the default browser is Internet Explorer), so you can use it to run web-based experiments. If you need to install additional software, please let us know (nsantam@psu.edu) so we can accommodate your request. In the next section we give you the basics of running experiments using z-Tree (http://www.iew.uzh.ch/ztree/index.php).

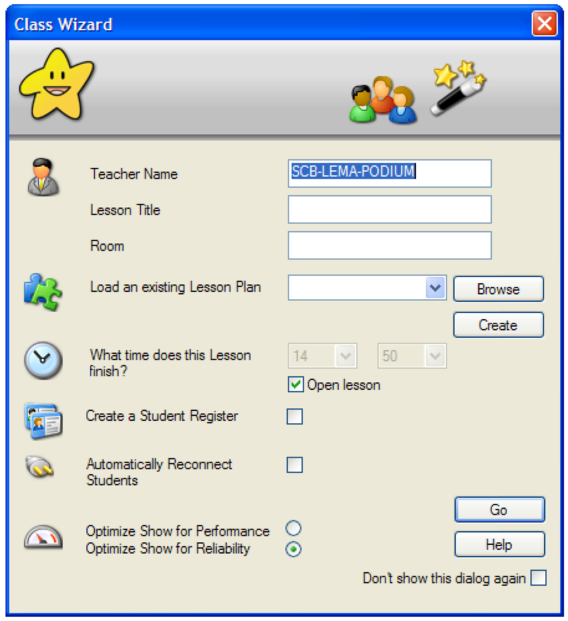
## Using the lab to run experiments with z-Tree

The lab has 30 computers that can run ztree files using up to 4 channels. You can log in the podium computer with your user ID.

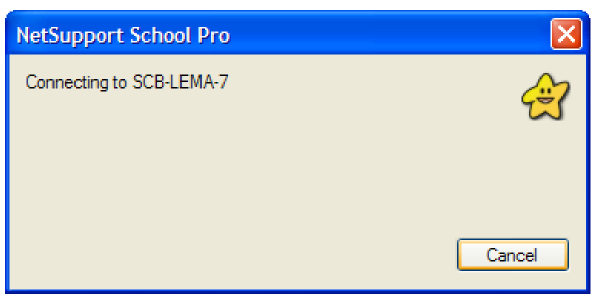
Once you are logged in, open your ztree files using the channel shortcuts from the desktop (“startztree3_ch1_podium.bat” for channel 1, “startztree3_ch2_podium.bat” for channel 2, “startztree3_ch3_podium.bat” for channel 3, and “startztree3_ch4_podium.bat” for channel 4):


Note that you may only require 1 channel to run small sessions, for bigger groups, we recommend you use more channels (2-4) and split the bigger group into subgroups for each channel.  Next, open the NetSupport Tutor. There is a shortcut in the desktop that looks like this:

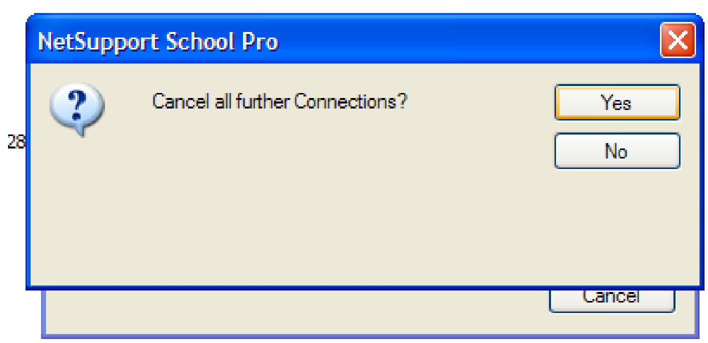
Click “Go” in the following window:



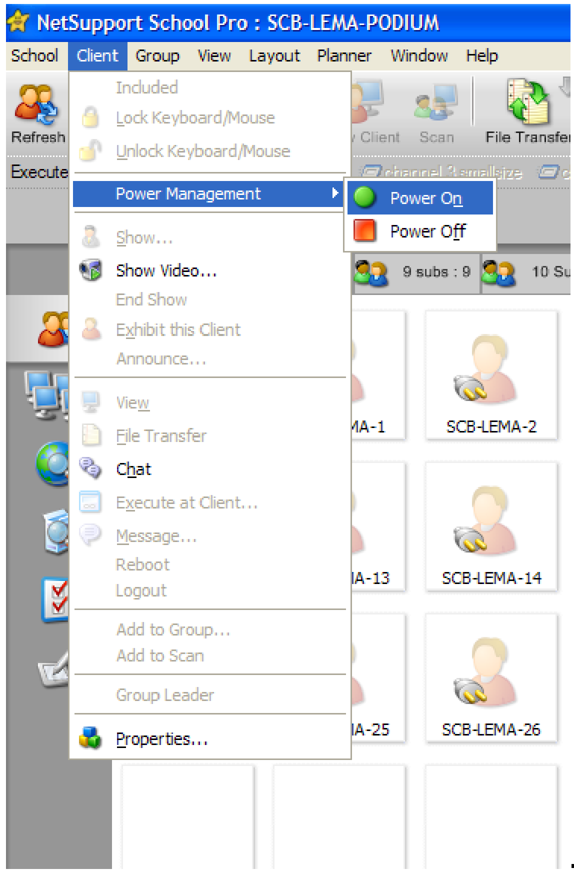

Since the computers are turned off, the podium won’t be able to connect with them. So click “Cancel” in this window:



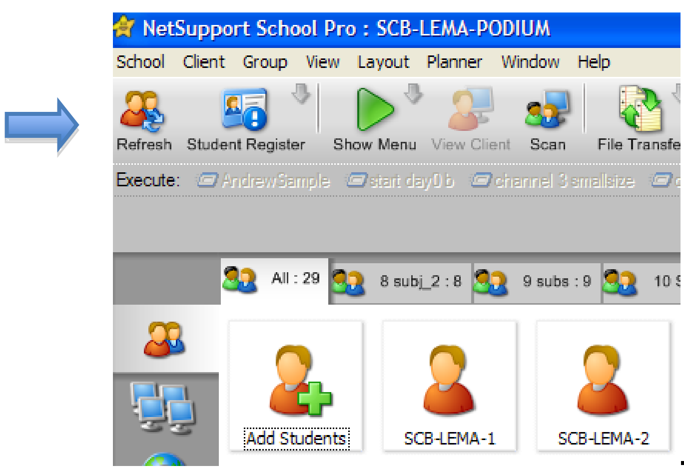

and “Yes” in this one:



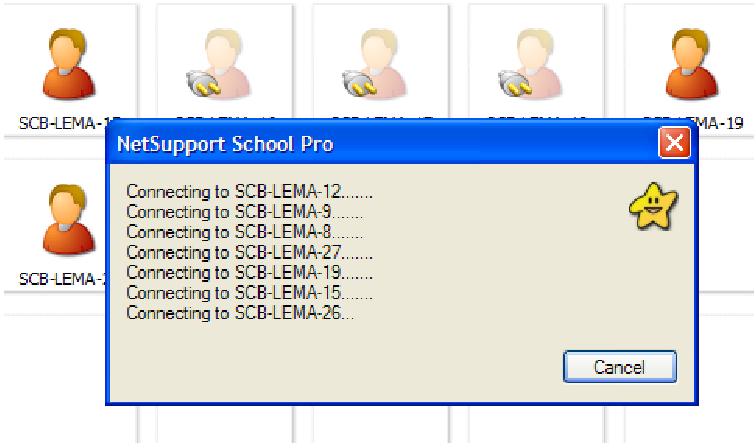
To turn the computers on, select "Client" from the menu, then "Power Management", and finally "Power On":



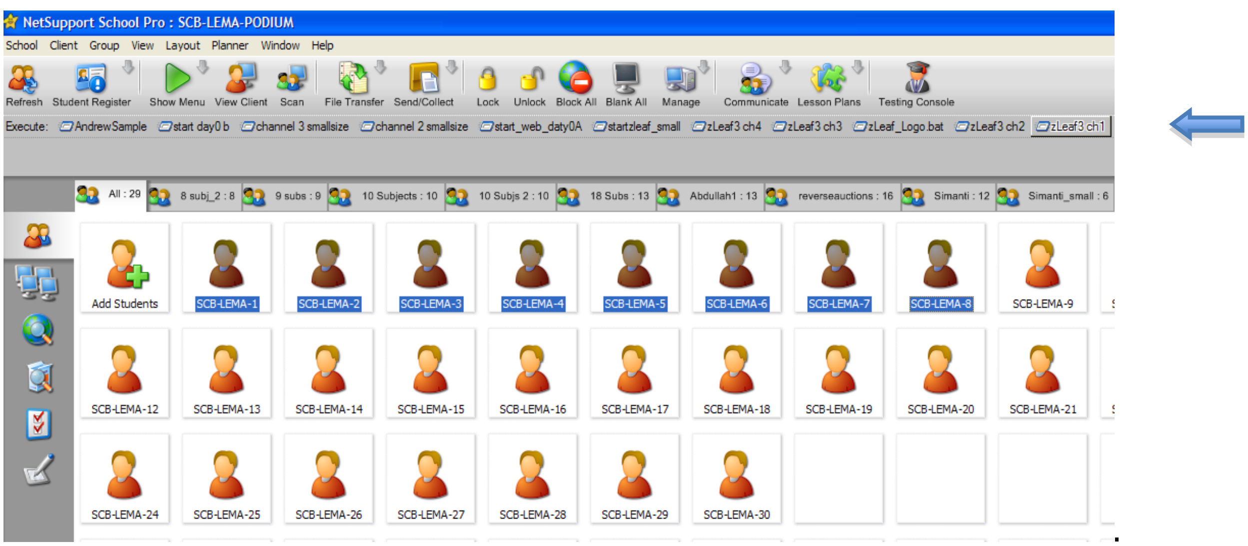

After you click "Power On" the computers should start turning on. Once all of them are on, you can connect them to the podium by clicking the "Refresh" button below the menu:



After you click on “Refresh”, you should see a window that tells you the computers are being connected:

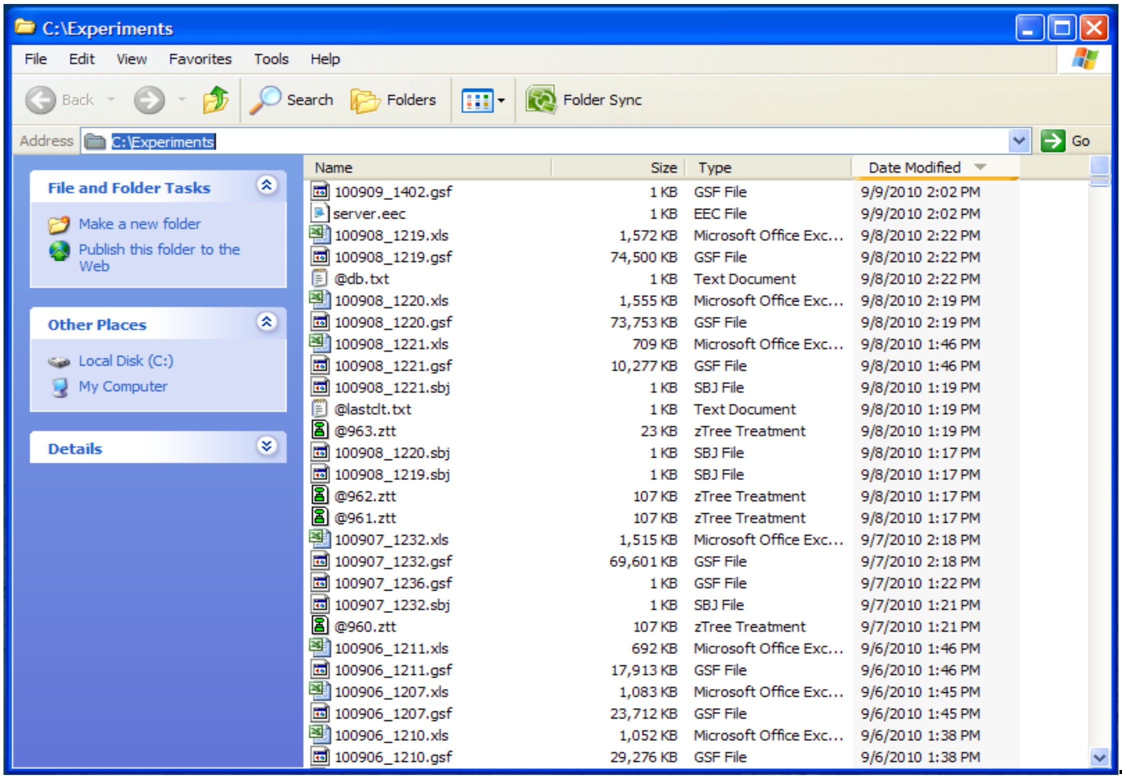



Once the subjects log in the computers, you can connect them to your ztree channels. To connect computers to each of the channels, select the computers and then click on the corresponding button: “zLeaf3ch1” for channel 1, “zLeaf3ch2” for channel 2, “zLeaf3ch3” for channel 3 and “zLeaf3ch4” for channel 4. The buttons are located in the “Execute” bar below the “Refresh” icon:




Once you have the computers connected to the desired channels, you can go back to the ztree files you opened at the beginning and start running the experiment.

When you are done, the file(s) with your data can be found in “C:\Experiments”. Sort the files by “Date Modified” (from newer to older), and yours should be on top:



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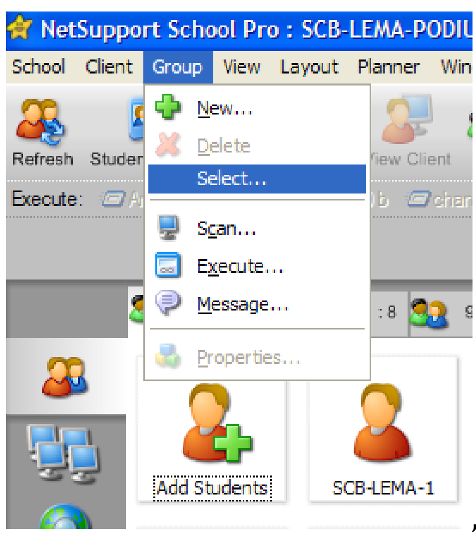
Before you leave, please close the z-Tree leaves in the computers (you need to hit Alt+F4 in each of them), and then turn them off from the podium: go to "Group" in the menu and click on "Select":



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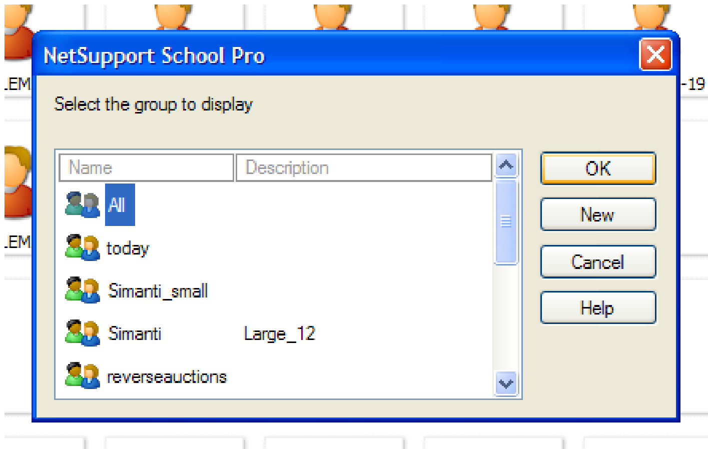
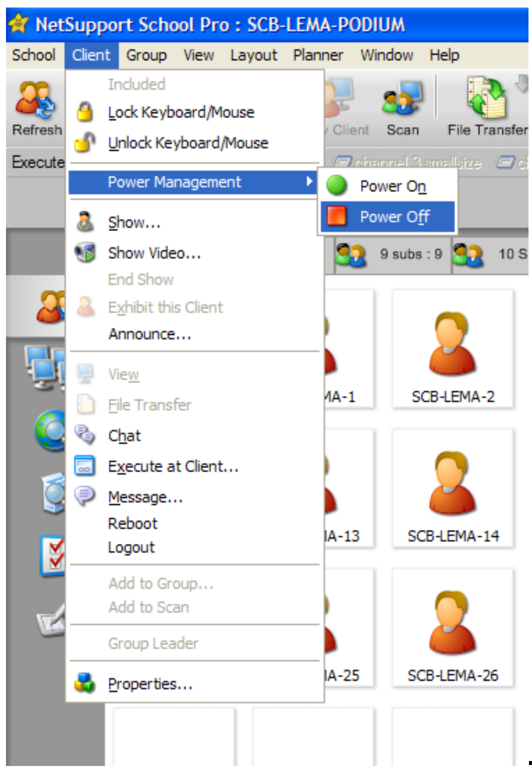
then select "All" and click "OK":




After you do that, go to “Client”, “Power Management” and click on “Power Off”:




Message windows displaying disconnection status of each computer should start popping out, click “OK” (or hit “Enter”) in all of them. After that, you can close NetSupport.

Remember to log off the podium, and please make sure lights and computers are off when you leave (you don’t need to turn the podium computer off).